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ABSTRACT

This report describes the evolution of public investment under the structural adjustment program, and pays particular attention to the process by which the public investment program is prepared and monitored. It analyzes the three-year public investment program prepared by the Jamaican Government in November 1984 from a macroeconomic perspective and reviews its strategy for each sector. In general, the composition and priorities of the investment program are consistent with Jamaica's structural adjustment goals. Major challenges facing the country are mobilizing private investment and increasing the efficiency of public investment as macroeconomic events constrain resources available to the public sector. The Government has made substantial progress in institutionalizing the PSIP process; a major priority at present is the integration of PSIP planning with the budget process. The PSIP monitoring process needs to be strengthened by consistent followthrough of monitoring reports by program managers and by development of appropriate management information systems in Government ministries and agencies.

Note: The public investment financing plan, drawn up in November 1984, uses an exchange rate of J$4.5 = US$1.00. By the time of the 1985/86 budget the rate was J$5.5 = US$1.00. Thus, the figures in this report are not consistent with the FY85/86 budget, although the composition of the capital program in real terms remains essentially unchanged. Moreover, ongoing discussions with the IMF suggest that both net external borrowing and repayments to the banking system will be substantially higher for the period than projected in the PSIP. The main policy conclusions of the report nevertheless remain unchanged.

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Summary and Conclusions

i. Jamaica embarked in 1981 on a stabilization and structural adjustment program designed to stimulate growth, reorient the economy towards the export sector, and correct fiscal and balance of payments imbalances, with particular emphasis on the role of the private sector. An important part of the structural adjustment program was the adoption of a three-year public investment program and financing plan, to be annually reviewed and updated. The focus on a multi-year public investment program had a number of different objectives: (i) to permit an overall view of the entire public sector, including the Central Government and all the major public enterprises, in terms of the investment effort and its fiscal and monetary impact; (ii) to enable the Government to gain better knowledge and control of the investment and financial performance of the public enterprises; (iii) to forecast the implications of existing investments for the future fiscal situation; and (iv) to help ensure that the public investment program supported the goals of the economic stabilization and structural adjustment programs.

ii. The role of the public sector in the economy has shifted dramatically in the last decade. Public investment amounted to 3% of GDP and about 10% of total capital formation in 1972-74; ten years later it was on the order of 10% of GDP and almost half of total capital formation. Despite serious fiscal constraints and active efforts to encourage the role of private investment, public investment has remained at comparable levels during the past five years. During that time, while it has not undergone major restructuring, the public investment program has been reoriented in a number of ways to support the structural adjustment effort.

iii. First, the sectoral allocation of investment has shifted, with reduced proportions of capital expenditures allocated to the directly productive sectors and to social infrastructure, and an increased focus on public utilities and transport. At the same time, the strategy of expenditure has changed. Direct investment in the productive sectors (agriculture, industry and tourism) has been reduced. The Government has relied increasingly on credit programs administered by the publicly-funded National Development and Agricultural Credit Banks to facilitate private production and investment in the main productive sectors. The Government has also attempted to foster private investment by strengthening its promotion efforts, by pursuing joint venture arrangements with private sector investors, and by seeking divestment, or long-term lease, of Government assets. The investment program has focused as well on the rehabilitation and improved management of essential infrastructure (power, water, roads). In the social sectors, the Government has disengaged from direct implementation of low income housing projects, leaving housing finance to the National Housing Trust and private financial institutions. Investments in the health sector have been limited, to slightly over 2% of total capital expenditures; the main items of expenditure have been upgrading of hospitals and health centers, technical assistance, and equipment. Expenditures on education, however, have been substantially increased, almost doubling as a percent of GDP. The main items of expenditure have been rehabilitation and upgrading of primary and secondary

schools, as well as vocationally-oriented training. A final change in orientation is reflected in the increasing allocation for technical assistance; expenditures on technical assistance and training increased almost 400% as a percent of GDP in the last three years.

iv. In general, the 1981/82-1984/85 public investment program reflects some major accomplishments. First, the Government substantially reduced capital transfers to the rest of the public sector. In the past, equity or loan contributions to finance accumulated losses of the public enterprises were included in the Central Government capital budget; these have been reduced as the financial performance of most public enterprises has improved. Transfers to agriculture marketing boards have also been eliminated as the boards have been put on an economic basis; a number of agricultural programs which in effect provided subsidies to farmers (nursery development; coffee pest control; spraying of bananas) have been passed back to the farmers, at the same time adjustments in the exchange rate have provided improved return for export crops. Other disguised current expenditures in the capital program (such as the special employment program) have also been eliminated. As a consequence of these developments, capital formation represents an increasingly larger share of total capital expenditures, up from about 66% to about 79%.

The PSIP Process

v. As part of its structural adjustment program, in 1982 the Government adopted a systematic approach to preparing a public sector investment program, which led to the development of the present system for preparation and monitoring. The PSIP has now been rolled over four times, and has progressed from a list of projects to a useful planning tool, consistent with a reasonable estimate of available resources. Perhaps the most striking characteristic of the formulation and monitoring process is the number of agencies involved. Their efforts are coordinated by a permanent Government committee called the Standing Working Group (SWG), consisting of high level representatives from all the relevant agencies and supported by a small Secretariat made up of staff from the Ministry of Finance and the Planning Institute. The SWG has the final responsbility for the formulation of the three-year PSIP and financing plan and its submission to the Prime Minister and the Cabinet.

vi. An important priority in strengthening the PSIP preparation and monitoring process is to fully integrate it with the budgeting system. A first step in this process would be to time the PSIP roll-over to coincide with the annual budget, so that the first year of the PSIP will be exactly the same as the capital budget for that fiscal year. This integration would have disciplining effect, in that the investment program would be brought fully in line with the reality of budget constraints. It also eliminates the extra effort involved in undergoing what are essentially two budgeting processes annually. This procedure could be adopted for the FY86/87 budget, and the roll-over of the public investment program consequently delayed until then. At the same time, the Ministry of Finance and Planning (MOF) needs to play a more central role, working closely with the Planning Institute (PIOJ) in order to ensure that realistic estimates of resource availabilities are fully reflected in the program on a consistent basis. Inadequate staffing and resources have limited MOF's

capability in this area, but as the ongoing strengthening program for MOF proceeds, the Budget Division and the Public Enterprise and External Loan Monitoring Units in the MOF should make a greater contribution to the PSIP, and the MOF should eventually take on a coordinating role. With the introduction of performance budgeting, over the medium term, the Government might consider moving in the direction of a three year public expenditure program and financing plan, including both recurrent and capital expenditures; the first year of such a program would constitute an integrated public sector budget, including both Central Government and public enterprises. This approach would permit more informed choice among competing alternative uses for scarce financial and manpower resources. It would probably require adoption of a common financial year for public entities as well as consistency among accounting systems.

vii. The Government might strengthen the PSIP process in a number of additional ways. In regard to project selection, projects within the same sector are presently ranked relative to other projects according to a 25 point scale, with varying weights given to a variety of factors, including location, rate of return, employment benefits, and length of implementation. Only one of these factors is the economic rate of return, and it accounts for a minority of the total points available. It would be preferable if factors like employment, balance of payments impact and length of implementation were taken into account in the economic analyses through shadow pricing and sensitivity analysis. We recommend that the PIOJ move toward a system which ranks projects within the same sector according to anticipated economic rate of return which includes a full analysis of social costs. A second problem arises from the fact that many projects executed by public enterprises (which account for about 40% of the public investment program) escape careful initial review by PIOJ and the Pre-Selection Committee before inclusion in the Government's capital program. It is important to assess public enterprise projects in the context of the Government's overall priorities, and it accordingly would be useful if public enterprise projects over J$1 million in size were reviewed by the PIOJ and the Pre-Selection Committee. Some other suggestions to improve the efficiency and consistency of the PSIP process would be adoption of an index numbering system and PIOJ's provision of uniform guidelines to the operating ministries in regard to inflation and exchange rate assumptions. The Government also needs to identify priorities within the PSIP, so that in the event financing availabilities are reduced, scarce resources are used to complete priority projects. Coordinators of the PSIP need to be careful that attractive available external financing does not drive project decisions, since there are many other costs--both financial and nonfinancial--which need to be taken into consideration.

viii. The preparation of a public investment program becomes an academic exercise unless prompt feedback in a usable form is available to program managers on the execution of projects. The Government's monitoring system has been weakened by inconsistencies between data requirements and accounting systems, the lack of appropriate management information systems in many ministries, and the heavy reporting requirements placed on implementing agencies. Difficulties in receiving timely information from public enterprises have been especially severe. The first emphasis of any monitoring system needs to be the enabling of executing agencies to monitor their own programs effectively. Internal agency data and analyses should

form the substance of any central monitoring report. In this regard, the Government's ongoing Administrative Reform Program has begun the process of restructuring the civil service on performance lines, including the development of appropriate management information systems. The existing monitoring system will need to be integrated with those systems as they are put in place.

The 1985/86-87/88 Investment Program and Financing Plan

ix. The 1985/86 - 1987/88 public investment program, amounting to about J$3.3 billion, was developed in the context of a stringent fiscal and monetary adjustment program and is intended to constitute a priority group of investments. It was developed as an operational tool, and as a matter of policy included no new projects unless financing had been firmly identified. Ongoing projects and programs constitute four-fifths of total projected expenditure. Approximately 80% of the program is allocated for fixed capital formation. Another 9% is designated for "software", i.e. research, training, and technical assistance. The remainder reflects transfers to the nonconsolidated public sector and abroad, the purchase of assets, and current expenditures included in the capital budget. The proportion of capital formation in the projected PSIP is higher than the 72% average of the last 3 years, reflecting the leanness of the current program and the reduction of transfer payments in recent years.

x. In general, the sectoral composition and priorities of the 1985/86-1987/88 investment program are appropriate and consistent with Jamaica's development strategy as embodied in the structural adjustment program. In regard to particular sectors, the main conclusions and recommendations were as follows:

> In the productive sectors, the public sector will need to play a leading role in attracting private investors through provision of credit, participation in joint venture, and provision of essential infrastructure. The Kingston "free-zone" project has been quite successful; the concept might be expanded to other areas including agriculture. A medium term development plan is badly needed for agriculture. In tourism, the Government might begin to think of ways the industry might contribute financially to the Tourist Board, and pursue the divestment of a number of small enterprises.
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> In the area of economic infrastructure, the Government is correctly focusing on maintenance and mild upgrading of existing facilities. In view of the difficulties facing the bauxite sector, however, there is a great deal of uncertainty in regard to the Railway Company, which is still in a net loss position. The maintenance and rehabilitation allocation for main roads is inadequate to prevent further serious deterioration of the main road system. In energy, lack of coordination among involved institutions creates problems for project implementation. The relative roles of these institutions should be clarified as soon as possible.

In the area of social infrastructure, Jamaica has established high levels of service compared to many developing countries. The main objectives are to maintain existing standards and to increase the efficiency in the use of scarce budgetary resources. In regard to health, the level of care is reasonably satisfactory; the public investment program is correctly directed at further reducing the birth rate and improving the efficiency of health services. In the area of education, the main focus is currently on basic education and manpower training. The investment program in education and training accounts for 10% of the total PSIP; its counterpart fund requirements, however, have been underfunded by about US$20 million. The main issues are the need for more accurate assessment of recurrent cost implications, a careful review of comparative unit costs under different training programs, and better coordination among training institutions.

xi. Financing Plan. The financing plan for the projected 1985/86-1987/88 PSIP is based on a decline in the reliance on net external and domestic borrowing and an increase in the contribution of public sector savings (see Table 7). Public sector savings, which covered one-fifth of the capital program in 1984/85, are projected to finance well over two-thirds of the program by the end of the period. The financing plan also includes a targeted reduction in the net indebtedness of the public sector to the domestic banking system, required in order to meet a planned increase in net international reserves. A major reduction in the public sector's liabilities to the domestic banking system already has taken place during 1984/85. (The projections for this component of the financing plan are indicative, pending preparation of a medium-term scenario by the GOJ during negotiations for the next Stand-by Arrangement.) These are ambitious targets, but their accomplishment is essential in view of Jamaica's difficult external debt situation. Achievement will require reduction in the size of the public sector and increases in its efficiency over the period.

CHAPTER I - PUBLIC INVESTMENT UNDER THE STRUCTURAL ADJUSTMENT PROGRAM

1. Jamaica embarked in 1981 on a stabilization and structural adjustment program designed to stimulate growth, reorient the economy towards the export sector, and correct fiscal and balance of payments imbalances, with particular emphasis on the role of the private sector. An important part of the structural adjustment program was the adoption of a three-year public investment program and financing plan, to be annually reviewed and updated. The focus on a multi-year public investment program had a number of different objectives: (i) to permit an overall view of the entire public sector, including the Central Government and all the major public enterprises, in terms of the investment effort and its fiscal and monetary impact; (ii) to enable the Government to gain better knowledge and control of the investment and financial performance of the public enterprises; (iii) to forecast the implications of existing investments for the future fiscal situation; and (iv) to help ensure that the public investment program supported the goals of the economic stabilization and structural adjustment programs. In addition, Bank involvement in the review of the PSIP was designed to supplement the role of the IMF in the Government's fiscal stabilization program.

2. During the negotiation of the first structural adjustment loan, the Government and the Bank agreed that total public capital expenditures would be limited to no more than 15% of GDP in order that adequate resources would be available for private sector investment. In practice, however, fiscal constraints and the limited execution capability of the public sector maintained expenditures below this level. With the support of Bank-financed technical assistance, the Government established institutional arrangements for the formulation of the public investment program, as well as the preparation of quarterly reports on its progress. The public investment program has been prepared and rolled over four times, and the PSIP document has progressed from a list of projects to a useful planning tool, consistent with a reasonable estimate of available resources.

Table 1: PUBLIC CAPITAL EXPENDITURES AS % OF GDP

	1981/82	1982/83	1983/84	1984/85	TOTAL
Directly Productive Sectors	3.7	3.8	2.8	2.9	3.2
Economic Infrastructure	6.0	5.6	5.0	8.1	6.4
Social Infrastructure	3.0	2.8	1.8	1.6	2.2
Administration	1.1	0.8	0.9	1.5	1.1
Total	13.6	13.0	10.6	14.1	12.9

3. Historical analysis of the PSIP is difficult because consolidated data on public investment spending are not available for the 1970s, largely because of lack of information on public enterprises. The public investment estimates in the national accounts represent Central Government

capital expenditures only; accordingly the historical data do not fully reflect the impact of an expanding public sector in the 1970s. In general, the role of the public sector has shifted dramatically, with public investment amounting to about 3% of GDP and about 10% of total capital formation in 1972-74, and averaging 10% of GDP and almost half of total investment during 1980-1984. Despite fiscal constraints and active efforts to encourage the role of private investment, public investment has remained at high levels during the past five years. This report will focus largely on that period.

4. Although the public investment program has not undergone major restructuring, it has been reoriented in a number of ways during the past four years to support the structural adjustment effort. First, the sectoral allocation of investment has shifted, with reduced proportions of capital expenditures allocated to the directly productive sectors and to social infrastructure, and an increased focus on public utilities and transport. At the same time, the strategy of expenditure has changed. Direct investment in the productive sectors (agriculture, industry and tourism) has been reduced. When it has been undertaken, it has been structured with private sector management (Eastern Bananas) or as a prelude to divestment efforts (National Hotels and Property hotel refurbishment). Exceptions have been an IDB-financed project to expand cement production, which is managed by the Cement Company, Ltd, a subsidiary of National Investment Bank of Jamaica (NIBJ), and a Japanese-financed coffee development project with a rural development orientation. The Government has relied primarily on credit programs administered by the publicly-funded National Development and Agricultural Credit Banks to facilitate private production and investment in the main productive sectors; resources equivalent to about US$60 million have been provided to these institutions during the past three years. The Government has also attempted to foster private investment by strengthening its promotion efforts (in 1982 it established a new agency, Jamaica National Investment Promotion, to carry out this function), by pursuing joint venture arrangements with private sector investors, and by seeking divestment, or long-term lease, of Government assets. In this regard, the National Investment Bank of Jamaica (formerly the Jamaica National Investment Corporation) is being restructured to focus entirely on these two latter functions, and in 1984 a number of Government companies were shifted to its portfolio for management with a view to eventual lease or divestment. It must be recognized, however, that the Government has so far been unable to induce private investors to take majority positions in these joint venture arrangements; as a consequence the investments have been either majority Government-owned or entirely Government-owned with private sector management contract arrangements.

5. In regard to capital expenditures on economic infrastructure, the Government's main focus has been the rehabilitation and improved management of the Jamaica Public Service Company (power) and the National Water Commission, rehabilitation and maintenance of main roads and upgrading of the rural roads, and expansion of capacity in the following areas: purchase of additional ships by Jamaica Merchant Marine, purchase of eight locomotive engines (with French suppliers' credits) for the Jamaica Railway Company, the purchase/leaseback of three airbuses by Air Jamaica, and the purchase of a diesel generator (with highly concessional suppliers'

credits from Japan) for JPS. Work has also begun on the Blue Mountain water supply project, which is directed at installing pipes to transport water to Kingston from the southeastern region of the Blue Mountains. In FY82/83, the Government also acquired the ESSO petroleum refinery, in order to prevent its closure. While the focus of these expenditures on rehabilitation and maintenance has been appropriate, the purchase of certain assets, such as the locomotives and the refinery, is difficult to justify fully on economic grounds, particularly when the economic growth projected in the early 1980s did not materialize. In addition, the availability of suppliers' credits on attractive terms may have created an artificial inducement for some of these investments.

6. Capital expenditure on the social sectors has also been restructured. The Government has disengaged from direct implementation of low income housing projects; housing finance has been left to the National Housing Trust (a statutory body largely funded by payroll deductions) and private financial institutions. Investments in the health sector have been limited, averaging slightly over 2% of total capital expenditures; the main items of expenditure have been upgrading of hospitals and health centers, technical assistance, and equipment. Expenditures on education, however, have been substantially increased, almost doubling as a percent of GDP. The main items of expenditure have been rehabilitation and upgrading of primary and secondary schools, as well as vocationally-oriented training launched by HEART, an institution created in 1982, funded through an earmarked payroll tax and through the budget, with the objective of providing vocational training to school leavers and the hard-core unemployed.

