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**Dates:** 9/1/1982 – 12/1/1982

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**ISAD Reference Code:** WB IBRD/IDA EXC-03-4528S

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*Mr. Murphy*

*File*

# OFFICE MEMORANDUM

TO: Members of the Operations Policy Subcommittee

DATE: November 18, 1982

FROM: Sidney E. Chernick, Acting Director, CPD

SUBJECT: The Joint UNDP/World Bank Energy Sector Assessment Program Paper

The Operations Policy Subcommittee will meet on Wednesday, December 15 at 9:30 a.m. in Room E-1208 to consider the attached paper on the Joint UNDP/World Bank Energy Sector Assessment Program prepared by the Energy Department.

Attachment

cc: Ms. Pratt  
Mr. Bharier

THE JOINT UNDP/WORLD BANK ENERGY SECTOR ASSESSMENT PROGRAM

November 11, 1982

Energy Department

TABLE OF CONTENTS

|                                  | <u>Page</u> |
|----------------------------------|-------------|
| 1. INTRODUCTION AND SUMMARY..... | 1           |
| 2. THE BACKGROUND.....           | 2           |
| 3. THE OBJECTIVES.....           | 3           |
| 4. THE PROCESS.....              | 5           |
| 5. THE INPUTS.....               | 9           |
| 6. THE REPORTS.....              | 10          |
| 7. THE FOLLOW-UP.....            | 13          |

ANNEXES (available on request)

1. MEMO OF MR. STERN TO REGIONAL VICE PRESIDENTS  
JUNE 11, 1981
2. GUIDELINES ON ENERGY DATA

## 1. INTRODUCTION AND SUMMARY

In November 1980 the Bank launched a full-scale program of country energy assessments, financed jointly by UNDP and the Bank's administrative budget. These assessments are designed to provide a diagnosis of the major energy problems faced by the developing countries and an evaluation of the options for solving these problems. They analyse, in the macro-economic context, the need for changes in pricing, institutional and other policies for encouraging greater production from indigenous energy sources and greater efficiency in the use of energy; they assess the investment priorities in the energy sector; and they provide a framework for multilateral and bilateral technical assistance in the sector. The reports, by focussing selectively and pragmatically on major issues rather than providing a comprehensive overview of the sector, aim to help decision-makers in the developing countries address the more pressing energy problems confronting them.

During the past 2 years, eleven assessments financed under the joint UNDP/World Bank Program have been completed, a further 13 are in various stages of preparation and 13 are planned to start in the next year (see Table 1); including seven assessments carried out in the year before the formal program began, some 44 countries will therefore have been covered by the end of 1983. The costs of these assessments have ranged from \$30,000 to \$250,000 (depending on the size of the country and the complexity of its energy sector) and the reports are being submitted to governments about eight months after the field missions. Each mission, which normally includes four to eight participants and stays in the country for up to one month, responds to a specific request from the government for advice on the energy sector and follows agreement with the government on the priority issues to be tackled. The Bank, with the help of the UNDP, has developed a staff capability (currently 24 professional and assistant staff) for this purpose and can also call on a growing group of consultant technical specialists. It is rapidly building up cross-country and multidisciplinary experience in the Energy Assessments Division, which also calls on experience and information from other relevant parts of the Bank.

The response to the program has been strong and the number of requests from governments is currently well in excess of the capability to meet this demand. There is also growing evidence that governments are making extensive use of the advice provided by the assessments. Other sources of external assistance, both bilateral and multilateral, have generally supported the assessments program, and several have either contributed to the UNDP Energy Account for this purpose (or indicated a willingness to do so) or have collaborated by providing staff or consultants for the field missions. In general, the aid agencies see the assessment reports as a vehicle for coordinating and increasing the effectiveness of their financial and technical inputs to the energy sector and the assessment report has begun to be used as a basic document for this purpose at aid coordination meetings. The Bank has recently been asked to accelerate the assessments program and, together with UNDP, is considering this.

The assessments also provide to the Bank itself the necessary background and analysis from which to develop an energy lending strategy and follow-up activities in the energy producing and energy using sectors. This process which eventually should cover all countries where the Bank maintains an active lending program in several of the energy subsectors, should be strengthened and systematized.

This paper evaluates the program so far and in doing so highlights the evolving nature of the energy assessment process, the multifarious nature of the inputs required, the diverse impact of the assessment missions and their reports, and the urgency of ensuring that the initial impact of this program is not dissipated through lack of follow-up.