7. A final change in orientation is reflected in the increasing allocation for technical assistance; expenditures on technical assistance and training increased almost 400% as a percent of GDP in the last three years. About J$94 million was directly allocated for technical assistance and training in FY1984/85; however, this substantially understates the amount of ongoing technical assistance in Jamaica, since it excludes project-related technical assistance as well as USAID and UNDP funded programs. These increased levels reflect an intensive effort to restructure economic policy, to radically improve public enterprise performance, and to strengthen public sector institutions. In the face of a civil service badly depleted in skills and middle management, reliance on externally financed expertise appeared to be the only way to accomplish these objectives. Increased reliance on technical assistance has brought problems with it, however. Resentments arising from the substantial salary differential between the largely expatriate consultants and Jamaican nationals have arisen. A lack of coordination has resulted in frequent duplication of effort. It has not been unusual to find the expatriate consultants in a ministry substantially outnumbering skilled Jamaican staff. Under these conditions, external technical assistance is not always effectively utilized.

8. In general, the 1981/82-1984/85 public investment program reflects some major accomplishments. First, the Government substantially reduced capital transfers to the rest of the public sector. In the past, equity or loan contributions to finance accumulated losses of the public enterprises were included in the Central Government capital budget; these have been reduced as the financial performance of most public enterprises

has improved. Transfers to agriculture marketing boards have also been eliminated as the boards have been put on an economic basis; a number of agricultural programs which in effect provided subsidies to farmers (nursery development; coffee pest control; spraying of bananas) have been passed back to the farmers, at the same time adjustments in the exchange rate have provided improved return for export crops. Other disguised current expenditures in the capital program (such as the special employment program) have also been eliminated. As a consequence of these developments, capital formation represents an increasingly larger share of total capital expenditures, up from about 65% to about 72%. The Government has also succeeded in substantially improving the performance of the electricity and water utilities, thus reducing the severe constraint to production and investment they formerly constituted.

Project Implementation

9. A number of implementation problems affected the investment program during the past four years. Few of these are new; many, however, became more apparent in the charged atmosphere of economic reform. First, a severe shortage of resources, both human and financial, adversely affected implementation of many projects. In almost every year, available financial resources fell substantially short of original budget allocations. In addition, the monthly budgetary warrant system was used to maintain expenditure levels within certain bounds so that IMF targets for net lending to the public sector were not breached. As a consequence, budgeted resources bore little relation to actual availabilities, and investment program managers did not know from month to month what actual funds would be made available. The shortage of mid-level management staff also contributed to delays in project execution, particularly in the Ministries of Construction and Education, and necessitated reliance on expensive expatriate consultants. These consultants were also underutilized as a consequence of the funding problems.

10. A second serious problem has been the lack of routine maintenance allocation in the recurrent budget for roads, schools, government buildings--almost all public assets. Inadequate maintenance led to severe difficulties in the power company in 1981/82 and 1982/83, affected the operation of publicly owned sugar companies, and kept a substantial proportion of Government-owned equipment from useful service. The lack of maintenance reflects in part constraints on foreign exchange which led to difficulties in procuring spare parts in the late 1970s and early 1980s. Even when spare parts were available, the constraint on domestic resources was a controlling bottleneck. But the problem is more fundamental than financing availability. Regular scheduled maintenance systems have not been established in most Government ministries, and routine maintenance programs have been the first to be affected when budget funds have been constrained. To some extent, the historical bias of international agencies may have contributed to this orientation; investment "projects" are considered "good" spending, while current expenditures are viewed as "bad" spending, which must be constrained to generate public sector savings. External financing can be identified for rehabilitation projects, but routine maintenance can only be funded out of the budget. It is vital that greater priority be given in the future to developing and sustaining routine maintenance systems for Government buildings, equipment, roads, schools, hospitals, and health centers.

11. Adequate staffing and equipment of these facilities is a related problem. Constraints on salaries for managerial, professional, and skilled civil servants had led to severe understaffing and high levels of vacancies in all Government ministries, inadequate levels of training for teachers, and hospitals and health centers lacking sufficient doctors, nurses, and other staff. This type of constraint renders many Government assets virtually useless. Except in unusual circumstances, it would be unwise for the Government to acquire or construct additional assets until satisfactory maintenance systems are in place and means of staffing and equipping existing assets have been identified.

12. Another area of concern in the implementation of the investment program arises from policy innovations introduced in the past three years. This has been accompanied by the creation and staffing of a number of new agencies, including Agro 21, Jamaica National Investment Promotion (JNIP), and HEART, etc. to execute urgent programs. These agencies have been given priority in terms of staffing and financial resources. While this approach is an understandable way of escaping existing constraints in the civil service, it has created some difficulties. First, the role of the new entity relative to previously existing institutions has not been adequately defined, resulting in duplication of effort. In addition, public institutions have ended up competing for scarce staff. Ministry of Agriculture, for example, has been substantially depleted during the last three years, losing staff to both Agro 21 and the Planning Institute, as well as the private sector. At times, the cost effectiveness of new programs has not been adequately examined. For example, economic appraisals of NIBJ joint venture projects have sometimes been inadequate. Also, an occasional lack of policy coordination between institutions in the same sector leads to inconsistent actions and discontinuities in the public investment program. While over the short term this problem will be difficult to correct, over the long term stronger civil service institutions should mitigate the need for new institutions to carry out specialized programs.

CHAPTER II - THE FORMULATION AND MONITORING OF THE PUBLIC SECTOR INVESTMENT PROGRAM

13. Jamaica prepared multi-year public sector investment programs in the 1970s, usually at the instigation of multinational lending agencies in the context of program lending. These have frequently been ad hoc, and have not been used as planning or budgeting mechanisms. In 1982, as part of the structural adjustment program, the Government enlisted the support of Bank-financed consultants in developing a systematic approach to preparing a public sector investment program, which led to the development of the present system for preparation and monitoring. This chapter will review and evaluate that system.

14. Perhaps the most striking characteristic of the public investment program formulation process is the multiplicity of agencies involved. This reflects the fragmented nature of the public sector in Jamaica, which has seen the development over the last fifteen years of over 100 statutory bodies and/or public sector enterprises. Many of these have policy planning or public service functions and have been established as separate entities to escape the salary limitations imposed by the civil service. In addition to the line ministries, who initiate investment ideas and implement projects, the Ministry of Finance and Planning, the Planning Institute of Jamaica, the Project Analysis and Monitoring Company, the Ministry of Public Service, the Bank of Jamaica, and the Prime Minister's Office are all involved in the preparation and monitoring of the public investment program. The relative roles of these institutions overlap and are loosely defined. Occasional institutional rivalries complicate the task of putting the investment program together.

15. In recognition of the fragmented nature of the public service and the diffusion of responsibilities, the 1982 consultant team recommended the constitution of a permanent, Government committee called the Standing Working Group (SWG). Established in 1982, the SWG was chaired by the Financial Secretary, and had high level representatives from Budget (MOF); Public Enterprises Unit (MOF); PIOJ; Ministry of Public Service; PAMCO; the Prime Minister's Office; the Ministry of Construction; and the Ministry of Agriculture. When the then-Financial Secretary became Governor of the Central Bank and Fiscal Adviser to the Prime Minister in 1983, he maintained the chairmanship of the SWG.

16. The SWG's main responsibility is the formulation of the PSIP and financing plan and its submission to the Prime Minister and the Cabinet. It coordinates the work done by different Government agencies including obtaining information on the status of ongoing projects; formulating and issuing overall development policy guidelines for the PSIP; consolidating data obtained from ministries and public enterprises, in order to produce a summary of the demand for investment resources to be included in the PSIP; balancing supply and demand for investment resources in cooperation with Government policy guidelines; and preparing a financing plan for the program. A small staff drawn from MOF, PIOJ and PAMCO serves as Secretariat to the SWG. It is important to note that the SWG does not operate independently of Government ministries and agencies, but mainly as a mechanism to coordinate what is a multiagency task. Key staff members in the Ministry of Finance and the Planning Institute do most of the work

involved in pulling together the program. The contribution of each agency to the work of the Standing Working Group is set out below.

17. Ministry of Finance and Planning (MOF). The MOF makes estimates of the total financial resources available during the programmed period, and coordinates the preparation of the capital budget at the beginning of each fiscal year. The public enterprises unit in the MOF prepares projected budgets and capital expenditures for public enterprises, in coordination with public enterprise staff. MOF also is required to approve and sign all Government or Government-guaranteed loans.

18. The Planning Institute of Jamaica. The PIOJ is chiefly responsible for formulating the Central Government investment program, based on proposals from the line ministries. It initiates the roll-over process by sending out forms requesting project information from Government ministries, usually in June. The PIOJ also formulates and issues overall development policy guidelines for the preparation of the PSIP. PIOJ reviews the ministries' ranking of projects within their respective sectors. Theoretically, PIOJ also ranks projects among sectors, but to date little has been done in this area. PIOJ runs a Project Development Unit which provides support to Governent ministries in the preparation and appraisal of projects, and does economic analyses for projects in the Program. PIOJ also has responsibility for coordinating relationships with donors for project financing, as well as free-standing technical assistance.

19. Project Analysis and Monitoring Company. PAMCO primarily has a monitoring and post-audit function. It prepares detailed reports on the execution of most of the major projects in the Central Government's investment program for the benefit of the ministries and the Prime Minister's office. This report is one input (chiefly in regard to physical progress) into the preparation of the quarterly PSIP report distributed to the Prime Minister and the Bank on the progress of the investment program overall.

20. Line Ministries. The line ministries formulate prioritized sectoral investment programs which are submitted to the Planning Institute for review and submission to the pre-selection committee.

21. Bank of Jamaica. Bank of Jamaica reviews the investment program to ascertain its implications for the foreign exhange budget and banking system credit requirements, and to make certain it is consistent with the fiscal and monetary stabilization program.

22. This diverse distribution of responsibilities reflects Jamaica's institutional situation, wherein at least three Government entities are carrying out financial and planning functions. This in turn reflects serious weaknesses in the Ministry of Finance and Planning which is badly understaffed and underequipped, and has consequently been unable to play a greater role in the formulation of the PSIP. While at present, the Standing Working Group appears to be the only feasible means of coordinating activities connected with the PSIP, as the institutional strengthening program recently launched proceeds, the MOF should be able to play a more central role, and in close cooperation with the PIOJ, act as coordinator for the PSIP.

23. Project Selection. The process by which a project is included in the PSIP usually begins when ministries submit project proposals to the Planning Institute of Jamaica, which estimates an economic rate of return (if not already done) and ranks the project relative to other projects under Ministry implementation according to a 25 point scale, with varying weights given to a variety of factors, including location, rate of return, employment benefits, and length of implementation. PIOJ then reviews the project and its ranking relative to other projects in the sector, and does any additional analysis required. The project profile is then reviewed by the Pre-selection Committee, chaired by the Prime Minister and including the Director General of the Planning Institute and the Financial Secretary. Most projects executed by public enterprises escape the pre-selection process, however, and since about 40% of the PSIP is executed by the public enterprises, a significant portion of the investment program is not subject to preliminary analysis by PIOJ or to review by the pre-selection committee. The type of analysis done for project justification varies from enterprise to enterprise, depending on the requirements of their individual Boards and/or supervisory ministries. In some cases, investment analysis requires technical expertise in a special field (such as telecommunications or air transport). For that reason it may be unfeasible (and in many cases, unnecessary) for the Planning Institute to assess these projects in the same detail as it does those of the central government. Nevertheless, it is important for the major projects of the public enterprises to be evaluated and ranked relative to all the projects in the investment program. We recommend that the capital projects of the public enterprises over a certain size (say, J$1 million) be reviewed by the Pre-Selection Committee, after being submitted to the PIOJ for analysis.

24. Project Ranking. As described above, the Planning Institute has developed a ranking system which gives different weight to a number of factors (including employment benefits, location, foreign exchange impact) in evaluating a project. Only one of these factors is the economic rate of return, and it accounts for a minority of the total points available. It would be preferable if factors like employment and balance of payments impact were taken into account in the economic analyses through shadow pricing. In practice, many of the line ministries lack capabilities for full scale economic analysis, as do some PIOJ staff; PIOJ has set up training courses in this area for its own staff. It would be useful if line ministry staff were integrated within these courses in the future. We recommend PIOJ should move toward adoption of a system that ranks projects within the same sector according to anticipated economic rate of return only.

25. The ranking of projects across sectors is a difficult task, and it has been attempted only sporadically by the SWG. In practice, as happens in many countries, overall sectoral priorities are established in a qualitative way by the political directorate, and these in turn are reflected in policy guidelines provided to the ministries. Although in theory all projects could be ranked by economic rate of return, in practice the available information and the difficulty of assessing social sector projects and comparing them to revenue earning projects or projects with obvious financial benefits make this methodology impractical. The sectoral

distribution of projects to some extent reflects the political and development priorities of a country. As long as that sectoral distribution is qualitatively coherent with development priorities and financially consistent, as is the case in Jamaica, elaborate methodologies for intersectoral comparisons have relatively little value.

26. PSIP Composition. The strict definition of the public investment program during the last three years has included all expenditures in the Central Government Capital budget (excluding debt amortization and transfers to cover public enterprise debt service) and the gross capital expenditures of the major public enterprises. These capital expenditures include a number of spending items which are not investment projects per se, such as transfers to cover the net expenditures of the Jamaica Tourist Board, or equity contributions to nonconsolidated public enterprises. While it is important to keep track of total Government expenditures in order to arrive at a consistent financing plan, in terms of identifying actual investment expenditures it is useful to separate this type of outlay as done in Table 1.

27. Numbering System. In order to define the PSIP specifically and for convenience in monitoring it, it would be useful to adopt a numbering system, whereby each project in the program is identified by an index number. This would prevent confusion arising from different names for the same project, or projects with components which are listed separately.

28. Macroeconomic Context. The PSIP is prepared annually against the backdrop of the structural adjustment program, set out in the Government's statement on Development Policy. It has so far been substantially consistent with the sectoral priorities set forth in those documents. In this sense, the PSIP has had a macroeconomic context. In addition, implicitly, the PSIP document, which projects expenditures in current prices, reflects assumptions about projected international inflation, domestic inflation, foreign exchange rate position, and GDP growth. At this juncture, the assumptions in regard to inflation are not explictly stated, and as consequence, each ministry makes its own projections. These are amalgamated in the final document. It would be helpful if PIOJ could provide uniform guidelines to ministries preparing these estimates. Similarly, PIOJ should provide a suggested exchange rate, although this has been difficult in the last two years, when the economy was undergoing substantial change.

29. Integration with the Capital Budget. The Standing Working Group produced the first PSIP, with the assistance of consultants, in 1982, as a condition for release of the second tranche of SAL I. Unfortunately, the PSIP was not linked with the capital budget at that time, but was prepared as a separate exercise. As a consequence, the PSIP is not an effective planning document, since it is shortly superseded by a capital budget which affects the ministries' actual allocations for project expenditure. It is essential that the PSIP process be shifted so as to be integrated with the capital budgeting process. Such a shift would require issuance of the budget call far earlier in the year (about August as opposed to January) and a requirement that ministries prepare their budget submissions on a three year basis. The first year of the PSIP, then, would be exactly the same as the capital budget for that fiscal year. This integration has a

disciplining effect, in that the investment program is brought in line with the reality of budget constraints. It also eliminates the extra effort involved in undergoing what are essentially two budgeting processes annually. The mission recommends that this procedure be adopted for the FY86/87 budget, and that roll-over of the public investment program be delayed until then.

30. Implications for Current Expenditures. Although everyone agrees in principle with the need to identify the impact of the investment program on current expenditures, no explicit aggregate analysis of this has been included in any PSIP so far, although some discussion takes place at the pre-selection stage. Particularly during a period when fiscal constraints are severe, it is critical to identify additional requirements on the budget at an early stage and to take these into account in project analysis. Similarly, project counterpart requirements need to be realistically identified; if counterpart funds are subsequently inadequate, a decision to scale down or drop the project should be taken as quickly as possible. In fact, a three-year projection of capital expenditures in incomplete. Ideally, the Government should look at public expenditures on their entirety, and prepare a three-year projection of both current and capital programs with a comprehensive financing plan. With the institution of a performance budgeting system and the integration of accounting systems in support, Jamaica institutions will be a step closer to that goal. A second step which would assist the public sector planning effort would be adoption of a single financial year and uniform accounting practices for all public sector entities. The final goal, over a five to six year period, would be a rolling three year public expenditure plan, the first year of which would constitute the annual public sector budget.

31. "Core" Investment Program. In the last two years, the Government has twice had to make significant cuts in the PSIP to bring total spending in line with reduced financing availabilities. The last PSIP program, prepared in October 1984, included only ongoing projects and new projects for which firm external financing had been identified, in effect constituting a minimum program. Nevertheless, since financing availabilities and timing can change, it is important that planners determine priorities among the projects in the PSIP, so that in the event that reductions are necessary, across the board reductions in budget allocations which affect all projects are not taken, and Government can focus its scarce resources to complete priority projects. While integration of the PSIP with the budget process should help solve this problem by imposing more realistic financing constraints, Ministry of Finance and PIOJ need to have a strategy in place in the event that financing availabilities are reduced.

32. Coordination of the PSIP. As occurs in many developing countries, occasionally public sector projects mainly reflect the development priorities and/or staffing availabilities of international and bilateral agencies. Frequently, such external agencies have contacts within ministries and projects are developed without consultation with central authorities. These projects develop a momentum, and are associated with external financing, and consequently are difficult to dispute when the central authorities finally hear about them. Occasionally, the availability of suppliers' credits on extremely attractive terms may have

influenced the purchase of marginal or unneeded equipment. It is important that available external financing does not drive project decisions, since there are many other costs -- both financial and nonfinancial -- which need to be taken into consideration.

33. Public Sector Investment Program Monitoring. It was recommended that preparation of a quarterly monitoring report on the progress of the public sector investment program would be the responsibility of the Standing Working Group, under the chairmanship of the Financial Secretary. This was never officially confirmed, and the coordination of the preparation of the quarterly monitoring report has become the de facto responsibility of the Planning Institute. The PIOJ does not get involved in direct monitoring itself; rather it coordinates the monitoring done by PAMCO, by the Public Enterprises Unit, MOF, and by the Budget Division. Monitoring of public utilities is also undertaken by the Ministry of Public Utilities and Transport; in addition, each line ministry is responsible for monitoring of public enterprises and statutory bodies under its authority. Until recently, when efforts were made to consolidate some of the forms, line ministries were filling out five to six requests for detailed project and financial information a month. Despite all of these efforts, it is still difficult to get a clear picture of the progress of Government financed projects. While the capital budget appears to be over-monitored by the central authorities, in many cases, it is under-monitored by the implementing agencies themselves. Moreover, the monitoring reports prepared by central authorities are not routinely followed up. In many ministries, management information systems which provide timely data on the progress of important programs or projects don't exist; in others, they are inadequate or useless, because the ministry is so poorly staffed. The most common problem is the lack of a relationship between accounting and financial data on one hand and physical project execution on the other; in many ministries, physical achievement data are not recorded at all. In addition, in an atmosphere of crisis management and frequent policy change, managers themselves have not given priority to the monitoring of performance against existing plans.