Table 1  
The Joint UNDP/World Bank Energy Assessment Program

| <u>Assessments Completed</u><br><u>Since 11/80 1/</u> | <u>Assessments in</u><br><u>Progress</u> | <u>Assessments to</u><br><u>To Start in the Next</u><br><u>Year 2/</u> |
|---|--|--|
| Bangladesh  | Bolivia                                  | Benin  |
| Burundi   | Fiji                                     | Botswana   |
| Haiti   | Morocco                                  | Cameroon   |
| Indonesia   | Nepal                                    | Colombia   |
| Kenya   | Niger                                    | Ecuador  |
| Malawi  | Nigeria                                  | Ethiopia   |
| Mauritius   | Peru                                     | Mauritania   |
| Papua New Guinea                                      | Senegal                                  | Portugal   |
| Rwanda  | Solomons                                 | Seychelles   |
| Sri Lanka   | Sudan                                    | Somalia  |
| Zimbabwe  | Turkey                                   | Tanzania   |
|   | Uganda                                   | Togo   |
|   | Zambia                                   | Yemen, A.R.  |

1/ Assessments carried out by the same staff before the start of the Joint UNDP/World Bank program were Brazil (green cover), Caribbean (grey), Ghana (green), Pakistan (grey), Panama (grey), Philippines (grey) and Thailand (brown).

2/ Provisional.

## 2. THE BACKGROUND

By the end of the 1970s most developing countries found that they had to deal with new and massive problems of adjustment to higher world oil prices. However, decisions on the substitution of imported oil by cheaper indigenous resources or other types of imported fuels were by no means easy to make. There were great uncertainties about domestic energy resource potential, about the types of technologies which could be

adopted for the production, distribution and use of different fuels, about the availability of finance for energy resource development and the time required to prepare and implement appropriate projects.

Moreover, in most countries energy sector management (if it existed at all) was in a very rudimentary state. Basic information, for example, on demand patterns and growth, was poor, policy and investment analysis (particularly in the public sector) was weak and there was little policy interaction between the various users and producers of different types of energy. While many countries clearly had to improve the efficiency of energy use there was little experience or technical capability in this area.

The international community appeared to be of little assistance to the developing countries, and where country energy policy studies were started they were either ill-focussed (e.g., on expensive and inappropriate modelling exercises) or were designed for other purposes (e.g., the US DOE program which was financed under the program to stop nuclear proliferation). In the Bank itself, there was relatively limited knowledge of many of the energy subsectors, while energy sector reviews had been carried out on only one or two countries a year in the last part of the 1970s. The energy staff of the Bank amounted to only one regular staff fully committed to this activity in 1975 rising to six in 1979, all in EGY. By 1980, only two Regions were devoting one staff full-time to energy sector work--both of these have since transferred to the Energy Assessments Division.

In January 1979 the Board approved a recommendation to assist some 60 oil importing developing countries in devising national energy plans; this decision was repeated in the 1980 Board paper (later published in August 1980). In the meanwhile budget lags and recruitment problems delayed elaboration and implementation of the program. The present concept of a multi-disciplinary operating division devoted to this single technical-assistance-type task (to which two more EGY staff were reassigned), the selective approach to issues, preparation and review processes; and the criteria for selecting countries were all developed between mid and late 1980. The technical assistance purpose of the program led to the decision to ask UNDP for cofinancing, which was obtained in the summer of 1980, effective from November, the starting date of the current program. Management review and RVP discussions of the planning, programming and management of Energy Assessments, and other energy sector work were concluded with the issuance by Mr. Stern of a memorandum to the RVPs on the subject, Annex 1.

### 3. THE OBJECTIVES

The long-term objective of the program was to assist countries in establishing an indigenous energy planning and management capability -- one which eventually could prepare and supervise projects both for the development of indigenous energy resources and for the efficient use of energy as well as provide the essential coordination role between the various energy using and energy producing subsectors.



The immediate objectives, however, were the following; to help the selected countries analyze the major issues facing their energy sector and evaluate the options for dealing with these issues; to provide a framework for coordinating external technical and financial assistance for energy; and to develop a rational basis for Bank Group (including IFC) and UNDP activities in a variety of energy and energy-related sectors and subsectors.

The vehicle for this process was to be the Energy Assessment Report which would 1/

- (a) review the existing and potential energy supply situation and the institutional, policy and planning capability in the energy sector, identifying the major energy issues and highlighting significant gaps in energy policies, programs and institutions;
- (b) identify the most appropriate energy subsectors to be developed;
- (c) assess existing and planned energy assistance activities by multilateral and bilateral agencies;
- (d) analyze manpower and training needs in the energy sector; and,
- (e) identify additional financial and technical assistance needed in the energy sector.

It was felt that the management and implementation of the program should be assigned to a multidisciplinary operating division to:

- (a) facilitate programming and avoid the types of losses experienced in Bank sector work because of conflicting or competing policy and project work;
- (b) provide central management with clear accountability for the quality and timeliness of the work;
- (c) enable a critical mass of the various skills to be assembled;
- (d) enable recruitment programs to be based on the team concept rather than single "know-all" individuals;
- (e) encourage rapid "cross-fertilization" and interdisciplinary training of technical, economy and country experience within the team.

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1/ UNDP Interregional Project Document, INT/80/009/A101/42.

#### 4. THE PROCESS

The energy assessment process as currently practiced has the following 10 stages designed to ensure thorough preparation and coordination of inputs, including those of other agencies, multilateral and bilateral, and an effective review process involving, within the Bank, all concerned line managers and expert staff:

- (a) Country selection.
- (b) Preparation of a desk study.
- (c) Reconnaissance mission.
- (d) Pre-mission issues paper.
- (e) Field mission.
- (f) Post-mission issues paper.
- (g) Preparation of the assessment report.
- (h) Discussion of report with government.
- (i) Publication and dissemination of report.
- (j) Discussion of published report with donors, sometimes in an aid coordination meeting.

The purpose and scope of each of the processing stages are discussed below.

##### (a) Country Selection

The energy assessment work responds to a request from the government. Since the UNDP has received far more requests than the Bank's current capacity to handle them, the following criteria have been developed for selecting the countries to be covered by the Bank/UNDP program each year:

- (a) Global significance -- i.e., where the potential impact on the world energy supply and demand balance is likely to be great;
- (b) Severe energy-related problems -- i.e., where the country's development is seriously constrained by its energy situation;
- (c) Potential for results -- i.e., where governments are committed to resolving their energy problems and have the capacity to introduce institutional, structural and policy changes; and,

- (d) Inability to help themselves -- i.e, where governments cannot by themselves mobilize funds or expertise to implement an authoritative energy assessment.

Applying these criteria a work program for each year is arrived at in consultation with the Regional programs and projects departments.

(b) Desk Study

The purpose of this study is to collect relevant information on a country's energy sector and make a very preliminary identification of the major issues in the sector so as to focus further data-gathering and analytical efforts. At this stage, the Energy Assessments Division initiates contacts with other staff in the Bank involved in the country's energy sector and attempts to interpret information that has been provided to them by operational staff. The work is done primarily by a research assistant and generally takes no longer than four weeks to complete. Experience shows that the most efficient format is one which provides notes and tables rather than a formal text. Because it is "incomplete" and non-analytic, the desk study is normally not circulated to anyone other than mission members and, when appropriate, other staff at the working level.

(c) Reconnaissance Mission

Reconnaissance missions consist of the person expected to lead the full mission and someone already familiar with the country, and visit the country for 3-4 days. The purposes are to: familiarize officials with the energy assessment concept and process; further ascertain country commitment to the success of and the follow up to the exercise; select priority issues and clarify the scope and depth of analysis needed; identify counterpart staff and initiate data gathering preparation; identify ongoing or planned activities from other sources; and set the timing for the full mission. Where applicable or feasible, participation by others in the international community is considered from this stage onwards. This is more systematically the case with the Asian Development Bank which is involved in briefings and debriefings on Energy Assessments in its developing member countries and is invited to participate in missions. This approach will be extended to other aid agencies to the extent that it is manageable.

(d) Pre-mission Issues Paper

An issues paper is normally circulated at least four weeks before the proposed departure of the assessment mission; it provides a brief account of the background to the mission, a statement of the energy problems faced by the country, proposals regarding the mission's specific objectives, selection of issues, timing and staffing and the schedule for the preparation of the report. The issues paper is circulated to all relevant departments in the Bank and IFC and others who can contribute to

its discussion. The paper is discussed at a meeting normally chaired by the Country Programs Department (Director or Division Chief) which distributes brief minutes of the proceedings.

The circulation of a pre-mission issues paper ensures that managers and staff in the various parts of the Bank Group concerned with activities in the energy sector are fully briefed on the proposed scope of the assessment mission. The discussion helps to ensure continuity and consistency of relations with the country, to identify gaps in the background information available to the mission, to determine the need for further desk or mission contributions by other parts of the Bank and to facilitate staffing of the mission.

(e) Mission

The mission usually needs to stay 3-4 weeks in the field and for an "average" country consists of 4-8 persons, including consultants. (At least one and usually two mission members are from the Energy Assessments Division). Large missions (e.g., Turkey with 16 members) have proved cumbersome; smaller missions have proved satisfactory in small countries (e.g., Mauritius with two staff in the field plus two assistants at headquarters). Specialist staff or consultants, e.g., on petroleum contract legislation, may usefully visit the country for a few days to deal with very specific problems which were clearly identified during reconnaissance. It is expected that technical specialists participating in the assessment missions will link up with related work being done in parallel, e.g., on utilization of gas, project appraisals, etc. Increasingly, missions to large countries are planned in building blocks (such as Nigeria which initially concentrates on gas, and will focus later on other issues) while linkages with ongoing subsector or project work are being planned to dovetail more effectively with the assessment. In some cases the mission has remained in the field at the request of the government to prepare an aide memoire; this has proved useful, especially where the Bank has a resident representative in the country, but is not a universal practice. The Bangladesh aide memoire is an example.