34. The preparation of a public investment program is an academic exercise unless timely feedback in a usable form is available to managers on the execution of the projects and is used by them as a management tool. The first emphasis of any monitoring system needs to be in the ministries; project managers and permanent secretaries need to be able to monitor their own programs. In this regard, the ongoing Administrative Reform Programme, supported by the Bank, is focusing on the introduction of a simple performance budgeting system in the minstries, as well as developing appropriate management information systems. In addition, a second technical assistance loan financed by the Bank will provide technical assistance to the Planning Institute and the Ministry of Finance, in the monitoring of the PSIP; this work will be integrated with the Government's Administrative Reform Program.

CHAPTER III - PUBLIC SECTOR INVESTMENT PROGRAM AND FINANCING PLAN, 1985/86-1987/88

35. The 1985/86 - 1987/88 public investment program (see Table 3), amounting to about J$3.3 billion, was developed in the context of a stringent fiscal and monetary adjustment program and is intended to constitute a priority group of investments. It was developed as an operational tool, and as a matter of policy included no new projects unless financing had been firmly identified. Moreover, projected budgetary counterpart outlays have been reduced from originally planned levels for many projects. Projected capital expenditures average about 10.5% of GDP in 1985/86 and 1986/87; a drop to about 9% of GDP in 1987/88 reflects the Government's policy to exclude projects for which external financing is not yet confirmed, rather than an intentional policy to reduce the level of capital spending. Approximately 80% of the projected program is classified as "ongoing"; however, this term is used somewhat loosely to include vaguely defined programs of expenditure as well as projects.

36. Of the $3.3 billion planned for capital expenditures during the next three years, approximately 80% is allocated for fixed capital formation (see Table 6). Another 9% is designated for "software", i.e. research, training, and technical assistance. The remainder reflects transfers to the nonconsolidated public sector and abroad, the purchase of assets, and current expenditures included in the capital budget. The proportion of capital formation in the projected PSIP is higher than the 72% average of the last 3 years, reflecting the leanness of the current program and the reduction of transfer payments in recent years.

37. A development strategy directed at increasing net inflows of foreign exchange, relying on the private sector as the main agent of growth, and limiting the Government's role in the productive sectors of the economy is reflected consistently in the proposed program (see Table 5). The program aims at supporting the private sector without displacing it, and rehabilitating and maintaining existing social and economic infrastructure. Investment in the directly productive sectors is limited to about 20% of the program or about 2% of GDP, compared to an average of about 27% during 1981/82 - 1983/84, or close to 4% of GDP. These expenditures consist primarily of research, supporting infrastructure, seed capital (National Investment Bank of Jamaica) and promotion (tourism). Investment in power, water, transport, and other economic infrastructure is projected to increase to average about 57% of the program, compared to a level of around 45% during the previous three years, although it will stay roughly the same as a proportion of GDP. Expenditures on social sectors, however, are projected to drop substantially in real terms, amounting to only about 12% of the total program, compared to almost 20% in previous years, and falling from about 3% to about 1% of GDP. The main reason for this downward trend is the virtual elimination of housing from the PSIP, as the Government has increased its reliance on the National Housing Trust and private sources for housing financing. Outlays on education are also projected to drop somewhat in real terms.

38. The proposed program implies a rate of public fixed capital formation of about 8% of GDP over the next two years, compared to a level of about 10% during 1981/82-1984/85. This reduced level of public

investment may constrain economic growth and cause further deterioration of existing capital stock. On the micro side, most rehabilitation and deferred maintenance projects, including almost all externally financed projects with counterpart funding requirements, have inadequate allocations in the PSIP. Moreover, even where reasonable levels of funding have been allocated in the past, actual release of the warrants for the budgeted funds has frequently been impeded by unanticipated fiscal constraints. The main road maintenance program is not adequate to prevent further deterioration in the road system; nor will the rate of primary and secondary school rehabilitation prevent further deterioration of the educational plant. Maintenance activities for roads, schools, government buildings, and health facilities have been chronically underfunded from the recurrent budget for the last decade; present deferred maintenance and rehabilitation programs are not sufficient to restore the balance.

39. On the macroeconomic side, the country has experienced average levels of gross domestic investment equivalent to 19% of GDP over the last five years, of which 10% has been public and 9% private. Although the Government's strategy is to nobilize increasing private investment, with the deterioration of the bauxite/alumina industry, it will be difficult for private investment to increase at the rate required to compensate for the decline in public investment, particularly in the context of an austerity program which sharply limits credit available to the private sector. Despite these risks, there is little alternative in view of projected resource constraints.

40. Financing Plan.1/ The financing plan for the projected 1985/86-1987/88 PSIP is based on a decline in the reliance on net external and domestic borrowing and an increase in the contribution of public sector savings (see Table 7). Public sector savings, which covered one-fifth of the capital program in 1984/85, are projected to finance well over two-thirds of the program by the end of the period. The financing plan also includes a targeted reduction in the net indebtedness of the public sector to the domestic banking system, required in order to meet a planned increase in net international reserves. A major reduction in the public sector's liabilities to the domestic banking system already has taken place during 1984/85. (The projections for this component of the financing plan are indicative, pending preparation of a medium-term scenario by the GOJ during negotiations for the next Stand-by Arrangement.) These are ambitious targets, but their accomplishment is essential in view of Jamaica's difficult external debt situation. Achievement will require reduction in the size of the public sector and increases in its efficiency over the period.

Contribution to Public Sector Savings

41. Central Government. The financing plan presented by the Government in late 1984 assumed a strong improvement in the savings performance of the Central Government with current savings moving from an estimated -1.8% of GDP in 1984/85 to 1.3% of GDP by 1987/88 and the major

1/ The financing plan for the PSIP was drawn up in November 1984 using an exchange rate of J$4.5 = US$1.00. By the time the 1985/86 budget was presented in June the exchange rate was J$5.5 = US$1.00. For this reason, the details of the financing plan have changed, although there are no significant changes in the general trends outlined below.

adjustment occuring in 1986/87 (see Table 8). The targeted improvement in Central Government finances was to be achieved primarily through a reduction in expenditures. In 1985/86 current expenditures would be maintained at the estimated 1984/85 level of about 31% of GDP. Over the next two fiscal years current expenditures would be held to slightly above 27% of GDP. On the revenue side, a slight decline in tax revenues' share in GDP is anticipated after 1984/85 because of the end of the gains from collecting tax arrears. In the period 1985/86-1987/88 the bauxite levy is projected to drop to only 6-7% of total revenue (1.5-2.0% of GDP), compared to 15% of revenue and 4.5% of GDP estimated for 84/85. Although the Government has reached agreement with Alcoa to manage its alumina plant on behalf of the Government, (Alcoa previously had announced closure of the plant), no bauxite levy will be received on this production. At this point, the changes are reflected in a worsening of the savings performance of the central Government (current deficits of -3.8% of GDP in 85/86, improving to -1.0% of GDP by 87/88) and a corresponding drop in the anticipated repayments to the domestic banking system. However, it is likely that other adjustments will be made in order that the central Government can achieve a better savings performance and meet its net international reserve targets. In fact, tax increases already have been announced by the Government. These, in addition to other measures announced in the 85/86 budget, are intended to enable the Central Government to achieve near balance on the current account in this fiscal year.

42. Public Enterprises. The financing plan for the PSIP projects an increase in current cash savings of the public enterprises from J$597 million (5.8% of GDP) in FY1985/86 to J$752 million (5.6% of GDP) in FY1987/88. This compares to J$32.6 million in FY1983/84 and J$325.8 million estimated for FY1984/85, 0.5% and 3.7% of GDP, respectively (see Table 9). The Government's targets are ambitious and reflect a strategy to improve the performance of the public enterprises which began under the first Structural Adjustment Loan. Management audits have been carried out on most of the enterprises and, following those recommendations, action programs have been implemented to reduce costs and improve managerial efficiency. A list of the major assumptions behind the projections for individual enterprises appears in Table 9. The exclusion of the National Sugar Company and the newly created Jamaica Sugar Holdings from the group of public enterprises means that the above savings targets are over estimated; these enterprises should be incorporated into the Plan.

43. Contribution of External Financing. Net external financing fo the PSIP drops sharply during the 1985/86-1987/88 period from 16.3% of GDP estimated for 1984/85 to 1.2% of GDP by 1987/88. This trend reflects the assumption that the improved pricing policies of the public enterprises and higher Central Government savings will permit the GOJ to reduce its reliance on external financing. Gross disbursements to the Central Government are projected to drop from an estimated J$2.4 billion in 1984/85 to J$2.0 billion 1985/86 and thereafter to continue decreasing to J$1.1 billion in 1987/88. Concessional lending from bilateral donors accounts for 40% of gross disbursements in 1985/86-1987/88. The plan includes SAL-type financing from the World Bank of roughly US$45 million in both 1985/86 and 1986/87. Suppliers' credits account for only about 12% of total disbursements during the three year period. No new borrowing from the commercial banks is projected after 1984/85. It is assumed that the public sector's outstanding debt with the commercial banks will be

refinanced through 1987/88. Refinancing of official debt through the Paris Club is assumed only for 1985/86. Amortization payments due fall somewhat to slightly above J$750 million in 1986/87-1987/88, compared to J$972 million in 1985/86 and J$1.1 billion in 1984/85. Gross disbursements on external financing are much smaller for the selected public enterprises and relate primarily to financing for their investment program. The net disbursements on external financing for the public enterprises are negative throughout the PSIP period, marginally in 1985/86, but substantially so in 1986/87-1987/88 (-J$142 million and -J$171 million, respectively).

CHAPTER IV: THE SECTORS

A. Productive Sectors

44. The Government's investment strategy in the agriculture, industry, and tourism sectors is directed at providing essential infrastructure and credit, but otherwise relying on the private sector to spearhead investment. The Government is also implementing an aggressive divestment policy which aims at placing enterprises presently run by the Government under private management. As a consequence, the portion of the PSIP allocated to these sectors is relatively small.

1. Agriculture

45. Jamaica's agricultural development strategy is directed at (1) maintaining and increasing production in the traditional crops of sugar and bananas so as to satisfy domestic demand and to meet its quotas in preferred markets; (2) to maintain and expand its lucrative coffee exports, which are exceeded only by sugar in total agricultural foreign exchange earnings; (3) by focusing on large-scale, technology extensive joint venture projects, to rapidly develop nontraditional export crops, such as vegetables and flowers, through the Agro 21 program; 2/; and (4) to increase efficient substitution for food imports and promote food self-sufficiency.

46. During the last two years, the Government has eliminated the subsidy programs and transfers to marketing boards which had previously been included in the capital budget, and is now in the process of divesting publicly owned growing projects, nurseries, etc. The 1985/86-87/88 investment program consists primarily of loans and equity contributions to the Agricultural Credit Bank for four externally-financed projects providing for onlending to the private sector in the farming and agro industrial subsectors. These projects account for almost 40% of total agricultural investment. Another 40% has been allocated for the Japanese-financed Blue Mountain Coffee Project, which involves the development of an additional 3,500 cases of coffee, supporting

2/ The Agro 21 program is a promotional program begun in 1983 (the 21st year of Jamaica's independence) directed at developing large-scale, technology intensive agriculture with the assistance of foreign investment and expertise.

infrastructures and a rural development program, including schools, health facilities, and other social services. The main beneficiaries of the project are small farmers.

47. In its efforts to mobilize private investment in nontraditional crops, the National Investment Bank of Jamaica (NIBJ) made commitments for 14 equity investments in agricultural projects in the 1983/84 capital program. An additional 10 projects are in the planning stage. Among these is a Bank-financed sugar rehabilitation project, which would support the Government's efforts to rationalize and rehabilitate Government-owned field and factory operations as well as to develop alternative economic, employment-generating activities in areas where sugar factories have been closed.

48. While the choice of agricultural projects is consistent with the Government's strategy in the sector, it does not appear to be based on any medium term development plan. Such a plan is presently under preparation, and is a necessary foundation for the formulation of appropriate Government policies and programs.

49. Industry. The main vehicle for Government support to this sector is the National Development Bank, a Government-owned second-tier institution which provides medium- and long-term loans through commecial banks. These loans have been denominated in J$, but include access to foreign exchange, which has been provided by the World Bank and the CDB. To accompany NDB's project assistance is the Rehabilitation Fund, supported by the IDB, which provides loans in foreign exchange (repayable in J$) for permanent working capital. The PSIP provides for the completion of the IDB-financed cement plant expansion project, which is directed at improving the efficiency of the Government-owned facility as well as substituting local production for imported materials. In addition, the PSIP provides for the completion of the Bank-financed Kingston Free Zone Project, which finances the construction of factory space and facilities in the port free zone area. Demand for this space has been very high, creating over 3,000 jobs by the end of 1984, and, if sustained, may justify the launching of a second free zone area in Montego Bay or the expansion of the KFZ in the next four years. The Industrial Development Corporation has been provided with an allocation of about $10 million a year for other factory buildings, which are aimed at providing space for local or foreign manufacturers who do not wish to be restricted to selling products solely for the export markets.

50. In tourism, the size of the total capital allocation (J$180 million) is somewhat misleading, as it consists primarily of capital transfers to fund Government agencies operating in the sector. The bulk of the resources go to the Tourist Board, which runs an office in New York and funds promotional campaigns in Jamaica's major tourism markets. A recent management audit of the Ministry of Tourism suggested that the Tourist Board be reintegrated with the Ministry and that a number of small Government-owned operations (Jamaica Reservations, Ltd., St. Thomas-Bath, Milk River Bath, Jamaica Attractions Development Company) be divested or closed; no allocation for these latter agencies has been included in the Program. While the reintegration of the Tourist Board into the Ministry might be self-defeating, particularly if done precipitiously, by

undermining the present operation, a careful review of Tourist Board operations and closer supervision on the part of the Ministry might wish to explore whether hotels benefitting from Tourist Board activities would be willing to make contributions towards its support. A Tourist Board managed and funded by the tourism industry might be an ultimate goal. Other minor investments proposed in the sector includes refurbishing of Government-owned hotels by National Hotels and Properties (to make them sufficiently attrative for long-term leasing) and upgrading of tourist areas and public facilities by the Urban Development Corporation (UDC).

B. Economic Infrastructure

51. Jamaica possess well-developed transport and communication systems, and access to electricity and potable water is relatively high. Consequently, the central focus of the investment strategy is on maintenance and mild upgrading of existing facilities, rather than creation of new capacity. The problem of maintenance, discussed above, is the most critical issue facing these sectors.

1. Transportation

52. Air. Jamaica has two international airports, at Kingston and Montego Bay, as well as a national airlines, Air Jamaica. The airports are managed by the Airports Authority, a statutory body, which has shown improved financial performance in the last year as a consequence of an increase in landing fees.

53. The PSIP presently includes only one major on-going project for AA, the improvement of navigational lighting at Montego Bay (Sangster) costing J$29.4 million. No new investments are included; however, AA has recently been discussing with CIDA the possibility of receiving a grant for about J$18.0 million for the improvement of runways, taxiways, aprons and equipment. Most of these improvements are necessary and the grant financing with little local counterpart obligation makes this proposed investment attractive.

54. Air Jamaica. Since 1978, Air Jamaica (AJ) has experienced substantial operating losses (J$10 - 33 million annually) and net losses (after interest and depreciation) have been even greater particularly with the devaluation of the Jamaican dollar. However, recently, the picture for AJ has improved and in the quarter ending in September 1984, a net profit was reported. A profit (after interest expenses, but before depreciation) of J$11 million is estimated for the year as a whole. This turn-around has resulted from (1) Pan Am's withdrawal from the market (2) the collapse of Air Florida (3) the ban of Air Peru flights to the USand (4) the normal traffic peaking pattern during the quarter. The acquisition of two A-300s and the leasing of another has had a favourable impact on operations.

55. The four-year investment program of AJ amounts to J$20.1 million for the technical stores building (J$2.6 m), cargo building (J$1.0 m) and aircraft spares (J$16.5 m). The investments in buildings are ongoing and the spare parts are critical to AJ operations.

56. Although no other projects are presently included in the PSIP, with the recent rise in traffic, some consideration is being given to the lease-purchase of another airbus. Management believes that there are economies of scale since a minimal level of facilities are needed at each airport served by AJ. While this may be so, fixed operating costs are only about 25% of total operating and non-operating costs (including interest and depreciation). Also, because of low fares which do not reflect full costs (particularly depreciation which is a foreign exchange cost), domestic demand may be overstated in economic terms. More importantly, since landing rights are reciprocal, the entrance of another US competitor is uncertain. Also traffic demand is strongly affected by the US economic conditions which recently have been favourable. Thus, while a short-term lease of an aircraft may be viable, caution with a long-term lease - purchase arrangement is warranted.

2. Ports and Shipping

57. Jamaica Merchant Marine, the Government-owned shipping company, presently owns four vessels: a bulk carrier for bauxite (41,000 DWT), a small bulk carrier for grains (5,100 DWT), a banana reefer with capacity to carry containers, and a small roll-on roll-off vessel. After many years of profitable operations, JMM experienced its first loss of J$3.3 million in 1983. This was caused mainly by a shortfall in banana and general cargo revenues and, by the devaluation of the J dollar. During 1984, the banana trade has continued to deteriorate and there has been further pressure on the currency. JMM has stopped service with its banana reefer and started spot chartering a vessel for its trade in the West India Transatlantic Conference. This action has been profitable given the present low spot charter rates and should help JMM return to a profit position.

58. The PSIP includes an investment of J$94.5 million in 1986/87 for the purchase of two reefer/container vessels. Three large banana production projects are now underway which are expected to help produce bananas for an assured British market of 125,000 tons. Discussions with JMM officials indicated that the vessel would cost about US$15.0 million (each) and that a long-term leasing-buy-back terms could be arranged by a British Bank without a Government backed guarantee. Since these vessels are highly specialized and costly, the banana production and shipping trade requires careful analysis. A Bank-financed consultant was recently hired under Loan 2394-JM to analyze the banana shipping trade and his report concluded that present tonnage was not sufficient to justify the use of dedicated vessels and bananas should continue to be shipped under contract of affreightment and/or conference vessles in containers. When there is sufficient export tonnage, the industry should charter appropriate reefer vessels. Since sufficient production is still uncertain and will at best take several years to develop, the purchase of two reefer/container vessels could be postponed. Also, before making such an investment, a long-term contract would be needed with the banana industry, which may be difficult to obtain.