(f) Post-mission Issues Paper

In addition to a very brief back-to-office report, which need not do more than state how the mission went in the field and provide a list of people met, the mission leader normally circulates for discussion a post-mission issues paper. The primary purpose of the post-mission issues paper, which is issued about one month after the mission's return, is to indicate to others in the Bank the approach that the mission is adopting on major issues, to ensure that preliminary findings of relevance to other Bank operations are made known as early as possible, and to note areas where further analysis is required.

This paper is particularly important when the assessment mission is to be closely followed by SAL, economic or project missions to the country, or when the assessment mission calls into question findings of

previous field missions, such as an appraisal mission in one of the energy subsectors. In some cases (e.g., Sri Lanka and Zimbabwe) the Programs Division has used the paper as a basis for providing an early indication to government of some of the emerging recommendations, particularly when major decisions on investment or technical assistance are in the offing. The discussion of the post-mission issues paper is usually chaired by the Programs Department, which distributes brief minutes of the proceedings. As with the pre-mission issues meeting, staff from all concerned programs and projects divisions in the Bank and IFC are invited to attend.

(g) The Draft Report

As with Bank project appraisal reports, the Energy Assessment Report goes through various covers -- white (Energy Assessments Division clearance), yellow (Energy Department clearance) and green (Regional clearance for submission to the government) -- to ensure that the final draft will have taken into consideration all available points of view and expertise. The green cover report is issued under World Bank/UNDP logos and marked confidential.

(h) Discussion with Government

The green cover report is sent to the country for review by the government and is then usually discussed in the country by the mission leader accompanied, preferably, by the UNDP Resident Representative and a senior member of the Bank's country programs staff, over a period of 2-3 days. There are two major objectives for this discussion; first to obtain the government's views on the findings of the report and to consider suggested amendments before the report is issued in its final (blue) cover; second, to help the government draw up an agenda for action in the energy sector, to determine what external assistance the government may need, and to indicate the type of financial and technical assistance that may be available from the Bank and UNDP. Ideally, at the end of this discussion, there is agreement between the government and Bank/UNDP staff on the program to be followed to manage the energy sector more efficiently and steps to be taken to mobilize whatever external assistance is deemed necessary. Of necessity, there will be a time lag between green cover discussions and the elaboration of the government's agenda. How to help make that process effective is given special attention in each case. Particular care is taken to avoid injecting at this point issues of conditionality of lending as they might constrain the review process. Such issues should be addressed separately and the strengthening of internal procedures for dealing with them is considered later in this note.

(i) Publication of Report

A new (blue) cover has been designed for Energy Assessment Reports, reflecting the fact that they are products of the joint UNDP/World Bank program. The reports are distributed to official agencies dealing with energy to assist in mobilizing support needed for

prompt implementation of the recommended program of action in the country. Wider distribution will be considered at a later stage for future reports but only after the program is further advanced and the governments concerned have been consulted.

(j) Aid-Consortium Meeting

Since the assessment report provides a framework for establishing priorities for further technical and financial assistance to the energy sector, some governments (e.g. Bangladesh and Indonesia) have asked that the report be discussed at Aid Coordination meetings. Where no formal coordination mechanism exists, governments and donors have found the reports very effective in facilitating discussions on future assistance to the energy sector. Where meetings are needed, they will be arranged ad hoc to suit the wishes of the country concerned in consultation with the Bank's Region and UNDP.

Continuation of the Process

It should be noted that the energy assessment report provides a fairly quick diagnosis of a selection of major issues at a given point in time and is only one of various energy-related activities which may be going on in a country. Significant changes in the world energy supply and demand situation, or in the situation facing individual countries (such as the discovery of a new energy resource), and the need to move in steps to a more comprehensive approach and fuller country participation will require further diagnostic efforts. Eventually, assessments should in all cases become a full-fledged statement of the country's energy strategy including resource mobilization requirements to implement it and should, essentially, be a government rather than an outside product. Periodicity of the assessment will vary widely according to the country situation, and the ability to manage the sector. No major program is proposed in this regard. Instead, repeat assessments will be considered, though scheduled only where strong country demand and commitment of staff to build up for the next review are assured. How to support this effort is considered as part of the energy management assistance scheme tentatively outlined later in this note.

5. THE INPUTS

The cost of each assessment is related to the size and complexity of the country. On the basis of experience in 1981, a small country with a limited indigenous energy base (e.g., Burundi, Mauritius) requires about 30 weeks of staff and consultant time, an average country (e.g. Kenya, Zimbabwe) 80 weeks and a large, complex country (e.g. Turkey, Indonesia) up to 150 weeks. Variations in total costs are somewhat wider; these costs (including travel and support staff costs) range from about \$30,000 to \$250,000.

The money costs are met from two sources: the UNDP Energy Account 1/ (which has currently allocated \$3.4 million over four years, 1981-84) and the Bank's administrative budget. The basic managerial, professional, assistant and support staff are located in the Energy Assessments Division of the Energy Department, which currently has the equivalent of 17 full-time professional staff (positions filled or committed) and seven assistant level staff plus a number of consultants on retainers. This basic staff is supported by other energy projects or advisory staff from EGY and by staff from other departments, including programs economists (in almost all cases) to provide the macro-economic perspective, and power, coal, refinery or fuelwood experts. Further support is provided by the Regional Energy Divisions which often prepare power subsector reports and other documents to be used by energy assessment staff. The active participation of operational staff in the Region, especially in the resident missions and programs divisions, has greatly assisted the process of translating the recommendations of the energy assessment missions into effective changes in policies and institutions.

As with other agencies which have attempted to enter the field of energy assessments, the Bank has found it extremely difficult to locate and hire staff with the appropriate mix of skills and experience. There is, in effect, no such species as the "energy assessor" or the "energy planner"; therefore, the Energy Department, in its recruitment efforts in this area, has sought to build up a "team" using the Assessments Division as a "melting pot" of skills, and the assessments themselves as a means of rapidly developing experience and common standards. The professional staff of the Energy Assessments Division have widely differing backgrounds; indeed, no two have the same type of background and education, while all have practical experience in two or more disciplines (economics, finance, coal, refineries, energy management, geology, etc.) 2/. Where Bank staff are unavailable, or where special expertise is required, outside consultants are hired; for recent missions outside experts have been used to study energy efficiency and conservation, rural energy, energy institutions and training, gas distribution and gas market analysis.

Given the close interaction between the energy sector and other aspects of country economic management, assessment reports have benefited greatly by extensive review, particularly by senior management in the Regions. The Energy Department's advisory staff, which operate from separate units, have also contributed to the review process at the staff, division and department level.

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1/ The use of resources from the Energy Assessment Program is in addition to the allocation under the country's Indicative Planning Figure from UNDP.

2/ And most are able to work in at least two relevant languages.

## 6. THE REPORTS

### Coverage

The coverage of reports recently completed, or available in draft, is selective, reflecting inter alia, the importance of particular issues in the country concerned and the availability of information. Generally, as originally envisaged, they cover the following aspects:

- (i) the evolution of energy demand for commercial and non-commercial energy;
- (ii) the present and potential supply of commercial and non-commercial energy;
- (iii) present and forecasted energy balance;
- (iv) energy prices, taxes and subsidies;
- (v) energy sector organization and institutions;
- (vi) energy conservation and demand management; and
- (vii) the investment and technical assistance requirements of the energy sector.

### Structure

The nature of the major energy issues faced in the country and the priorities allocated by the mission among its various recommendations to deal with these issues have determined to a large extent the structure of each report. This is inevitable given the commitment to focus on practical solutions to pressing problems. For some countries (e.g., Burundi, Malawi), where there are generally strong associations of specific fuels with specific end-users, the reports deal with each fuel in turn. For countries (e.g. Kenya, Mauritius and Zimbabwe) where solutions to energy problems lie in the need to replace expensive oil imports by cheaper indigenous (or sometimes imported) fuels, the emphasis is placed on inter-fuel substitution prospects. Where institutions (e.g., in Turkey) or price distortions (e.g., in Indonesia) appear to create the major problems, the reports place greatest emphasis on analysis supporting recommendations in these areas. And where a country's energy problem is related to one major resource (e.g., fuelwood in Haiti) the structure of the report reflects this.

### Length

It was originally envisaged that the assessment reports would usually be 40-80 pages long, excluding statistical and other annexes. This has been the case, although a few reports are slightly shorter (Mauritius) or longer (Indonesia). In every case a summary chapter of 5-15 pages is included.



### Data

There has been considerable variation in the scope and presentation of data in energy assessment reports so far. This experimentation has been necessary as the availability and reliability of data has varied across countries and there have been no standard conventions on data presentation that are generally accepted in the energy sector. On the basis of the experience that has been gained, it is possible to define some guidelines for the presentation of energy data. (Annex 2). These guidelines are designed to eliminate the multiplicity of conversion ratios and formats for energy balance tables that may cause confusion in the interpretation of the data.