59. JMM is also exploring the possibility of acquiring a second hand bulk vessel. This vessel could serve the imported wheat demand of the flour mill located in Kingston which is estimated at 180,000 tons per year. The proposed vessel of 12 - 15,000 DWT would be larger than the

existing bulk grain carrier of 5,100 DWT. While it is presently not included in the PSIP, such an investment appears promising, particularly if a long-term contract could be arranged with the flour mill.

60. Ports. The Port Authority is responsible for the management of all public ports in Jamaica. Most traffic is handled at the Kingston Ports which has an outstanding natural harbour. Port Authority of Jamaica has been a profitable operation, and early entrance into the container business has proved to be a wise decision. About two-thirds of the containers handled are trans-shipped to neighbouring countries. With the development of other container ports in the region (Panama and Santa Domingo) the Kingston port will experience additional competition. The port's lower infrastructure cost (because of earlier construction) should help in the competition for business. For the medium term, port facilities are sufficient to meet expected demand.

61. The PSIP includes an investment allocation of about J$30 million for port development. The major item is the Kingston Dry Dock Upgrading (J$10.7m). Another interesting investment possibility was identified in a recent study by Shipdeco of Norway, which recommended that a new shipyard be established to serve the domestic and regional small fleet market on a phased basis with a joint venture foreign partner. The full project is estimated to cost about US$5.3 million, with the first two phases involving US$1.4 million. If investment restrictions are tight, this project could be spread-out over several years.

3. Railway

62. Jamaica Railway Corporation. Jamaica Railway Corporation provides three main types of services--namely, cargo movements related to the bauxite mining industry, general cargo movement and passenger services. In the past, bauxite and alumina shipments have been increasing while general cargo, such as bananas, sugar, sugar-cane and citrus, and passenger traffic have sharply declined. Recently with the decline of the bauxite/alumina industry, bauxite traffic has dropped and the financial losses of JRC have been even greater.

63. Recently, JRC procured 12 new locomotives, 6 of which have been delivered in 1984 and 6 more are to be delivered in 1985. In addition to the locomotives, the PSIP includes an investment allocation of J$49.7 million. Most of the proposed investment is for track rehabilitation and modernization (J$34.7 million). The declining trend of general cargo and passenger traffic and the short-haul nature of the railways raised the question of the economic viability of providing services for general cargo and passenger services. A recent analysis carried out by a Bank-financed consultant in 1983 indicated that railway costs (assuming efficient operation) were substantially below road truck and bus costs. However, this analysis suffered from serious defects since it was made on a "running cost" basis. No costs were included for additional handling, transfer, time, convenience and security costs involved with the use of the railroad. For instance, cargos often have to be brought to the railroad by trucks loaded and re-loaded to the train and vice-a-versa at the destination. In addition, the analysis did not take into proper account the high fixed overhead costs of the railroad and the full capital costs.

World experience has clearly indicated that rail transportation is best suited for high volume bulk traffic (i.e. bauxite) and high volume passenger traffic. In light of present circumstances, the Government may wish to consider the conversion of part of the rail system to feeder roads, which might provide some employment opportunities for existing railroad personnel.

64. Roads. Jamaica has a well-developed and comprehensive road network. As a consequence, over the last three years, resources have not been allocated for new construction, but rather for the rehabilitation and maintenance of existing facilities. Most of the program is ongoing, with the exception of a CIDA-financed bridges project and an IDB-financed rural road project. The total allocation for roads is close to J$300 million over the 3-year period.

65. With regard to main roads, the Government's stated objectives, in view of existing fiscal constraints, are to provide the minimum resources necessary to avoid further serious deterioration of the 3,000 mile main road network. Such a program would require about 130-150 miles of reseal/overlay per year. The present program provides for only about half that rate, and total committed external financing for the program cannot be drawn down; accordingly, about US$7.0 million in funding will need to be cancelled.

66. Approximately, J$135 million has been provided for the rural road program, which is directed at upgrading feeder roads to relieve bottlenecks to export agriculture production. The pace of disbursement estimated in the PSIP substantially exceeds that programmed in project documents, and may be difficult to attain. More specific linkages between the rural road program and the Agro 21 program also need to be developed, if the maximum benefit for export agriculture is to be achieved. Another project aimed at the rural areas which includes a transport component to Comprehensive Rural Town Development (J$115 million), financed by the IDB and implemented by the Urban Development Corporation. The project would improve a wide range of economic infrastructure and social amenities in rural Jamaica where services are, in many cases, below what is available in other areas of the country. For example, most households in rural Jamaica do not yet have domestic water supply.

67. The PSIP also contains approximately J$82.9 million for the urban transport sector. The Bank-financed urban transport project accounts for approximately 90% of this amount. The total funding over the three year period is adequate; however, its incremental yearly allotment will adversely affect project implementation and effectiveness. It is imperative that more funds be allocated in the first year, with a corresponding reduction in the last year to effect rational project execution. A related project which addresses the deterioration in urban services (markets, transport) in the Kingston metropolitan area is West Kingston Market Development (J$77 million), financed by IDB. The deterioration is a result of insufficient maintenance in the past, rapid growth in the population in the Kingston area, and the inadequate management of local authorities. The project, which is being implemented by the Urban Development Corporation, will upgrade a traditional market area which is suffering from physical deterioration, congestion of both

vehicle and pedestrian traffic, and poor sanitation. It is hoped that the improved, more efficient facilities will also help expand job opportunities in an area with a serious problem of hard-core unemployment. There are two promising additional projects, which funds permitting could receive attention during the period 1985/86 - 1987/88:

(1) Construction of causeway and bridge to provide access across Hunts Bay to Potomac;

(2) Upgrading Washington Boulevard.

An additional transport project which does not appear directly in the investment program but has the potential for requiring financing on a year-to-year basis with budgetary funds is the Eastern Foreshore Road. This appears to be of low priority and should be subjected to a rigorous economic analysis before proceeding further.

68. Energy. The energy sector in Jamaica is dominated by three entities; the Ministry of Mining and Energy, the Petroleum Corporation of Jamaica (PCJ), and the Jamaica Public Service Company (JPS). In the past, the sector has been charactized by poor coordination among the three and considerable overlap. The Government during the past year has been attempting to strengthen the Ministry and to improve coordination in the sector. The basic strategy in the sector is straightforward; to minimize the use of imported fuels by the efficient operation of existing facilities, by the introduction of energy conservation techniques and by the development of alternative sources of energy, albeit the natural resources of the island present only limited opportunities for the latter.

69. Ministry of Mining and Energy. The Energy Division of the Ministry of Mining and Energy was established in 1977 and is generally responsible for formulating and overseeing implementation of a National Energy Policy and Plan for Jamaica. In recent years it also has become involved in development work in the areas of conservation and alternative energy.

A large number of projects and different types of schemes strained the Energy Division's execution and supervisory capacity, and more important, diverted attention from its more critical duties of energy planning and policy making. In addition, time and resources were devoted to several non-priority projects which had inadequate returns (fuel ethanol production, wind mapping, and wood gasification) or were more appropriate for the private sector (making solar water heaters commercial).

70. The proposed energy investment program for the Ministry of Mining and Energy appears more focused than in previous years. However, some projects are pending final negotiations with OLADE and the Italian Government. Also, some alternative energy projects, such as wind mapping, may be consolidated under the USAID project. It is important that only priority projects with demonstrated benefits are included. Total estimated investment expenditures for the three year period are nearly J$53 million. The projects include the ongoing USAID-financed energy conservation and alternative energy usage (J$25 million), scheduled to be completed in 1987; continuation of mini-hydro development (J$23 million) supported by CIDA;

and a feasbility study for the Back Rio Grande hydro project (J$5 million), to be funded by the Italians.

71. Petroleum Corporation of Jamaica (PCJ). The Petroleum Corporation of Jamaica was established by the Petroleum Act, to promote the national development of the petroleum resources in Jamaica and to ensure that the country receives the greatest benefits obtainable from the exploitation of its petroleum resources. Petrojam Ltd., which was formed for the purpose of operating the Kingston oil refinery (purchased from Esso by the Government of Jamaica in 1982), is a wholely owned subsidiary of PCJ. During the period FY81/82-84/85 the investment program of PCJ totaled about J$70 million. The main expenditures were related to the purchase of the refinery in 1982 (J$38 million) and an onshore and offshore petroleum exploration program which up to the present has not resulted in commercially exploitable discoveries. In addition, PCJ has been the lead agency on the proposed project to generate power using peat as a fuel source. During this period there were expenditures on reconnaissance work, testing, and prefeasibility studies. In 1984/85 J$18 million is planned to be spent on new corporate headquarters.

72. The main objectives of PCJ's proposed capital program are to diversify energy sources away from petroleum, through investments in hydropower and a generating facility based on peat; and increasing the energy efficiency of the refinery. The estimated size of the program over the three year period is nearly J$100 million. Outlays for 22 MW of additional hydropower capacity development total J$23 million during 1985/86-1988/87, including an extension of one scheme, construction of a complex involving two rivers, and rehabilitation of one facility. The projects are well advanced with tender documents having been submitted for two projects and an agreement signed for the remaining one. External assistance is being provided by Germany and CIDA. Also included in the program is the first stage of implementation of the project to construct a peat-fired generating facility (with net output of approximately 60MW). Approximately J$50 million is included in the PSIP during FY86/87-87/88, representing only a small portion of the total project cost. It does not seem advisable to include the peat project in the PSIP as the government has not yet defined its investment strategy in the power sector pending the review of the draft Least Cost Expansion Program, prepared by the Montreal Engineering Co. for the Public Service Co.. The investment program also includes a project (J$26.2 million) directed at increasing the energy efficiency of the refinery. As recommended in the Energy Assessment Study, no investments should be made in the refinery until the viability of its operations is clearly established.

73. Jamaica Public Service Company (JPS). JPS is a government-owned power utility charged with exclusive responsibility for the generation, transmission and distribution of electric energy for public consumption in Jamaica. During the late 1970s and early 1980s electricity services were highly unreliable because of load shedding caused by the unavailability of poorly maintained generating units although installed generating capacity (largely petroleum based) was more than sufficient to meet system peak demand. In addition, efficiency was low, which led to high fuel costs for the company. The main objectives for the utility during the period FY81/82-84/85 were rehabilitation of existing generating capacity and

improvements in operating and financial performance in order to increase thermal efficiency. The investment program of the utility averaged J$50 million annually during 1981-83. About 30% of the program went for rehabilitation of steam units and the overhaul of gas turbines. During the early part of the period there were expenditures to complete a project (partially financed by IBRD) to expand transmission and distribution systems in urban centers. The project also provided technical assistance for the improvement of operating and maintenance practices. In 1984, capital expenditures by JPS rose to J$283 million, primarily because of the impact of the devaluation of the J$ on the local cost of large foreign equipment purchases denominated in local currency. The major outlay in 1984 was the first payments amounting to J$102 million for 2 new 20 MW each slow speed diesel generators. Other projects included expansion of the existing supervisory control and automatic data acquisition system (SCADA) in order to monitor and control better generation capacity and the transmission network; continuation of the rehabilitation program; and the addition/rehabilitation of distribution lines.

74. The key objectives for the power company over the next three years are: (1) installation of slow speed generators by September-October 1985 in order to improve the system's thermal efficiency thereby lowering fuel costs; (2) further improvements in operating procedures and the efficiency of system use and planning; and (3) upgrading transmission and distribution lines. In total, J$419 million is planned in capital expenditures over the period. About a quarter of the program is accounted for by the acquisition and installation of the slow speed diesels and slightly 20% each for further work on the SCADA system and distribution works.

3. Communications Sector

75. Radio and Television. The Jamaica Broadcasting Company operates two national radio stations (one AM and one FM stereo), three regional radio stations, and a television station. In recent years financial and operating performance has been poor. Obsolescent, unreliable equipment and insufficient transmitting equipment have made it difficult for the Company to compete against other facilities for audience and thus, advertising revenue. In order to improve performance, JBC is implementing a major investment program with the bulk of the expenditures taking place in 1984 (J$32.4 million). For television (J$11.5 million), the major investments were color conversion, modernization and upgrading of studio and outside broadcasting equipment, and the expansion of transmission facilities. Most of the external financing is being covered by a French credit line, onlent by the Government. For radio, the major component of capital expenditures is the expansion of AM coverage (J$11.2 million) and the modernization of studio production and outside broadcast facilities (J$9.7 million). The capital program appears to be proceeding on schedule. Much of the equipment already has arrived and is being installed. On the basis of this program, JBC is projecting a strong improvement in their financial performance over the next three years. Aside from the completion of the investments in television facilities in 1985 (J$5 million) no other capital expenditures are included for JBC in the FY85/86-87/88 PSIP.

76. Jamaica International Telecommunications, Ltd. (JAMINTEL) is 51% owned by the Government and provides a range of international telecommunications services. Over the period FY81/82-84/85 investment expenditures totaled J$53 million with most of the outlays occurring during the latter two years. Major projects included modification and expansion of Intelsat facilities used in Jamaica and installation of a new international telephone exchange and telegraph switching system. JAMINTEL has been in a strong financial position, enabling the company to fund investments from internally generated sources or external credit lines.

77. The objectives of the capital program in telecommunications are twofold: (i) to replace, upgrade, or add equipment in order to maintain existing levels of service and to meet additional customer requirements and (ii) to improve the efficiency of handling traffic. The two major projects are the upgrading and modernization of equipment in the satellite earth station, in addition to the installation of a secured digital microwave backhaul link, (J$35 million) and replacement of the Jamaica share of the submarine cable system between the Caribbean Basin and the United States (J$37 million). Smaller investments planned are purchase of telecommunications equipment, installation of new telex and telegraph switching systems, and construction of an administration building. In total the JAMINTEL investment program for the three fiscal years comes to J$92 million, with annual expenditures increasing over the period. Both major projects have been well prepared, with the assistance of INTELSAT in the case of the satellite investments, and the American Telephone and Telegraph Co. (AT&T) and other regional participants for the cable link. JAMINTEL is expected to implement the proposed capital program without serious difficulties. Financing will be provided by internally generated resources, and suppliers' credits and external credit facilities, which are currently being negotiated by the company.

78. Jamaica Telephone Co. The company operates under the All-Island Telephone License granted for 25 years from January 1, 1976. The License provides the Minister of Public Utilities with the power and authority to require observance and performance by the company of its obligations under the License, and to regulate the rates charged by the company. The Government of Jamaica holds approximately 90% of the ordinary stock units of the company. The annual capital expenditure program of the JTC was about J$30 million during the period 81/82-83/84 before rising to nearly J$130 million in 84/85, largely because of the impact of the devaluation of the J$ on the foreign exchange component of the investment program which is about 55% of the total (at an exchange rate of J$4.0 = US$1.00). The Telephone Company's capital development program (which has been done on a 5-year "rolling" basis since 1982) during this period was designed to achieve increased capacity and reliability of the telephone and telex network and to attain better levels of efficiency in its customer services activities. Major projects included installation of new lines and stand-by generators; addition and replacement of switching facilities, including digital technology, in order to increase capacity; expansion of the rural telephone network; increased telex facilities; and investment in transmission facilities in order to accommodate growth in the number of circuits.

79. The Telephone Company's objectives for the three year period are: (i) to increase the share of demand for telephone services met from an estimated 62% currently to 73% by 1988; (ii) to extend telephone service to more rural areas; (iii) to improve reliability; and (iv) to ease the serious problem of congestion. In formulating the investment program the Company also has aimed to preserve its financial viability, to strike a reasonable balance between maintenance expenditures and investments to expand service and to assure that the scope of work is within the capabilities of their manpower resources. The projects included for the period 1985-87 total J$143 million, peaking at nearly J$60 million in 1985. This program represents a considerable reduction from the original formulation of the 1984-1988, 5-year plan (J$413.5 million at an exchange rate of J$3.15 = US$1.00) necessary because of a shortfall in funds to finance the investments, the depreciation of the J$, and the Government's desire to reduce the level of rate increases needed by the Company. In the revised version, which is reflected in the PSIP, the Company has maintained ongoing projects and projects for which commitments already had been made, in addition to those which had maintenance or operational implications or were to generate high revenue. The major reductions made to the original plan were a 50% cut in expenditures on motor vehicles, a downscaling of the goal of demand satisfied for telephone service from 78% by 1988 to 73%, the postponement of the expansion of rural service and data communication, and delay in upgrading equipment in Kingston to ease congestion. The projects which remain in the program include: upgrading transmission and switching facilities to digital technology, expansion of telex services, increasing network capacity, and maintenance.

80. The investment analysis done by the Telephone Co. on the original program showed acceptable rates of return (there is a target rate of return on equity of 15%) as long as there was a rate increase, but indicated that there would be negative cash flow for the first couple of years. Effective July 1, 1984, rates on international calls were doubled and rates on domestic calls were increased by 50%. In addition, a greater share of the revenue from overseas calls will go to the Telephone Co. (JAMINTEL receives the remaining portion). Although no detailed analysis of the revised investment program is available, the July rate increase, plus the reductions and postponement in some projects, would result in less strain on the Telephone Company's financial performance. According to the latest financial projections, internally generated funds are sufficient to cover projected capital expenditures and amortization payments, before considering the amounts expected from external and domestic loans.

4. Water Supply

81. In general, most of the investment in the water sector is included in the capital expenditures of the National Water Commission (NWC), with the exception of irrigation, some outlays by local governments, and the ongoing Blue Mountain Water supply project, which is being executed by Caribbean Engineering, a subsidiary of the National Investment Bank of Jamaica (NIBJ). The capital program of the NWC was about J$30 million in both 81/82 and 82/83, dropped to J$25 million in 83/84 and rose to J$46 million in 84/85 (reflecting primarily the impact of the devaluation of the J$ on proceeds from external loans). The major projects implemented by the NWC during the past four years were: (1) Mandeville Water Supply, financed

by the Inter-American Development Bank, which aimed to increase source capacity in that area of the country; (2) Kingston Sewerage and Water, partially financed by the World Bank, which was to improve the water supply and sewerage system in Kingston, and (3) Castleton Water Supply, financed by the Caribbean Development Bank, which consisted primarily of construction of a pipeline to provide additional water resources to supplement what is available from the Hermitage Dam. Because of poor financial performance, particularly in 82/83 and 83/84, most capital projects have been funded through either loans from multilateral donors or transfers from the Central Government. The lack of adequate internally generated funds coupled with poor management of the NWC also has prevented the carrying out of proper preventive maintenance. As a result of this and the island's susceptibility to periodic drought, although water service coverage is high, reliability of service is very uneven and water supplies are inadequate, particularly in the Kingston area. In addition, the provision of infrastructure and services for domestic and industrial wastes water collection lags behind the development of water supply.

82. The major project in the sector not being implemented by the NWC is the Blue Mountain project at a total estimated cost of US$20 million, with most spending occurring during 83/84 and 84/85. The project includes construction of water intake works and a 17-mile pipeline whereby 15.0 million I. gallons per day of water will be added to existing supplies for the Kingston metropolitan area. Although the project is being executed by Caribbean Engineering Co., a subsidiary of NIBJ, once construction is completed it is the Government's intention that the NWC will operate and maintain the facilities and be responsible for repaying funds borrowed for the project.

83. The NWC investment program reflects the Government's major objectives in the sector which are to improve the efficiency and effectiveness of the operations of the NWC; to consolidate the now independent local parish council water operations under NWC in a manner which protects the operational and financial integrity of the NWC; and to lower the annual transfer from the central government covering rural water supply by improving the financial and technical viability of those systems. The NWC program is comprised primarily of projects which have been under consideration for a substantial period of time, but were delayed because of financial constraints, rehabilitation expenditures, water supply improvements and investments associated with the proposed takeover of parish council operations. Capital expenditures total J$136.5 million over the three year period. A project to complete the source additions and install new transmission mains in the Mandeville area accounts for about a fifth of the program. The ongoing component of the project has been supported by IDB and NWC plans to apply to IDB for financing of transmission investments. The World Bank financed Technical Assistance and Rehabilitation Project makes up roughly a third of the program. The project includes the provision of management and other technical assistance to help strengthen NWC's overall managerial capabilities; the installation of pipes in order to eliminate the bottlenecks in the Kingston area water distribution system; and the rehabilitation of priority water supply and sewerage facilities.

84. Projects proposed to be funded under the Italian/GOJ Cooperation Program account for slightly under 10% of the program. The main activities to be financed are water supply improvements and pumping rehabilitation. Depending on the ultimate size of the Italian/GOJ Cooperation Program and the share allocated to the NWC, additional projects in those two areas, in addition to major sewerage investments in the Kingston area, have been identified on a preliminary basis by Italian engineers, working with NWC staff. The program also includes about 10% in rehabilitation and maintenance expenditures for the Kingston and rural systems to be funded from NWC's internally generated depreciation allowance. It is critical that NWC's financial position remains strong enough to generate those funds so that essential maintenance is carried out. A project to undertake the investments required as the phased takeover of rural operations proceeds - mainly expansion of equipment and system upgrading and improvements - accounts for about 8% of the total capital program. A study on the implication of the takeover of parish council operations by NWC and recommendations on the scheduling of the process was due to be completed by the end of 1984. Given the improved management capabilities which are resulting from technical assistance, NWC is not expected to experience serious difficulties in implementing the capital program.

C. Social Infrastructure

5. Population and Health Sector

85. Jamaica's population indicators are favorable by Latin American and Caribbean standards. After a long period of decline the total fertility rate was only 3.8 and the crude birth rate 29 per thousand in 1981. The rate of natural increase of population was 2.2% in 1982. The population growth rate, however, is still too high in the context of the country's limited resources and development potential. Health indicators already resemble those of industrialized countries.

86. These major improvements in population status have been obtained through a major expansion of contraceptive distribution and emigration; and those in health care through the country-wide development of water, sanitation and health services. In the last five years, however, it became apparent that sector development had been carried out without due regard to efficiency (as evidenced, for example, by the fact that there is one hospital bed per 330 population, the same ratio as in England and clearly in excess of requirements) and costs (the public health share of Central Government's budgets reached 14% in the late 1970s or almost three times the British level) in circumstances of increasing fiscal constraints, forcing cost effectiveness to the forefront of development policy options for the remainder of this century.

87. Population and health sector objectives have been set by Government according to the above main priorities and constraints. They are: (a) to further reduce the birth rate to keep population size below 3 million by the year 2000; and (b) to improve the efficiency of health services in order to maintain universal coverage of acceptable quality within the limits set by present sector budget allocations.

88. The population and health care infrastructure has been expanded intermittently since 1950. Family planning services have been vigorously expanded since the late 1960s, first under an autonomous Family Planning Board (NFPB) and more recently jointly with the Ministry of Health (MOH). Large public investments in hospitals were made in the early 1950s, 1960s and 1970s and in health centers beginning in the 1960s. The capital stock in the health sector net of depreciaton was estimated at US$283 million (J$509 million) in 1980 (Annex 1) for a hefty US$140 per capita. Beginning in 1975 new investments were reduced in total size and shifted to: (a) support capacity expansion in the priority areas of family planning (maternity ward expansion at Victoria Jubilee Hospital), emergency care (Kingston Public Hospital), and primary health care (64 health centers in the Cornwall Health Area); and (b) consolidate services and improve their performance.

89. Ongoing investments in the sector at J$66.5 million represent 57% of the total J$117 million in planned investments for the period 1985/1988. About US$5 million equivalent will be invested this year, and US$6 million, US$11 million and US$13 million in each of the next three years, respectively. In absolute terms these investment levels would be in line with moneys actually spent in recent years when account is taken of inflation. Roughly one third of the volume of planned investments would be spent on software and two-thirds in hardware. The latter would represent less than 5% of the net value of sector assets in peak year 1987/1988 and only about 7% of total planned public sector investments during the three-year period.

90. Investments are planned to be made mainly through five channels, as follows: the proposed IBRD-financed Population and Health Project (tentatively estimated at US$12 million, of which roughly US$8 million would be spent by 1988) would expand contraceptive use country-wide and improve health sector management through the consolidation of the decentralized health services in the Cornwall and Southeast health regions, the improved performance of MOH headquarters units, the transfer of resources from hospitals to free-standing ambulatory facilities and the introduction of a management information system. The USAID-assisted Population Policy Support (US$4 million) and the Health Management Improvement (US$7 million) projects would increase contraceptive supplies, and improve MOH communications, transportation facilities, child health referral, training, supplies, maintenance, and planning and evaluation mechanisms; suppliers credits (US$5 million) would be used for increasing child referral service, equipment and maintenance; MOH would contribute separately US$3 million for minor hospital upgrading and rehabilitation works (including importantly the consolidation of under-utilized facilities) and the Dutch Government US$1 million for a comprehensive health center.

91. The above projects account for more than 90% of total proposed investments. They should be considered of high priority because of their strong links with the sector objectives of improved resource utilization and performance. Because of this and in view of their modest size in terms of overall planned public sector investments and health/population sector infrastructure they should not be reduced even under the worst case development scenarios.

92. MOH's current expenditure budgets remained relatively stable in real terms from 1982 through 1985 and translate into the equivalent of US$24 per capita in 1984/1985 or about 7% of the Central Government's budget for this year. This is an adequate overall allocation for a country of Jamaica's economic and social conditions, especially when considering that MOH current expenditures are believed to represent only 60% of total population and health sector expenditures. Budget allocations and expenditures have a much more adequate profile than for most Latin American countries, with a relatively low share (55%) for staff remuneration and relatively high shares for drugs and supplies (17%); travel and subsistence, utilities and maintenance (3% each). Available data do not permit the evaluation of resources' utilization and performance, but overall financing levels seem adequate for sector purposes in the context of MOH's plans for increased rationalization of resource use. Primary health care (Annex 5) absorbed about J$47 million in 1983/84 and is estimated to cost J$55 million in 1984/1985, or one-fourth of the total in both years. This production should increase as a result of cost-effectiveness efforts which empahsize the use of lower level ambulatory facilities. Current expenditures, therefore, would not be an investment constraint if they were maintained at present lending but improved utilization of existing infrastructure and would strengthen lower-unit-cost basic health care services.

6. Education Sector

93. The Government's education development strategy focuses on the development of basic education (grades 1-9) and manpower training. It correctly emphasizes rehabilitation and upgrading of primary and basic education facilities, which are poorly kept and in a sadly dilapidated condition. It also correctly focuses on skill formation and mid-level technician training, in view of the need to upgrade and expand existing training infrastructure.

94. The PSIP allocates a total investment of J$290 million, education and training, or about 10% of the entire program. Of this amount, primary education accounts for 40% of expenditures, with most of the remainder allocated for skills development. The total is understated, however, as a number of ongoing projects have been represented with lower investment figures than those agreed with the financing agencies, such as the IDB-financed primary education project; the USAID/WFP projects, and a number of smaller projects financed by IDB, OAS, EEC and bilateral donors. The PSIP appears to underestimate required counterpart funds by about J$100 million. This underestimation appears to reflect anticipated budgetary constraints and delays in project implementation.

95. One of the fundamental issues in the education sector is the low quality and efficiency of basic education, due to such factors as the still incomplete curriculum for grades 7-9 in all age schools, the ineffective in-service training of teachers, and inadequate physical facilities and equipment. Another concern is the existence of a multiplicity of secondary level institutions and examinations, resulting is variable quality and wastage of financial resources, and obliging students to make decisions concerning their future career at too early an age. Finally, improvements in the efficiency of the system would allow the allocation of increased

financial resources to basic education, presumably under-financed in comparison to other levels.

96. The Government has made substantial efforts to upgrade vocational and technical training, which is offered in a wide array of institutions, including Ministry of Youth and Community Development (training in traditional trades); Ministry of Education ("formal" vocational training through the secondary school structure and the College of Arts, Science and Technology); Ministry of Health (nurses, midwives, and other medical practitioners), and the Human Employment and Resource Training Program (HEART) launched in 1982. HEART, which combines training in both the public and private sector, is financed through budget allocations and an earmarked payroll tax, and provides training through a school leavers, building skills, agricultural skills, garment skills, and craft skills training programs.

97. While the number of institutions involved in training is illustrative of the importance attached to it by Government, coordination among these institutions is weak. Moreover, the operating costs of some ongoing projects, particularly under HEART, appear quite high. The annual operational costs of the school leavers program (a crash training program in practical discipline for secondary school graduates and for those who did not complete the course) are J$2,000 per individual; in the academies' residential training programs, J$5,000 per student (and this is probably underestimated) and in technical high schools, J$5,716 per student. A careful evaluation of the recurrent costs and relative benefits of different training programs is called for.

STATISTICAL APPENDIX

Table 1

JAMAICA - ECONOMIC CLASSIFICATION OF THE PUBLIC SECTOR INVESTMENT PROGRAM, 1980/81 - 1983/84

(in millions of J$)

	1980/81		1981/82		1982/83		1983/84	
	Amount	%	Amount	%	Amount	%	Amount	%
Capital Formation	320.2	65.5	480.9	65.7	584.9	76.0	532.1	72.2
Research and Studies	n.a	n.a.	5.9	0.8	10.3	1.3	12.0	1.6
Training	n.a.	n.a.	9.4	1.3	7.7	1.0	21.4	2.9
Technical Assistance	n.a.	n.a.	2.3	0.3	10.0	1.3	44.6	6.1
Transfers	150.9	30.9	160.1	21.8	115.3	15.0	96.2	13.1
Public	n.a.	n.a.	(159.1)	(21.7)	(114.0)	(14.8)	(86.5)	(11.8)
International	n.a.	n.a.	(1.0)	(0.1)	(1.3)	(0.2)	(9.7)	(1.3)
Credit	n.a.	n.a.	8.9	1.2	5.0	0.7	3.0	0.4
Current Expenditures	17.6 1/	3.6	13.4	1.8	11.8	1.5	15.2	2.1
Purchase of Assets	n.a.	n.a.	52.0	7.1	24.3	3.2	11.7	1.6
Total	488.7	100.0	732.9	100.0	769.3	100.0	736.2	100.0

1/ Consists only of expenditures on Employment Program

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Table 2

JAMAICA - PUBLIC SECTOR CAPITAL EXPENDITURES 1980/81 - 1983/84

(J$ Million)

	Estimate							
	1980/81		1981/82		1982/83		1983/84	
	Amount	%	Amount	%	Amount	%	Amount	%
Directly Productive								
Agriculture	92.1	18.8	149.9	20.4	157.0	20.4	109.7	15.0
Mining	.4	-	6.9	.9	.8	-	1.6	-
Manufacturing	8.7	1.8	11.5	1.6	26.3	3.4	26.5	3.6
Tourism	8.3	1.7	29.0	4.0	40.1	5.2	57.2	7.8
Subtotal	109.5	22.3	197.3	26.9	224.2	29.0	195.0	26.4
Economic Infrastructure								
Power and Energy	55.0	11.2	76.8	10.5	47.9	6.2	58.9	8.0
Water and Other Utilities	35.6	7.3	33.9	4.6	32.8	4.3	58.6	8.0
Transport and Communications	138.7	28.5	162.0	22.1	138.1	18.0	159.9	21.8
Other Economic Infrastructure	47.4	9.7	49.3	6.7	113.6	14.8	72.2	9.8
Subtotal	276.7	56.7	322.0	43.9	332.4	43.3	349.6	47.6
Social Infrastructure								
Health	11.0	2.2	19.3	2.6	20.8	2.7	14.0	1.9
Education	9.5	2.0	24.1	3.3	20.4	2.7	30.8	4.2
Housing	35.6	7.3	53.2	7.3	67.1	8.7	24.4	3.3
Other	22.6	4.6	59.2	8.1	56.9	7.4	58.2	7.9
Subtotal	78.7	16.1	158.8	21.3	165.2	21.5	127.4	17.3
Administration	23.8	4.9	57.8	7.9	47.5	6.2	64.2	8.7
Grand Total	488.7	100.0	732.9	100.0	769.3	100.0	736.2	100.0
Memorandum Items								
GDP	4,863.0		5,372.5		5,895.4		6,916.7	
As % of GDP	10.0		13.6		13.0		10.6	

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Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		
	Total	External	Total	External	Total	External	Total	External	EXTERNAL FINANCING SOURCE
ONGOING PROJECTS	1087.191	582.209	747.835	408.519	779.797	379.337	676.186	257.618	
Central Government	362.477	121.202	331.52	153.646	374.457	171.327	306.028	109.498	
Agriculture	68.576	26.992	63.318	33.566	83.706	41.902	96.576	52.786	
Livestock research	0.382		0.5		0.5		0.5		
Crop research	0.414		0.4		0.4		0.4		
Livestock improvement	0.038		0.1		0.1		0.1		
Veterinary services	0.041								
Plant protection	0.133								
Agricultural mechanical services	0.2		0.5		0.5		0.5		
Soil conservation works	1.75		1		1.5		1		
Dev. of offshore fishing	1		0.75		0.75		0.75		
Dev. of land settlement	0.198		2		2		1		
Improvement - public garden & zoo	0.3		0.4		0.5		0.6		
Land acquisition for agric. projects	1.275		0.5		1		1		
Nursery production	1.096		1		1		0.5		
CARICOM training	0.168	0.027							CDB
Inland fisheries	2.963	0.515							USAID
Jamaica agricultural research	6.32	3.154							IDB
Agricultural planning - Phase I	4.25	0.92							USAID
Agricultural marketing development	6.45	4.09	5.791	4.241	12	5.462	12	5.96	USAID
Institutional strengthening - Dept. of Forestry & Soil Coservation	0.52	0.088							FAO/UNDP
Intensive farm production	0.22								IBRD/Germany
Land resource assessment	1.459	0.173	0.574						Neth/USAID
Hague Meylersfield	1.26	0.511							Neth.
Oysterculture	0.34	0.086							IRDC
Delivery of veterinary sevices	2.83	1.174	2.81	1.405					EEC
Banana plantation	2.223	1.588							EEC
Construction of rural markets	7.268	3.607							TDB
Claverty Cottage/Shirley Castle Coffee	5	2	29.2	18.92	40.456	24.44	58.226	34.826	OECF (Japan)
Second integrated rural project	0.49	0.49							USAID
Rural physical planning	2.398	0.209	2.693		3				Neth/IBRD/USAID/Germany
Agro Business Development	14	8.36	15	9	20	12	20	12	Germany
1st rural dev. project	3.25								
Pilot hillside project			0.1						
Dev. of yam storage & marketing	0.17								New Zealand
Sheep & goat multiplication project	0.17								
Mining	1.319		1.739	0.679	0.35	0	0.4	0	
Quarry zoning	0.17		0.2		0.35		0.4		
Industrial minerals	1.049		1.539	0.679					UNDP
Metallic mineral	0.1								CIDA
Manufacturing	0.422	0	0.35	0	0	0	0	0	
Industrial training schemes	0.072								
Cotton polyester project	0.35		0.35						

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		
	Total	External	Total	External	Total	External	Total	External	EXTERNAL FINANCING
Power and Energy	21.504	13.062	25.923	14.789	17.52	9.71	8	3.252	
Rural electrification	6.692	4.96	3.576	1.673					EEC
Alternate energy R & D	1.25	1.05							OLADE
Mini hydro	6.772	4.052	15.097	9.816	7.52	5.21			CIDA
Wind mapping & energy assessment	0.09								EEC
Energy sector assistance	6.7	3	7.25	3.3	10	4.5	8	3.252	USAID
Other Utilities	14.484	0	6.9	0	1.1	0	1.5	0	
Irrigation projects	3.105		0.3		0.3		0.7		
General amenities & facilities (KSAC)	2.803		2.8		0.4		0.4		
General amenities & facilities (other)	2.826		2.8		0.4		0.4		
General amenities & facilities	5.75								
Water resources			1						
Transport and Communication	58.842	14.137	79.715	43.289	83.51	42.434	70.821	28.212	
Main roads constr. & major improvement	1.71		1.7						
Main roads - minor improvements			1		2		2		
Main roads - preventive measures	3		6.2		6.2		6.2		
Bridges: Local programme	0.34		1		1.2				
Flood damage preventive measures			0.5		1				
Surveys, invetigations & planning	0.24		0.3		0.3				
RRIP (local)	0.55								
Metrication			0.2		0.2				
Traffic exam. depots - constr. & improv.	0.2		0.2		0.8				
Multiplex (VHF) radio system			0.25		0.25				
Clearance of channels - Rio Cobre and Sandy Gully	8.693								
Flood water control (KSAC)	0.3		1		1.6		1.6		
Flood water control (other parishes)	0.62		0.8		1		1		
River control works	0.28		0.5		0.5		0.5		
Sea defence & land reclamation	0.1		0.5		0.5		0.5		
Road constr. & improv. (KSAC)	1.481		2.5		3		3		
K.M.R. transport project(KSAC)	1.046		1.1		1.1		1.1		IBRD
Post Office - New constr. & cap. improv.	0.26		0.24		0.323		0.524		
Telegraph improvment	0.254		0.226		0.245		0.37		
International airports	4.4								
Domestic aerodromes	0.17		0.462		1.14		0.5		
Facilities for air transport	1.918		0.1	0.1					
Facilities for air navigation	2.1		10	10	12	12			France(protocol loan)
RIMP II	0.157								
RIMP III	13.308	6.11	28.867	19.659	22.488	10.497	22.53	9.758	IBRD/Saudi
South Gully Drainage	1.803		1.2						CDB
Arterial roads	0.547								IBRD
KMR urban transport project	9.42	5.134	15	10	25.271	18.537	30.847	18.454	IBRD
Bridges IV & V	4.755	2.893	5.87	3.53	2.393	1.4	0.15		CIDA
RRIP	0.55								IDB
Secondary & parish council roads	0.64								IDB