### Recommendations

In general, the recommendations in the reports relate to the following broad areas:

- (a) exploration and development of indigenous energy resources to substitute for oil;
- (b) structure of energy prices and the fiscal contribution of the energy sector;
- (c) efficient use of energy;
- (d) the investment programs in the energy sector; and
- (e) institutional capacity for planning and managing the energy sector.

In most countries it has emerged that a single major issue overshadows many of the others. In Indonesia, for example, it was noted that unless the subsidy on kerosene could be removed many of the other energy problems could not be resolved; in Haiti, a massive reforestation program could alleviate problems in agriculture and transport as well as energy; in Zimbabwe, many decisions rest on the viability or otherwise of reopening a mothballed refinery; in Sri Lanka, the priority is a broad-based, effective energy conservation program; in Mauritius, the more efficient use of bagasse for power generation could dramatically reduce the oil import bill. But even if the importance of the major issue had been clearly recognized by the government concerned, there was often insufficient commitment, administrative competence or financial resources devoted to deal fully with it. The assessment process has generally served to strengthen the first of these and suggest ways of improving the second and third.

In most countries also it has become apparent that there is a lack of integration between the policies and programs of the energy sector and those of other sectors. This is mainly the result of institutional fragmentation in an area where decisions are now closely inter-related.

The assessment reports' recommendations on national energy planning institutions have varied widely in accordance with the capabilities of existing institutions in the country. In Panama, for example, it was recommended that energy planning be undertaken under IHRE, the electricity authority, in Indonesia by an inter-ministerial commission supported by a Secretariat, in Mauritius by an energy planning unit in the Ministry of Economic Planning and Development, and in Kenya by a strengthened Ministry of Energy. In Burundi and Rwanda it was felt that emphasis should be placed on sub-sector planning and policies rather than on overall energy planning.

As the assessment program has evolved it has become clear that the efforts required to develop a diagnostic approach in the energy sector had been underestimated in some areas. The largest of these areas is rural energy which includes fuelwood and charcoal as well as non-biomass renewables such as solar and wind power; while this has been discussed briefly in all the assessment reports, it was not until the work on the Bangladesh mission that the real magnitude of the effort required was realized <sup>1/</sup>. A second area is energy conservation; much of the assessment's contributions to this problem have focussed on specific industries and/or general energy pricing policies, whereas it is now apparent that much more work is required on, for example, loss reduction in electric power, energy savings in buildings and transport and energy audit programs for small industry. A third area is the analysis of the energy investment program; each report develops priorities for investment in the energy sector but so far has not quantified the contribution of each investment to the overall energy problem. A fourth area, advising on resource mobilization, will of necessity be left for the more distant future. A fifth area which has been difficult to handle adequately has been the assessment of training needs in the energy sector and the articulation of an appropriate strategy for ensuring that the necessary skills are available to manage the sector and operate modern equipment used in the development and use of indigenous energy resources. As the program progresses more emphasis will be given to these areas (particularly the first three) supported as necessary by further analytical work.

## 7. THE FOLLOW-UP

From the start of the energy assessment program it has been obvious that mechanisms would have to be developed to ensure that the recommendations of the reports are followed up. However, full consideration of these mechanisms was postponed until it has been demonstrated that a satisfactory process had been established for the preparation of energy assessment reports, that the reports were timely and well-focused on priority issues and that they made practical recommendations for further action in the energy sector.

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<sup>1/</sup> Together with the Bangladesh report is a companion volume on rural energy issues and options.

Our experience in the past few months is that the governments in countries that have had energy assessments have used these reports to clarify their sector strategy and prepare solutions to major problems. Most have asked for the Bank's continued assistance in pursuing these solutions. Donor agencies have also announced that they intend to use the reports to define priorities for their energy sector activities in the countries concerned and have demonstrated a willingness to contribute resources to implement specific investment or technical assistance projects.

Within the Bank, the process of reviewing the issues papers and draft reports has provided a very useful forum for the concerned departments (and IFC) to discuss their activities in the sector, although there is still considerable scope for improvement in coordination, definition of priorities and the ability to respond promptly to government requests for financial or technical assistance.

What is needed is a process by which

- (a) governments can receive the necessary assistance to finance and manage the implementation of actions recommended by the assessment report including pre-investment and investment projects, pricing and policy decisions, studies of specific issues, and technical assistance for energy sector management; and
- (b) important sector policy issues can be kept alive in the Bank and the dialogue with the country enhanced in the context of the Bank's approach to the country's development strategy; but
- (c) the energy assessment activities can remain an independent product of the Joint UNDP/World Bank program and not be linked to conditions of Bank projects.

The following paragraphs outline such a process.

#### In-Country Follow-Up

In preparation for a discussion of the green-cover assessment report with the government, the Energy Assessments Division will prepare an agenda of major follow-up actions. This agenda will be discussed within the Bank and the UNDP prior to the departure of the mission to discuss the report. During the discussions with the government, the mission will seek to clarify which items on the agenda the government has agreed to act on and for which external financial or technical assistance will be sought.