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		
	Total	External	Total	External	Total	External	Total	External	EXTERNAL FINANCING
Other Economic Infrastructure	5.44	3.698	4.473	3.973	0	0	0	0	
Computer services R.B.	5.44	3.698	4.473	3.973					EEC
Education	66.79	30.232	71.064	32.258	104.667	53.728	77.696	24.963	
Scholarships & training schemes	0.559		1.2		2		2		EEC/other
Scholarships & fellowships to Institutions of higher learning	3.74	2.805	1	1					
Admin. Staff College	0.395		0.525		0.6		0.6		
Teachers College	0.54		0.9						
Primary schools	4.5		4.5		4		5		
Secondary schools	0.25		1		3		3		
High schools	0.232		1		2		0.5		
LEAP			0.45						
Comprehensive high schools	0.06		0.3		0.5		0.75		
Creative Prod. & training	0.993		3		3		3		
4-H clubs training centres	0.06		0.2		0.2		0.2		
Jamaica German Auto school (JAGAS)	0.2		0.923						
Maritime Training Institute	0.853								
G.C. Foster College	0.21		0.38						
Trade and Vocational schools	0.641	0.05							
Primary schools community assisted project	0.559	0.245							
Primary schools - New & replacement	14.35	11.48	26.5	21.745	47.8	41	17.8	12.245	IDB
Primary school - Special education	0.808	0.46	0.7	0.7					
World Bank III CAST	5.417	3.447	1	1					IBRD
Special education project	0.067	0.039							
Basic schools	0.002								
Primary schools - project primer	0.004								
Agricultural education			4.1	3.38	13.028	10.296	15.284	11.42	USAID
Family Life education	0.337		0.2	0.2					USAID
Family Life education	0.199	0.133	0.159	0.121	0.13	0.109			USAID
School feeding programme			0.116		0.085		0.085		
HEART	12.07		12		19.2		20		
Basic skills training (HEART)	12.985	6.985	10.318	3.875	9.124	2.323	9.477	1.298	
World Bank III Ed. Project (HEART)	6.359	4.588	0.593	0.237					IBRD
Students revolving loan fund	0.4								
Health	19.914	8.048	18.65	9	23.1	13	5	0	
St. Ann's Bay Hospital	0.03								
Lionel Town Hospital (female ward)	1.938		0.25						
Hospital improvement programme	4.381		5		4		5		
Purchase of medical equipment	0.841		1.6		1.1				
Purchase of motor vehicles & equipment	0.05								
Planning expenses (major projects)	0.35								
Improv. to community health centres	3.748	3.748	1.3						Neth
Health mgt. improvement project	6.622	4.3	10	9	18	13			USAID
Duhaney Park health centre	0.38								UNFPA
Construction of health centres	0.41		0.25						UNICEF
Public health laboratory	0.177		0.25						EEC
Improvement -San Antonio health centre	0.987								

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		
	Total	External	Total	External	Total	External	Total	External	EXTERNAL FINANCING
Housing	14.621	12.559	4	2.8	4.5	4.5	0	0	
Settlement upgrading	7.747	7.747							USAID
Pre fab plants	6.874	4.812	4	2.8					USAID
USAID financed schemes					4.5	4.5			USAID
Other Social Infrastructure	32.971	0.497	16.161	0.661	9.116	0.466	7.635	0.285	
Police stations-new & capital improvement	2.75		3		1.5		1.5		
Major police equipment	7.95		6						
Major military equipment	1.6								
Court houses - new & capital improvements	1.4		0.8		0.8		0.8		
Approved schools-new & capital improvement	0.15		0.3		0.35		0.35		
Prisons - new & capital improvements	0.8		0.8		0.8		0.8		
Golden Age Home	2.3		0.5						
Child care institution	1.12		0.5		0.5		0.5		
Community centres - repairs & construction	1.369				1				
Community Enterprise Organization	0.3								
Institute of Sports	1.385		0.5		0.5				
General amenities facilities (KSAC)	5.72								
Development of national parks	0.1		0.1		0.1		0.1		
Public beaches	0.15		0.1		0.1		0.1		
Markets	2.273		0.3		0.3		0.3		
Infirmaries - improvement	0.247		0.5		0.5		0.5		
Duhaney Park project	0.114	0.114	0.27	0.27	0.271	0.271	0.285	0.285	PAHO
Programme for adolescents	0.261	0.261	0.391	0.391	0.195	0.195			
Support for women in rural areas	0.122	0.122							UNVF
Purchase of vehicles and spares	0.51								
Watershed protection	2.1		1.6		1.6		1.8		
Ecological conservation	0.25		0.5		0.6		0.6		
Administration	57.594	11.977	39.227	12.631	46.888	5.587	38.4	0	
Students revolving loan fund-admin. exp.	1.3		1		1		1		
Collectorates-new & major improvement	0.323		0.35		0.4		0.3		
Supply division stores	0.025								
Fac. to control illicit import of goods	0.275								
Acquisition of property for siting of public sector projects	1		1		1.5		1.5		
Surveys and inquiries	4.494		1		1		1		
Feasibility studies	0.25		0.3		0.3		0.3		
Population census	1		1						
Public bldg.-Planning & Advisory committee	0.1		0.1		0.1		0.1		
Gen. offices-new & major improvements	1		0.55		0.5		0.5		
Gov't buildings-construction & improvement	0.5		2		2		2		
World Bank technical assistance	1.935	1.085	0.21	0.21					World Bank
Jamaica pre-investment I	1.94	1.09							
IDB professional manpower assistance	1.257	0.563							IDB
Tax structure exam project	11.225	9.239	6.663	4.267	2.908	0.507			USAID
Admin. reform programme			9.454	8.154	6.58	5.08	1		IBRD
Local development programme	30		15		30		30		
Miscellaneous buildings	0.52		0.2		0.2		0.3		
General offices-constr. & major improv.	0.45		0.4		0.4		0.4		

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		EXTERNAL FINANCING
	Total	External	Total	External	Total	External	Total	External	
Rest of Public Sector	724.714	461.007	416.315	254.873	405.34	208.01	370.158	148.12	
Agriculture	14.1	9.2	8.4	3.5	2.3	1.5			
Fish and shrimp farming (NIBJ)	7.3	6.4	8.4	3.5					
Forestry development (FIDCO/NIBJ)	2.9	1.9			2.3	1.5			
Upper blk. morass dev't (BRUMDEC/NIBJ)	3.9	0.9							
Tourism	11.8	0	4.75	0.9	5.2	0.8	6	0.75	
Hotel refurbishing (NHP)	6.4		1.55	0.9	1.2	0.8	1	0.75	
Upgrading tourist area & public facilities islandwide (UDC)	4.3		3.2		4		5		
Ocho Rios re-development (UDC)	1.1								
Manufacturing	89.3	48.4	49	23.8	66.5	38.5	7.3	0	
Cement dev't (Cement Co., NIBJ)	74.3	42.4	42.4	21.4	57.5	36.5			
Free zone - Kingston (Port Authority)	11	6	3.6	2.4	4	2	5		
Free zone warehouse (Port Authority)	4		3		5		2.3		
Mining	1.3		1.3						
Gypsum(NIBJ)	1.3		1.3						
Power and Energy	293.9	269.8	180	138.3	173.38	94.08	113.8	77.6	
2-small hydro plants (JPS)					28				
Diesel generating plant (JPS)	102	102	81.7	73	23.6	22.6			OECF/Japan
Transmission (JPS)	13.2	13.2	20.5	12.2	18	7.2	15	6	Ven./IBRD
Substation (JPS)	18	12	13.1	9.2	11.5	7.2	38	32.4	Ven./IBRD
Distribution (JPS)	24.1	10	30.1	14.7	24	10.8	20	9	EDC/IBRD
Expansion of Scada (JPS)	59.5	59.5	27.6	22.2	30	18	17	11.4	EDC/IBRD/USAID
Consulting services in rehab. power plants and training, etc. (JPS)	14	14	7	7	6.8	6.8	6.8	6.8	IBRD
Rehab.-Old Habour & Hunts Bay (JPS)	52.1	52.1							
Exploration of offshore wells and peat programme (PCJ)	11	7			31.48	21.48	17	12	
Other Utilities	46.385	12.6	41.1	25.3	31.7	11.9	43.8	19.3	
Major water supply schemes (NWC)	2.885								
Sewerage projects (NWC)	0.2		0.1						
Ocho Rios - Water & sewerage (UDC)			4						
Major rural water supply (NWC)	2.9		4						
Lower Kingston sewerage (NWC)	0.2				5.4		1.5		
Greater Mandeville water supply (NWC)	13.3	10.6	7	4.3	10		8.5	6.3	IDB
Castleton Wag water scheme (NWC)	2.6		2						
Technical assistance program (NWC)	3	2	15.1	12.1	14.5	11.9	4.9	2.9	IBRD
Rehab.-water & sewerage system (NWC)	3		4.5	4.5	1.8		7.3	4.5	EXIM/Lloyds
Kingston & St.Andrew sewerage system (NWC)	4.4		4.4	4.4			9	5.6	
Other projects(NWC)	13.9						12.6		

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		
	Total	External	Total	External	Total	External	Total	External	EXTERNAL FINANCING
Transport and Communication	215.377	110.707	97.915	50.073	72.56	30.53	49.358	15.47	
Technical stores bldg. (Air Jamaica)	2.579								
Airport Authority if Jamaica	8.5		7.9	2.9	7	2	6		Belgium/IBRD
Television - modernization (JBC)	11.5	10.2	5	3.2					France
Radio expansion of AM coverage (JBC)	11.2	11.2							EXIM Bank
Updating of studio production & outside broadcast facilities (JBC)	9.7								
Gauging and ballasting (JRC)	2.823	1.6	2	1.3	5.7	2.4			
Track modernization (JRC)	3.9	1.8	10.3	7.8	9	7.3			
Bridges maintenance (JRC)	0.7		0.5		1.1				
Buildings (JRC)	9		1		1.5				
Security lighting (JRC)	0.1		0.4		0.3				
Level crossing (JRC)	0.2		0.8						
Refurbishing coaches & wagons (JRC)	0.7								
Train control equipment (JRC)	0.2								
Micro computer/office eqpt. (JRC)	0.4				0.5				
Governor test stand (JRC)	3.4	3.4							
Equipment (JTC)	117.18	68.46	53.07	27.74	40.35	18.29	36.77	14.75	
Land and building (JTC)	9.83	0.52	3.61		2.05		1.69		
Vehicles (JTC)	1.76		1.79		1.9		1.74		
SPC-telephone excahange (JAMINTEL)	5	4.5	0.653	0.653					
Upgrading power system (JAMINTEL)	0.1								
Data processing (JAMINTEL)	0.415	0.293							
Center vertical extension (JAMINTEL)	0.14								
Telecom equipment (JAMINTEL)	1.029	0.923	1.242	1.08	0.62	0.54	0.828	0.72	
Motor vehicles (JAMINTEL)	0.4		0.12		0.24		0.13		
Telex switching system (JAMINTEL)	5.19	4.32	4.04	3.915					
Telegraph switching & operating system (JAMINTEL)	1.812	1.44	1.56	1.485					
JC-PP alternative path (JAMINTEL)	0.208	0.09							
AC & electric system (JAMINTEL)	0.4								
Optimization of H.F. services (JAMINTEL)	1.501	1.161							
Tug station of break water (Port Auth.)	0.44		0.6						
Ro/Ro berth (Port Authority)	1.37		1.63						
Equipment (JAMINTEL)	0.4	0.4	0.7		0.7		0.7		EDC/RBC
Upgrading berths 8,9,10,11 (JAMINTEL)	0.4	0.4	1		1.6		1.5		
Other (JAMINTEL)	2.7								
Coast road construction-Breezy Castle to Paradise street (UDC)	0.2								
Other Economic Infrastructure	28.827	10.3	25.3	13	51.5	30.7	148.7	35	
Infrastructure works (UDC)	10.727								
Comprehensive rural township dev. (UDC)	14.7	10.3	20	13	44.6	30.7	50	35	IDB
West Kingston market development (UDC)	3.4		5.3		6.9		12.2		
Unallocated investment (NIBJ)							86.5		

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		EXTERNAL FINANCING
	Total	External	Total	External	Total	External	Total	External	
Other Social Infrastructure	0.71	0	1.5	0	0.7	0	0.85	0	
Jamaica conference center (UDC)	0.6		1		0.5		0.8		
Sports club (JAMINTEL)	0.11		0.5		0.2		0.05		
Administration	23.015	0	7.05	0	1.5	0	0.35	0	
Office furniture (JAMINTEL)	0.515		0.25		0.3		0.35		
Administration building (JAMINTEL)	4.5		6.8		1.2				
Building - New Kingston (PCJ)	18								
New Projects	12.33	1.77	151.449	86.706	365.456	160.256	229.052	145.551	
Central Government	2.33	1.77	71.012	42.79	121.409	67.339	166.552	105.251	
Agriculture	0	0	1.7	1.7	1	1	0	0	
Hillside agriculture project			1.7	1.7	1	1			USAID
Power and Energy	0	0	1	0.9	1.7	1.6	1.7	1.6	
Back Rio Grande hydro power development			1	0.9	1.7	1.6	1.7	1.6	
Other Utilities	0	0	1	0.3	8.4	5.88	8.4	5.88	
Pedro plain irrigation project			1	0.3	8.4	5.88	8.4	5.88	
Transport and Communication	0	0	42	18	60.992	20	71.201	36	
Bridges VI			12		25.992		6.201		CIDA
R.RIP			30	18	35	20	65	36	IDB
Other Economic Infrastructure	0.33	0.27	0.77	0.63	3	1.8	10	6	
National heritage and craft	0.33	0.27	0.77	0.63	3	1.8	10	6	
Education	0	0	6.65	6.65	7.32	7.32	6.95	6.95	
Professional training for machine tools attendants			0.45	0.45	0.45	0.45	0.45	0.45	Italy
Scholarships & training schemes			2.08	2.08	0.88	0.88	0.8	0.8	EEC
Admin. staff college and FACT			0.78	0.78	0.33	0.33	0.3	0.3	EEC
Seminars & inservice training programs			1.56	1.56	0.66	0.66	0.6	0.6	EEC
UWI/CAST			1.78	1.78	5	5	4.8	4.8	EEC
Health	0	0	4.537	3.665	21.1	13.804	44.902	28.31	
3rd population & health project			1.437	0.937	8	3.304	22.252	11.36	IBRD
Population policy support					5	3	10.75	6.45	USAID
Upgrading hospitals & health centers			3.1	2.728	5.5	4.9	11.9	10.5	Italy
Mobile hospitals					2.6	2.6			Italy

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		
	Total	External	Total	External	Total	External	Total	External	EXTERNAL FINANCING
Other Social Infrastructure	0	0	0.806	0.683	0.797	0.683	0.799	0.683	
Urban upgrading project			0.806	0.683	0.797	0.683	0.799	0.683	UNICEF
Administration	2	1.5	12.549	10.262	17.1	15.252	22.6	19.828	
Jamaica pre investment II			2	1.4	8.4	6.552	12.6	9.828	IDB
Early alert	2	1.5	6.749	5.062					IDB
Technical assistance loan II			3.8	3.8	8.7	8.7	10	10	IBRD
Rest of Public Sector	10	0	80.437	43.916	244.047	92.917	62.5	40.3	
Agriculture			48.3	27.1	40.6	21.9			
Jamaica Aqualapia, Ltd.(NIBJ)			8.2	4.9					
Fish Hatchery (NIBJ)			1.5	0.7	1.4	0.7			
Banana development (NIBJ)			38.6	21.5	39.2	21.2			
Tourism	0	0	0	0	3.6	0	4	0	
Port Royal development (UDC)					3.6		4		
Power and Energy	0	0	20.337	9.816	28.48	23.71	0	0	
Small scale hydro - Rams Horn (PCJ)			3.55	2.13	2.28	1.55			Germany
Constant Spring (PCJ)			4.73	3.11	2.67	1.82			Germany
Rio Bueno (PCJ)			4.07	2.58	2.57	1.84			Germany
Morant Bay hydro electric project (PCJ)			2.747	1.996					CIDA/OIC
Petrojam refinery (PCJ)			5.24		20.96	18.5			
Other Utilities	0	0	2.4	0	32.2	13	6	0	
Major rural water supply schemes (NWC)			2.4		17.1	13			Italy
Parish systems & take over for rehab.(NWC)					9.3				
Hellshire New Town infrastructure (UDC)					5.8		6		
Transport and Communications	0	0	9.4	7	139.167	34.307	52.5	40.3	
Refrigeration vessels (JMM)					94.5				
Locomotive speed recorders (JRC)					0.5				
Track equipment maintenance (JRC)					1.747	1.747			
T.D.M.A. & microwave back land link (JAMINTEL)					26.62	22.56	8.3	3.3	
Carib. Basin cable facilities (JAMINTEL)					4.5	4.5	32.7	31.5	
Port Royal step way (Port Authority)			0.4						
Gatehouse & misc. works (Port Authority)			0.5						
Technical lighting & electrical distribution (Port Authority)			0.3						
K'ston dry dock upgrading (Port Authority)			2.7	1.5					
Cross Roads redevelopment (UDC)					5.8		6		
Aircraft spares (Air Jamaica)			5.5	5.5	5.5	5.5	5.5	5.5	

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		
	Total	External	Total	External	Total	External	Total	External	EXTERNAL FINANCING
Unallocated	10								
TOTAL PROJECTS	1099.521	583.979	899.284	495.225	1145.253	539.593	905.238	403.169	
Other capital expenditure	164.295	11	119.669	0	119.75	0	117.65	0	SOURCE
Transfers (ongoing)	121.756	0	92.05	0	94.6	0	95.3	0	
Agriculture	2.963	0	2.1	0	2	0	2.5	0	
ADC	0.383								
Midland Enterprises, Ltd.	0.45								
Forest Department	1.705		2		2		2.5		
AIBGA (grant)	0.425		0.1						
Manufacturing	13.1	0	9.1	0	10.1	0	10	0	
JIDC	13		9		10		10		
JAMAG Ltd.	0.1		0.1		0.1				
Tourism	48	0	49.5	0	50	0	50	0	
Jamaica Tourist Board (grant)	46		49		49.5		49.5		
Jamaica Vacations Ltd. (grant)	0.5		0.5		0.5		0.5		
Jamaica Reservations Services Ltd. (grant)	0.85								
Bath - St. Thomas (grant)	0.25								
Milk River Bath (grant)	0.1								
Jamaica Attractions Dev. Co. (grant)	0.3								
Transport and Communications	9.072	0	0	0	0	0	0	0	
J.R.C.	9.072								
Other Social Infrastructure	6.721	0	0.35	0	0	0	0	0	
National Library of Jamaica	0.079								
Things Jamaica Ltd.	2.25								
Jamaica National Trust Commission	0.632		0.35						
Jamaica Cultural Development Corp.	0.135								
J.I.S.	3.625								
Other Economic Infrastructure	11.8		11		11		11.3		
Grant to JNEC	6.9		7		7		7		
Scientific Research Council	4		4		4		4.3		
Bureau of Standards	0.9								

Table 3: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88

(J$ millions)

	1984/85		1985/86		1986/87		1987/88		
	Total	External	Total	External	Total	External	Total	External	
Administration	17		20		21.5		21.5		
Contribution to IDB	9		10		10.5		10.5		
Contribution to CDB	5		5.5		6		6		
Contribution to IBRD	3		4.5		5		5		
Purchase of Shares	13.1								
Credits (ongoing)	21.446	11	21.6	0	25.1	0	22.3	0	
Rural farm credit	11.446	6	6.1		8		4.1		
Export crops credit	10	5	15.5		17.1		18.2		IBRD
Loans (ongoing)	1.533	0	1.019	0	0.05	0	0.05	0	
Electricity Authority	1.283		0.969						
Miscellaneous loans	0.25		0.05		0.05		0.05		
Funds (ongoing)	19.56	0	5	0	0	0	0	0	
UNDP trust fund	8								
Self start fund	5.231		5						
Trust fund under USAID loan	6.329								
GRAND TOTAL	1263.816	594.979	1018.953	495.225	1265.003	539.593	1022.888	403.169	
Ongoing	1251.486	593.209	867.504	408.519	899.547	379.337	793.836	257.618	
New	12.33	1.77	151.449	86.706	365.456	160.256	229.052	145.551	

Table 4: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88
SUMMARY
(J$'000)

	1984/85		1985/86		1986/87		1987/88	
	Total	External	Total	External	Total	External	Total	External
SUMMARY:								
Total	1263.816	594.979	1018.953	495.225	1265.003	539.593	1022.888	403.169
Ongoing	1251.486	593.209	867.504	408.519	899.547	379.337	793.836	257.618
New	12.33	1.77	151.449	86.706	365.456	160.256	229.052	145.551
Agriculture	107.085	47.192	145.418	65.866	154.706	66.302	121.376	52.786
Ongoing	107.085	47.192	95.418	37.066	113.106	43.402	121.376	52.786
New	0	0	50	28.8	41.6	22.9	0	0
Mining	2.619	0	3.039	0.679	0.35	0	0.4	0
Ongoing	2.619	0	3.039	0.679	0.35	0	0.4	0
New	-	-	-	-	-	-	-	-
Manufacturing	102.822	48.4	58.45	23.8	76.6	38.5	17.3	0
Ongoing	102.822	48.4	58.45	23.8	76.6	38.5	17.3	0
New	-	-	-	-	-	-	-	-
Tourism	59.8	0	54.25	0.9	58.8	0.8	60	0.75
Ongoing	59.8	0	54.25	0.9	55.2	0.8	56	0.75
New	0	0	0	0	3.6	0	4	0
Power and Energy	316.687	282.862	228.229	163.805	221.08	129.1	123.5	82.452
Ongoing	316.687	282.862	206.892	153.089	190.9	103.79	121.8	80.852
New	0	0	21.337	10.716	30.18	25.31	1.7	1.6
Water and Other Utilities	60.869	12.6	51.4	25.6	73.4	30.78	59.7	25.18
Ongoing	60.869	12.6	48	25.3	32.8	11.9	45.3	19.3
New	0	0	3.4	0.3	40.6	18.88	14.4	5.88
Transport and Communication	283.291	124.844	229.03	118.362	356.229	127.271	243.88	119.982
Ongoing	283.291	124.844	177.63	93.362	156.07	72.964	120.179	43.682
New	0	0	51.4	25	200.159	54.307	123.701	76.3
Other Economic Infrastructure	46.397	14.268	41.543	17.603	65.5	32.5	170	41
Ongoing	46.067	13.998	40.773	16.973	62.5	30.7	160	35
New	0.33	0.27	0.77	0.63	3	1.8	10	6

Table 4: JAMAICA - PUBLIC SECTOR INVESTMENT PROGRAM, 1984/85-87/88
SUMMARY
(J$'000)

	1984/85		1985/86		1986/87		1987/88	
	Total	External	Total	External	Total	External	Total	External
Education	66.79	30.232	77.714	38.908	111.987	61.048	84.646	31.913
Ongoing	66.79	30.232	71.064	32.258	104.667	53.728	77.696	24.963
New	0	0	6.65	6.65	7.32	7.32	6.95	6.95
Health	19.914	8.048	23.187	12.665	44.2	26.804	49.902	28.31
Ongoing	19.914	8.048	18.65	9	23.1	13	5	0
New	0	0	4.537	3.665	21.1	13.804	44.902	28.31
Housing	14.621	12.559	4	2.8	4.5	4.5	0	0
Ongoing	14.621	12.559	4	2.8	4.5	4.5	0	0
New	-	-	-	-	-	-	-	-
Other Social Infrastructure	40.402	0.497	18.817	1.344	10.613	1.149	9.284	0.968
Ongoing	40.402	0.497	18.011	0.661	9.816	0.466	8.485	0.285
New	0	0	0.806	0.683	0.797	0.683	0.799	0.683
Administration	99.609	13.477	78.826	22.893	86.988	20.839	82.85	19.828
Ongoing	97.609	11.977	66.277	12.631	69.888	5.587	60.25	0
New	2	1.5	12.549	10.262	17.1	15.252	22.6	19.828
Unallocated	42.91	0	5.05	0	0.05	0	0.05	0
Ongoing	32.91	0	5.05	0	0.05	0	0.05	0
New	10	0	0	0	0	0	0	0

Table 5: Functional Classification of Public Sector Capital Expenditure
FY 1984/5 - 1987/8
J$ millions

	1984/85*	%	1985/86*	%	1986/87*	%	1987/88*	%
Productive Sectors								
Agriculture	107.1	8.5%	145.4	14.3%	154.7	12.2%	121.4	11.9%
Mining	2.6	0.2%	3.0	0.3%	0.4	.0%	0.4	.0%
Manufacturing	102.8	8.1%	58.5	5.7%	76.6	6.1%	17.3	1.7%
Tourism	59.8	4.7%	54.3	5.3%	58.8	4.6%	60.0	5.9%
Total	272.3	21.5%	261.2	25.6%	290.5	23.0%	199.1	19.5%
Economic Infrastructure								
Power and Energy	316.7	25.1%	228.2	22.4%	221.1	17.5%	123.5	12.1%
Transport and Communications	283.3	22.4%	229.0	22.5%	356.2	28.2%	243.9	23.8%
Water and Other Utilities	60.9	4.8%	51.4	5.0%	73.4	5.8%	59.7	5.8%
Other Economic Infrastucture**	46.4	3.7%	41.5	4.1%	65.5	5.2%	170.0	16.6%
Total	707.2	56.0%	550.2	54.0%	716.2	56.6%	597.1	58.4%
Social Infrastructure								
Education	66.8	5.3%	77.7	7.6%	112.0	8.9%	84.6	8.3%
Health	19.9	1.6%	23.2	2.3%	44.2	3.5%	49.9	4.9%
Housing	14.6	1.2%	4.0	0.4%	4.5	0.4%	0.0	0.0%
Other social infrastructure	40.4	3.2%	18.8	1.8%	10.6	0.8%	9.3	0.9%
Total	141.7	11.2%	123.7	12.1%	171.3	13.5%	143.8	14.1%
Administration	99.6	7.9%	78.8	7.7%	87.0	6.9%	82.9	8.1%
Unallocated	42.9	3.4%	5.1	0.5%	0.1	.0%	0.1	.0%
GRAND TOTAL	1263.8	100.0%	1019.0	100.0%	1265.0	100.0%	1022.9	100.0%
Memorandum Item								
Nominal GDP (FY basis)	8915		10140		11215		12374	
Total Capital Expenditures/GDP	14.2%		10.0%		11.3%		8.3%	

*Includes NIBJ investments, but not UDC commercially financed.

**1987/88 includes NIBJ investment program; no project breakdown available.

Table 6

JAMAICA - ECONOMIC CLASSIFICATION OF THE PUBLIC SECTOR INVESTMENT PROGRAM, 1985/86 - 1987/88

(in millions of J$)

	1985/86 1/		1986/87 1/		1987/88 1/	
	Amount	%	Amount	%	Amount	%
Capital Formation	792.3	78.0	1031.7	81.5	828.6	80.9
Research and Studies	6.3	0.6	11.4	0.9	15.0	1.5
Training	30.9	3.0	32.8	2.6	33.5	3.3
Technical Assistance	70.9	7.0	64.0	5.1	24.2	2.4
Transfers	91.0	8.9	92.6	7.3	92.8	9.1
Public	(71.0)	7.0	(71.1)	(5.6)	(71.3)	(7.0)
International	(20.0)	1.9	(21.5)	(1.7)	(21.5)	(2.1)
Credit	22.4	2.2	29.1	2.3	25.2	2.5
Current Expenditures	1.9	0.2	1.0	0.1	1.1	0.1
Purchase of Assets	1.5	0.1	2.5	0.2	2.5	0.2
Total	1017.2	100.0	1265.1	100.0	1022.9	100.0

1/ Includes NIBJ investments, but not UDC - commercially financed.

Note: Exchange Rate Assumption for PSIP projects - JS 4.5 = US$ 1.00.

Table 7

JAMAICA - FINANCING OF THE PUBLIC SECTOR INVESTMENT PROGRAM, 1983/84 - 1987/88

(in millions of J$)

	Estimated		Projected		
	1983/84	1984/85	1985/86	1986/87	1987/88
Total Capital Expenditures					
Public Sector Capital Expenditures	736.2	1255.6	1017.2	1265.1	1022.9
Central Government	485.3	603.5	612.2	792.1	635.5
Selective Public Enterprises 1/	250.9	652.1	405.0	473.0	387.4
-of which Central Government transfer to selected public enterprises	159.6	146.2	106.3	169.9	202.6
Public Sector Savings					
Central Government	-635.0	-159.6	-385.0	-190.0	-127.0
National Insurance Fund	96.0	97.0	100.0	106.0	110.0
National Investment Bank of Jamaica 2/	13.0	59.9	70.2	102.2	112.2
National Housing Trust	106.0	118.4	125.7	140.0	154.2
Selected Non-Financial Public Enterprises 1/	32.6	325.8	597.4	674.7	752.1
Total Public Sector Savings	-387.4	441.5	508.3	832.9	1001.5
Less: Financing for Other Uses 3/	69.0	215.4	225.7	246.0	264.2
Contribution of Public Sector Savings to the Financing of PSIP	-456.4	226.1	282.6	586.9	737.3
External Financing (net)	281.8	1454.8	993.1	421.3	163.3
Central Government (net)	370.0	1253.9	996.3	563.7	334.5
Disbursement			1968.3	1337.7	1094.5
Amortization			972.0	774.0	760.0
Selected Public Entities (net)	-88.2	250.8	-3.2	-142.4	-171.2
Disbursement	48.4	569.9	197.3	120.0	104.1
Amortization	136.6	319.1	200.5	262.4	275.3
Net Domestic Financing 4/	910.8	233.7	14.0	167.1	89.6
Reduction in Liabilities to the Domestic Banking System 5/	-	-659.0	-272.5	89.8	32.7
Memorandum Item					
Nominal GDP (FY basis) 6/	6,917.0	8,915.0	10,140.0	11,215.0	12,374.0
As % of GDP					
Total Capital Expenditures	10.6	14.1	10.0	11.3	8.3
Public Sector Savings (contributions)	-6.6	2.5	2.8	5.2	6.0
Net External Borrowing	4.1	16.3	4.8	3.8	1.3
Net Domestic Borrowing	13.2	2.6	0.1	1.5	0.7
Reduction in Liabilities to the Domestic Banking System	-	-7.4	-2.7	0.8	0.3
As % of Public Sector Capital Expenditures					
Public Sector Savings (contribution)	-62.0	18.0	27.8	46.4	72.0
Net External Borrowing	38.3	115.9	97.6	33.3	16.0
Net Domestic Borrowing/Reduction in Liabilities	123.7	-33.9	-25.4	20.3	12.0

1/ Includes Air Jamaica, Airports Authority, Broadcasting Company, International Telecommunications, Public Service Co., Merchant Marine, Telephone Co., National Sugar Corporation, National Hotels and Property, National Water Commission, National Housing Corporation, Port Authority, Urban Development Corporation, Railway Corporation, and Sugar Industry Authority.

2/ Formerly Jamaica National Investment Corporation.

3/ During 1983/84 - 1987/88, surplus of NHT is projected to be used to finance additional housing mortgages and the surplus of NIF is to be used to finance a medical insurance scheme (beginning in 1985/86) and hte commercial projects of the UDC.

4/ Includes bank and non-bank.

5/ Includes residual; positive figures represent additional domestic borrowing.

6/ For 1985/86 - 1987/88, GOJ estimates.

* This financing plan, drawn up in November 1984, uses an exchange rate of J$4.5 = US$1.00. By the time of the 1985/86 budget the rate was J$5.5 = US$1.00. Thus, these figures are not consistent with the 85/86 budget, although the composition of the capital program in real terms remains essentially unchanged. Moreover, ongoing discussions with the IMF suggest that both net external borrowing and repayments to the banking system will be substantially higher for the period, but the contribution of public sector savings will be of the order projected.

TABLE 8: Central Government Current Operations, 1983/84-1987/88
J$ Millions

	1983/84	1984/85	1985/86	1986/87	1987/88
Current Expenditures	2420	2788	3222	3349	3662
Wages and Salaries	967	1061			
Interest	802	1067			
Other	651	660			
Total Revenue	1785	2629	2837	3159	3598
Tax Revenue	1535	2050	2450	2776	3167
Taxes on Income and Profit	679	897	1046	1204	1346
Taxes on Property	29	30	35	40	45
Taxes on Production and Consumption	613	797	963	1090	1281
Taxes on International Trade and Transactions	214	326	406	442	495
Bauxite Levy*	174	400	196	197	241
Nontax Revenue	76	179	191	186	190
CURRENT SURPLUS/DEFICIT	-635	-159	-385	-190	-64
Memorandum Items					
GDP	6918	8915	10140	11215	12374
As % of GDP					
Current Expenditures	35.0%	31.3%	31.8%	29.9%	29.6%
Tax Revenue	22.2%	23.0%	24.2%	24.8%	25.6%
Bauxite Levy	2.5%	4.5%	1.9%	1.8%	1.9%

*Estimates for 1985/86 - 1987/88 reflect downward revision of bauxite levy proceeds because of recent plant closedown.

Table 9

SUMMARY ACCOUNTS OF SELECTED PUBLIC SECTOR ENTITIES 1984/1985 (Estimated)

	AIR JAMAICA (CY)	AIRPORTS AUTHORITY (CY)	BANANA COMPANY (CY)	J.B.C. (CY)	J.C.T.C. (CY)	JAMINTEL (FY)	J.M.M. (CY)	JPSCO (CY)	J.R.C. (CY)	J.T.C. (CY)
REVENUES	446.8	23.3	26.2	22.2	1105.8	69.6	34.2	672.5	22.1	164
EXPENDITURES 1/	418.5	14.8	42.4	20.8	1108.5	60.1	36.3	525.7	26.1	91.6
OPERATING PROFIT/LOSS (Cash)	28.3	8.5	-16.2	1.4	-2.7	9.5	-2.1	146.8	-4.0	72.4
CAPITAL EXPENDITURE	3.6	8.5	-	32.4	0	21.8	0	282.9	14.3	127.9
SELECTED FINANCING ITEMS										
Domestic Loans	0	0	0	5.0	0	0	1.6	0	3.7	5.8
External Loans	100.8	3.2	9.2	21.4	0	0	1.8	255.3	6.5	105.6
Government Transfers 2/	27.0	4.0	2.0	0	0	0	0	0	9.0	0
Amoritization	68.5	1.1	.7	6.1	0	0	5.9	78.5	6.7	101.0
Domestic	0	0	.7	1	0	0	0	15.8	0	0
External	68.5	1.1	0	5.1	0	0	5.9	62.7	6.7	101.0

1/ Excludes depreciation expenses

2/ Includes onlending of external loans

SUMMARY ACCOUNTS OF SELECTED PUBLIC SECTOR ENTITIES 1984/1985 (Estimated)

(Continued)

	N.H.C. (FY)	N.H.P. (FY)	N.S.C. (Cr.Y)	N.W.C. (FY)	P.C.J. (FY)	P.A. (CY)	S.I.A. (Cr.Y)	U.D.C. (FY)	TOTAL (Pgs. 1 & 2)
REVENUES	4.2	71.6		128.8	1061.5	31.6	318.6	41.7	4244.7
EXPENDITURES 1/	3.7	64.4		111.2	1032.6	10.8	317.4	34.0	3918.9
OPERATING PROFIT/LOSS (Cash)	.5	7.2		17.6	28.9	20.8	1.2	7.7	325.8
CAPITAL EXPENDITURE	0	6.4		46.4	29.0	24.0	30.6	28.8 3/	652.1
SELECTED FINANCING ITEMS									
Domestic Loans	11.0	0		0	0	9.7	0	0	36.8
External Loans	0	0		17.0	40.1	9.0	0	0	569.9
Government Transfers 2/	0	28.0		27.3	0	2.9	0	46.0	146.2
Amortization	9.0	46.8		16.9	1.4	12.3	0	21.8	376.7
Domestic	9.0	3.7		4.9	0	.7	0	5.4	57.6
External	0	43.1		12.0	1.4	11.6	0	16.4	319.1

1/ Excludes depreciation expenses

2/ Includes onlending of external loans

3/ Excludes commercially financed projects

SUMMARY ACCOUNTS OF SELECTED PUBLIC SECTOR ENTITIES 1985/1986

	AIR JAMAICA (CY)	AIRPORTS AUTHORITY (CY)	BANANA COMPANY (CY)	J.B.C. (CY)	J.C.T.C. (CY)	JAMINTEL (FY)	J.M.M. (CY)	JPSCO (CY)	J.R.C. (CY)	J.T.C. (CY)
REVENUES	458.4	26.9	75.5	29.2	1388.6	85.6	39.7	849.9	33.0	233.0
EXPENDITURES 1/	433.7	15.6	79.7	20.6	1380.0	67.5	3136.3	647.4	28.0	108.5
OPERATING PROFIT/LOSS (Cash)	24.7	11.3	-4.2	8.6	8.6	18.1	3.4	202.5	5.0	124.5
CAPITAL EXPENDITURE	5.5	7.9	0	5.0	0	15.4	0	180.0	15.0	58.5
SELECTED FINANCING ITEMS										
Domestic Loans	27.0	0	0	0	0	0	0	5.0	0	35.5
External Loans	0	3.1	0	3.2	0	0	0	138.3	9.1	27.5
Government Transfers 2/	0	0	0	0	0	0	0	0	9	0
Amortization	76.9	0	0	6.8	0	0	7.7	79.9	8.0	83.0
Domestic	0	0	0	1.0	0	0	0	16.9	8.0	83.0
External	76.9	0	0	5.8	0	0	7.7	63.0	-	-

1/ Excludes depreciation expenses

2/ Includes onlending of external loan.

SUMMARY ACCOUNTS OF SELECTED PUBLIC SECTOR ENTITIES 1985/1986

(Continued)

	N.H.C. (FY)	N.H.P. (FY)	N.S.C. (Cr.Y)	N.W.C. (FY)	P.C.J. (FY)	P.A. (CY)	S.I.A. (Cr.Y)	U.D.C. (CY)	TOTALS (Pgs. 1 & 2)
REVENUES	4.5	62.8		145.3	1239.0	34.6	351.9	61.9	5119.8
EXPENDITURES 1/	4.2	51.4		116.1	1161.1	13.3	302.6	56.4	4522.4
OPERATING PROFIT/LOSS (Cash)	.3	11.4		29.2	77.9	21.3	49.3	5.5	597.4
CAPITAL EXPENDITURE	0	1.5		39.4	20.3	15.0	0	41.5 4/	405.0
SELECTED FINANCING ITEMS									
Domestic Loans	12.5	18.0 2/		0	0	1	0	0	99.0
External Loans	0	0		5.8	3.3	6.0	0	1.0	197.3
Government Transfers 3/	0	0		32.5	0	2.8	0	62.0	106.3
Amoritization	10.0	23.3		14.4	0	9.0	0	19.9	338.9
Domestic	10.0	3.2		3.3	0	1.0	0	12.0	138.4
External	-	20.1		11.1	0	8.0	0	7.9	200.5

1/ Excludes Depreciation expenses
2/ From the National Investment Bank of Jamaica (NIBJ)
3/ Includes onlending of external loans
4/ Excludes commercially financed projects

SUMMARY ACCOUNTS OF SELECTED PUBLIC SECTOR ENTITIES 1986/1987

	AIR JAMAICA (CY)	AIRPORTS AUTHORITY (CY)	BANANA COMPANY (CY)	J.B.C. (CY)	J.C.T.C. (CY)	JAMINTEL (FY)	J.M.M. (CY)	JPSCO (CY)	J.R.C. (CY)	J.T.C. (CY)
REVENUES	493.2	31.2	127.1	38.2	1596.0	96.2	65.6	954.3	36.0	256.5
EXPENDITURES 1/	452.9	17.0	127.2	23.0	1586.0	73.0	55.0	742.4	28.0	111.3
OPERATING PROFIT/LOSS (Cash)	40.3	14.2	-.1	15.2	10.0	23.2	10.6	211.9	8.0	145.2
CAPITAL EXPENDITURE	5.5	7.0	0	0	0	33.8	0	141.9	20.3	44.3
SELECTED FINANCING ITEMS										
Domestic Loans	9.0	0	0	0	0	0	0	32.5	0	46.1
External Loans	0	0	0	0	0	0	0	77.6	8.0	24.0
Government Transfers 2/	0	0	0	0	0	0	0	0	9.7	0
Amoritization	53.3	3.2	0	6.8	0	0	2.9	71.9	9.0	93.8
Domestic	0	0	0	1.0	0	0	0	14.3	0	0
External	53.3	3.2	-	5.8	0	0	2.9	57.6	9.0	93.8

1/ Excludes depreciation expenses

2/ Includes onlending of external loans

SUMMARY ACCOUNTS OF SELECTED PUBLIC SECTOR ENTITIES 1986/1987

(Continued)

	N.H.C. (FY)	N.H.P. (FY)	N.S.C. (Cr.Y)	N.W.C. (FY)	P.C.J. (FY)	P.A. (CY)	S.I.A. (Cr.Y)	U.D.C. (CY)	TOTALS (Pgs. 1 & 2)
REVENUES	5.0	69.1		150.0	1318.0	37.0	354.8	113.9	5742.1
EXPENDITURES 1/	4.7	58.4		130.7	1238.9	15.1	301.9	101.9	5067.4
OPERATING PROFIT/LOSS (Cash)	.3	10.7		19.3	79.1	21.9	52.9	12.0	674.7
CAPITAL EXPENDITURE	0	1.2		55.0	60.0	17.3	0	86.7 3/	473.0
SELECTED FINANCING ITEMS									
Domestic Loans	13.5	22.7		0	0	1.0	0	0	124.8
External Loans	0	0		0	0	10.4	0	0	120.0
Government Transfers 2/	0	0		53.3	0	1.0	0	105.9	169.9
Amortization	12.0	16.9		14.8	0	11.0	0	17.3	312.9
Domestic	12.0	1.9		4.7	0	1.0	0	15.6	50.5
External	0	15.0		10.1	0	10.0	0	1.7	262.4

1/ Excludes Depreciation expenses

2/ Includes onlending of external loans

3/ Excludes commercially financed projects

SUMMARY ACCOUNTS OF SELECTED PUBLIC SECTOR ENTITIES 1987/1988

	AIR JAMAICA (CY)	AIRPORTS AUTHORITY (CY)	BANANA COMPANY (CY)	J.B.C. (CY)	J.C.T.C. (CY)	JAMINTEL (FY)	J.M.M. (CY)	JPSCO (CY)	J.R.C. (CY)	J.T.C. (CY)
REVENUES	517.8	45.1	288.2	42.2	1834.6	108.6	72.5	1056.6	39.0	282.5
EXPENDITURES 1/	471.9	21.1	282.2	25.4	1823.1	72.1	60.1	817.3	31.5	129.0
OPERATING PROFIT/LOSS (Cash)	45.9	24.0	6.0	16.8	11.5	36.5	12.4	239.3	7.5	153.5
CAPITAL EXPENDITURE	5.5	6.0	0	0	0	42.7	0	96.8	10.7	40.2
SELECTED FINANCING ITEMS										
Domestic Loans	9.0	0	0	0	0	0	0	5.0	0	55.0
External Loans	0	0	0	0	0	0	0	58.2	5.0	28.5
Government Transfers 2/	0	0	0	0	0	0	0	0	10.0	0
Amoritization	52.0	1.9	0	7.8	0	0	2.9	74.3	12.2	102.8
Domestic	0	0	0	1.0	0	0	0	14.3	0	0
External	52.0	1.9	-	6.8	0	0	2.9	60.0	12.2	102.8

1/ Excludes depreciation expenses

2/ Includes onlending of external loans

SUMMARY ACCOUNTS OF SELECTED PUBLIC SECTOR ENTITIES 1987/1988

(Continued)

	N.H.C. (FY)	N.H.P. (FY)	N.S.C. (Cr.Y)	N.W.C. (FY)	P.C.J. (FY)	P.A. (CY)	S.I.A. (Cr.Y)	U.D.C. (CY)	TOTALS (Pgs. 1 & 2)
REVENUES	5.6	79.5	0	165.0	1418.0	39.0	357.8	81.9	6433.9
EXPENDITURES 1/	5.2	67.2	0	144.7	1335.1	17.1	304.9	73.9	5681.8
OPERATING PROFIT/LOSS (Cash)	.4	12.3	0	20.3	82.9	21.9	52.9	8.0	752.1
CAPITAL EXPENDITURE	0	1.0	0	43.8	17.0	11.5	0	112.2 3/	387.4
SELECTED FINANCING ITEMS									
Domestic Loans	2.0	18.0	0	0	0	.5	0	0	89.5
External Loans	0	0	0	0	0	12.4	0	0	104.1
Government Transfers 2/	0	0	0	43.4	0	0	0	149.2	202.6
Amortization	14.0	13.0	0	17.0	0	11.0	0	40.8	349.7
Domestic	14.0	1.0	0	4.9	0	1.0	0	38.2	74.4
External	0	12.0	0	12.1	0	10.0	0	2.6	275.3

1/ Excludes Depreciation expenses

2/ Includes onlending of external funds

3/ Excludes commercially financed projects

MAJOR ASSUMPTIONS OF PROJECTIONS ON FINANCIAL PERFORMANCE OF THE PUBLIC ENTERPRISES

Air Jamaica: Passenger growth of 8% in 1985 and 1986 and 10% in 1987.

Banana Company: Increased exports up to 30,000 tons in 85/86 and rising exports thereafter because of the output expected from Eastern Brand Bananas.

Jamaica Commodity and Trading Co.: No subsidies on basic food or other commodities.

Jamaica Public Service Co.: Government agencies keep current in their payment and no decline in electricity usage due to the rate increase.

Jamaica Telephone Co.: Conversion of J$8 million in tax arrears to equity.

National Hotels and Properties: Only the Oceana Hotel will continue to be operated by NHP and there will be an annual increase in the net average room rate of 10.5% a year.

National Water Commission: A collection ratio of 85%, total collection of arrears incurred by Government departments over 3 years and thereafter, these payments being kept current.

Sugar Industry Authority: Sugar export sales will remain constant and no provision in forecasts to accomodate redundancy payments, etc. to the National Sugar Group.

February 27, 1985

Table 10

JAMAICA: PROJECTED EXTERNAL FINANCING OF CENTRAL GOVERNMENT, 1984/85 - 1987/88

(in millions of J$)

	Revised 1984/1985	1985/1986	1986/1987	1987/1988
Project Loans/ Suppliers' Credits	101.87	187.7	192	127.1
Donor Countries	735.1	725.3	506.7	540
U.S.A.	655.7	534	403.5	436.5
E.S.F.	(376.5)	(198.0)	(121.0)	(76.5)
C.D.B.	0	0	0	0
PL480	(140.0)	(81.0)	(90.0)	(90.0)
CCC	(139.2)	(255.0)	(192.5)	(270.0)
U.K.	23.9	28	0	0
Canada	5.1	6.4	0	0
Germany	17.9	36	18	13.5
Netherlands	8.6	20	0	0
France	23.5	55.9	40	45
Japan	.4	45	45	45
Sweden				
Oil Facility	110.9	0	0	0
S.A.L.	355.5	225	202.5	0
Commercial Banks				
Sea Bed	67.7	0	0	0
New	0	0	0	0
Refinancing	1,006.2	830.3	436.5	427.5
Commercial Banks	(353.5)	(454.0)	(436.5)	(427.5)
(Trinidad & Tobago)	(171.9)	0	0	0
(Paris Club)	(358.1)	(376.3)	0	0
(Other Non OECD Countries)	(122.7)	0	0	0
Gross Disbursements	2,377.27	1,968.3	1,337.7	1,094.5
Less Amortization	1,136.97	972	774	760
Net Disbursement	1,240.3	996.3	563.7	334.5

Note: Exchange Rate Assumption: J$4.5 = US$1.00

Source: Ministry of Finance

February 27, 1985

ANNEX I

ONGOING TECHNICAL ASSISTANCE AND PROJECTED REQUIREMENTS

Jamaica: Major On-going T.A. Programs
(US$'000)

	Project-related	Total Cost of T.A.	Financing Source	Duration	Comments
1.	Basic Skills Training	4,637	USAID		Training Courses
2.	Board Revenue Assistance	4,416	USAID		Training Courses
3.	Technical Consultations and Training Grant	13,960	USAID	-	Training Courses
4.	Administrative Staff College	61	UK	1.5 man year	Two-way exchange of academic staff
5.	Public Sector Training	165	UK		Scholarships
6.	Assistance to Administrative Staff College	22	OAS	-	-
7.	Public Enterprise Management, Financial Management, Human Resources and Organization Development	476	EDF/IBRD	3 man years	
8.	Energy Planning and Development	620	UNDP/DTCD/ USAID		Advisory services, training and equipment
9.	Energy Sector Assistance	3,887	USAID		Scholarships
10.	Forestry and Soil Conservation	508	UNDP/FAO		
11.	Agricultural Marketing Development	4,960	USAID		Scholarshiips
12.	Small Farmer Production Marketing	187	USAID		Training

Jamaica: Major On-going T.A. Programs
(US$'000)

	Project-related	Total Cost of T.A.	Financing Source	Duration	Comments
13.	Integrated Approach for Rural Development	500	FAO/HABITAT PAHO/WHO UNDP/UNESCO UNFPA/UNIDO		
14.	Consolidation of Packaging Centre and Establishment of a Plastics Centre	2,500	USAID		Training courses
15.	Industrial Co-operation Expert	170	EDF/IBRD	1 man year	
16.	Primary Health Care and Family Planning in Eight Communities		UNFPA/PAHO (Norwegian Trust Fund)		Training courses
17.	Population and Family Planning Services	669	USAID		Training courses
18.	Low Cost Shelter Development	985	USAID		Training courses
19.	Health Management Improvement	2,894	USAID		Training courses
20.	Development of the Engineering Department at CAST	457	UNDP/UNESCO		
21.	School Mapping	35	UNESCO/IDRC		Training courses
22.	Voluntary Sector Development	3,000	USAID		
23.	Partners Voluntary Technical Assistance Services	175	USAID		Training courses

Jamaica: Major On-going T.A. Programs
(US$'000)

	Project-related	Total Cost of T.A.	Financing Source	Duration	Comments
24.	Rural Services Project for Special Children	5	USAID		Training
25.	Technical Assistance Loan	6,100	IBRD		Short- and long-term consultants equipment
26.	Integration of Demographic Variables into Development Planning	142	UNFPA	1 man year	United Nations Volunteers for 24 m/m each
27.	Supply of Depo-Provera to NFPB	230	UNFPA		
28.	FLE for Youth in Duhaney Park Area	250	UNFPA		

TECHNICAL ASSISTANCE REQUIREMENTS - (Manpower)
(not related to project)

Agency	Position	Duration (man-months)
1. Ministry of Agriculture	1 System Expert	
	1 Soil Survey/Land Evaluation	
	1 Natural Resource Management	
	1 Agri-Economist	
	1 Audio-Visual Expert	
	1 Small Stock Specialist (goat and sheep)	
	1 Gear Technology Expert	3
	1 Pelagic Resources Expert	12
	1 Fisheries Trainer	6
	1 Legumes Specialist	
	1 Cereals (especially sorghum and rice)	
	1 Root Crops (cassava and Irish potato)	
	1 Tree Crop (cocoa, mango and avocado)	
	1 Horticulture Expert	
	1 Oil Seeds - sunflower and soya Expert	
	1 Spicer (ginger and pimento Expert)	
	1 Medical Plants Expert	
	1 Artificial Insemination Specialist	
	1 Embryo Transplant Expert	
	1 Pasture Management Expert	
	1 Agricultural Researcher	
	1 Rural Energy Development	
	2 Conveyance Lawyers	24
	1 Cadastral Survey Expert	24
	1 Senior Lands Surveyor	24
	1 Hydrographic Expert	24
	1 Titles Registrar Lawyer	12
	1 Fleet Management/Valuation Engineer	12
	2 Veterinarians/Meat Inspectors	
	2 Hillside/Watershed Management	24
	1 Organization and Methods Expert	6
	1 Expert Technical Information	
	1 Food Technology Specialist	
	1 Environmental Management Special	
	1 Research and Development Expert (non-food products)	

TECHNICAL ASSISTANCE REQUIREMENTS - (Manpower)
(not related to project)

Agency	Position	Duration (man-months)
2. Ministry of Construction (Works)	1 Chief Traffic Engineer	24
	2 Traffic Engineers	24
	1 Chief Quantity Surveyor	24
	1 Soils and Material Engineer	24
	1 Senior Engineer (Bridges)	24
	1 Hydraulic Engineer	12
	1 Chief Planning Engineer	24
	1 Chief Engineer (Major Projects)	24
	1 Transportation Engineer	24
	1 Transport Economist	24
	1 Highway Planning Engineer	24
	1 Highway Engineer	24
	1 Accountant (Hire Fund)	
	1 Inventory Control Manager	
	1 System Analyst Specialist	
3. Ministry of Mining	1 Engineering Geologist	24
	2 Chemical Engineers (bio-energy projects)	36
	1 Marine Engineer	36
4. Department of Statistics	1 Senior Statistician Analyst/Programmer	24
	Statisticians	24
	1 Senior Economic Statistician	24
	1 Methodologist	
5. National Computer Center	1 Systems Analyst (software systems) familiar IBM 43/41	18
	1 Systems Analyst (systems, programming and operations) familiar IBM 43/41	18
	1 Systems Analyst Trainer	18
6. Jamaica Bureau of Standards	1 Legal Metrologist	12
	1 Quality Control Officer	12
	1 Engineering Metrologist	12

TECHNICAL ASSISTANCE REQUIREMENTS - (Manpower)
(not related to project)

Agency	Position	Duration (man-months)
7. National Investment Bank of Jamaica	1 Management Consulting	24
	1 Senior Management Consulting Adviser	24
	1 Adviser, Investment Promotions Section	24
8. Jamaica National Investment Promotions Ltd.	1 Marketing specialist	24
9. Jamaica Public Service Company Ltd.	1 Power Station Specialist	12
	1 Chief Engineer-Systems Planning	24
	1 Accounting Systems/Financial Controller	12
	1 Refinery Systems Analyst	12
	1 Systems and Procedures Analyst	12
	1 Training Manager	24
	1 Internal Audit Specialist	24
10. Planning Institute of Jamaica	1 Aid Coordinator/Manager	24
11. National Water Commission	1 Sanitary Engineer	18
	2 Electrical/Mechanical Engineers	6
	1 Economist/Financial Analyst	21
	1 Industrial Expert	3
	1 Data Base Management	3
	1 Manpower Specialist	6
	1 Specialist in Evaluation, Planning, Research and Development	12
	1 Water Planner	18
12. Project Analysis and Monitoring Company Ltd.	1 Mechanical and Electrical Engineer/Adviser	36
	1 Civil Engineer/Adviser	36
	1 Environmental Engineer/Adviser	36