The extent to which the Bank or UNDP will be involved in such activities will depend mainly on the capacity of the country to manage its energy sector and coordinate external assistance. If the government desires, the assessment process will be extended to:

- (a) help define the specifics of the technical assistance and pre-investment activities, including, e.g., the objectives, work plan and required inputs for both the government and external contributions, in a format the government can use in discussion with official bilateral and multilateral financing agencies or with interested private investors;
- (b) help the government identify "sponsors" (including the Bank) who may be interested in taking up each of the follow-up activities identified. This can include participating in meetings of aid consultative groups or UNDP Round Tables for the least developed countries, arranging special meetings or seeking financing through bilateral discussions with individual financing agencies;
- (c) assist the government in reviewing proposals from external assistance agencies for the energy sector, and monitoring the progress of such assistance;
- (d) assist the government in improving its capacity for sector management.

The responsibility for this category of follow-up actions will primarily be that of the Energy Assessments Division since these actions basically require the same type of multidisciplinary expertise as the assessments themselves and since there is a clear advantage in preserving continuity of personnel in the process.

#### Bank Strategy

A country Energy Program Paper should be prepared to help coordinate country energy sector activities in the Bank.<sup>1/</sup> This paper, would be a brief (1-10 pages) free-standing statement of the Bank's program of policy analysis and lending, designed to articulate lending priorities and conditions. It will be particularly helpful as a brief in discussions between the Bank and Government in those countries where there is lending in more than one energy subsector or where energy issues are likely to materialize in structural adjustment programs.

The Energy Program Paper would in effect, be a contribution to, and strengthening of, the CPP process. It would:

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<sup>1/</sup> An Energy Program Paper might also be prepared in some countries, where, although an assessment has not been carried out sufficient information exists on the energy sector (e.g. India). This will usually be required where lending is proposed in several energy subsectors.

- (a) Sketch the country's energy sector strategy and options.
- (b) Outline the current program of investments and studies, noting the involvement of external agencies;
- (c) Identify issues in the investment program and framework of policies and institutions and indicate actions that the government is taking to resolve issues;
- (d) Itemize the areas (financial, technical assistance) where external assistance to the government is needed, noting the plans of the government to seek such assistance and the response to other bilateral and multilateral financing agencies; and,
- (e) Clarify the role of the Bank in the energy sector, including
  - (i) subsector priorities for Bank lending within the energy sector (i.e., the allocation of the limited funds available for energy lending);
  - (ii) issues to be pursued in the Bank/government dialogue, including those of conditionality and how they would be pursued (i.e. so Bank doesn't speak with different voices in different sub-sectors);
  - (iii) the scope for co-financing and the means of mobilizing it;
  - (iv) the Bank's potential contribution to technical assistance and the preparation of small investment projects for bilateral financing;
  - (v) the program of further sector and subsector work in energy; and
  - (vi) staffing matters, including training programs for staff allocated to energy work from other activities, planning of staff exchange arrangements, etc.

The primary responsibility for the management of Energy Program Papers, which would be an integral part of the Country Economic and Sector Work Program, will be with the Country Programs Division Chief, in keeping with his/her lead responsibility for lending strategy, conditionality and programming of sector work. Guidelines for the process of Management approval of the Energy Program Papers will be circulated later.

Energy Program Papers should eventually be prepared at regular intervals. Clear criteria for selecting the initially limited group of countries for which such paper would be prepared need to be defined and the selection and timing should be agreed between the Regions and EGY. The main factors to be taken into account, besides the diversity of the energy lending program in the country, should include the importance and complexity of policy, cofinancing and conditionality issues involved. After the first group of papers has been produced, their costs and benefits would be evaluated before a decision is taken on widening the process to cover more countries.

CONFIDENTIAL

TO: Members of the Managing Committee  
FROM: Ernest Stern, SVP, Operations *ES*  
SUBJECT: Increasing Resource Flows

DATE: November 12, 1982

If we agree that the dilemma I described at our breakfast meeting is broadly stated correct, namely, that developing countries are experiencing increasing difficulty in obtaining the necessary external capital while we are experiencing difficulty in implementing a growing lending program for FY83 and FY84, then we should consider what actions we could take to bridge this gap. As a basis for an initial discussion, I list below some approaches. I realize all of them will be controversial with the Board and several of them will have an impact on the financial side because they involve more rapid disbursements. Nonetheless, we might explore whether any or all of these approaches should be analyzed in more detail, and if we wish to pursue them how best we might approach the Board:

- Increased Emphasis on Maintenance Projects. In a number of countries investment programs are being cut back which leads to a dearth of new investment projects. At the same time budgetary expenditures are being reduced which leads to a cut-back of maintenance activities in the public sector; in the private sector maintenance activities are constrained by shortages of foreign exchange and reduced profits. It would be possible to increase our emphasis on maintenance projects, particularly in infrastructure and to develop for FY84 a larger volume of such projects, in roads, telecommunications, railways and possibly other areas.
- Increased Emphasis on Export Development Projects. We have, of course, financed many projects which make an important contribution to growth of exports in general. But in the last few years we have also developed an approach which focusses an approach which focusses more specifically more specifically on giving exporters access to the foreign exchange needed for production with repayment within 180 days to one year. Such an export development fund is now in place in Jamaica, it is being negotiated for Zimbabwe and it is in the early stages for Costa Rica. In a sense, it is providing non-project financing but it has not been described as such because it is explicitly focussed on a specific target group and the amounts involved have been small. There is conditionality associated with this lending but nonetheless there could be room for expansion. Such funds can help to avoid the downward cycle of shortages of foreign exchange leading to reduced supplies of inputs for export industries which then further reduces foreign exchange availability.

- Increasing our Share of Project Costs. We have quite restricted rules for our share for of total project costs, particularly in the middle-income countries. For low-income countries it is common for us either singly or in cooperation with other donors, to finance 80% or more of the total project costs; but for middle-income countries we generally limit our financing to 35% of total cost or the foreign exchange cost, whichever is higher. In some middle-income countries we provide some local cost financing but our cost-sharing limit is usually around 50%, which is also the limit which we have applied to India. In those middle-income countries where we are broadly satisfied with their economic policy measures, particularly policies relating to domestic savings, we might consider, on an interim basis, increasing our share of total project cost to, say, 50%. Where the foreign exchange cost is higher than that we could agree to finance some of the local costs as well. Along the same lines we could look for opportunities to increase our time slice financing, to help in completion of ongoing projects.
- Supplemental Financing. While I think it is important to maintain our policy on cost overruns, there is another type of supplemental financing which we might consider. This type of supplemental financing might be justified in countries where high priority projects have been implemented satisfactorily but are now in difficulty because of the lack of counterpart funds. In such cases, if we are to provide supplemental financing we would, in effect, retroactively increase our share of total project costs and specifically our financing of local expenditure. Nigeria is a typical example of where we might do this for some projects.
- Non-project Lending. We are not now seriously constrained by the 10% rule and we clearly could not justify undertaking program lending with less conditionality without undermining structural adjustment lending. However, we could seek to increase the size of our structural adjustment loans in those countries where we have reasonable expectations that we could expand our influence by doing this. This would mean forgoing the rule that we would limit the size of structural adjustment loans to approximately 30-40% of the annual lending program of the country. If we did that we would also, of course, have to get Board agreement to relax the 10% rule. With larger amounts per loan there also might be more clients.

All of these approaches would address immediate problems in member countries and provide resources which would disburse more rapidly than standard approaches.



## OFFICE MEMORANDUM

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11/29

TO: Operations Policy Sub-Committee

DATE: November 12, 1982

FROM: E. Bevan Waide, Director, CPD

SUBJECT: PORTUGAL CPP: OPSC Review

1. Attached is the agenda and comments on major policy issues identified by CPD and PAB for consideration by the Sub-Committee. The suggested agenda items are:

- (i) acceleration of policy reform;
- (ii) the proposed lending for agriculture;
- (iii) appropriate policy conditionality for industrial lending;
- (iv) the Bank's role in helping deal with Portugal's potentially serious credit-worthiness problems;
- (v) lending program size;
- (vi) the role of IFC; and
- (vii) cost sharing/local cost financing.

2. The Review Meeting will be held on Thursday, November 18, 1982, at 11:30 a.m. in Room E-1208.

## Attachments

cc: Regional Office: Messrs. Dubey  
Picciotto  
Karaosmanoglu  
Colaco  
Aiyer  
Lazar

cc: Messrs. Wuttke  
Robless  
Chernick

FEB 16 2017

WBG ARCHIVES

PORTUGAL CPPTopics for Discussion

Eight years after the revolution of 1974, Portugal's economy is in difficulty and the political system, although now much more orderly, is barely managing to cope with the tough decisions that are needed. There is a pressing need for structural changes in the agricultural, industrial and energy sectors and for improved savings performance. Accession to the EEC, scheduled for 1984, adds a sense of urgency, but in any case Portugal must build a stronger base from which to exploit its advantages of low-cost skilled labor, location on the European mainland and climate. Although some modest reforms have been made (paragraphs 10-12 of the CPP), their pace has been leisurely. Moreover, attention has been diverted from the longer-run structural issues by the serious imbalances on internal and external accounts which resulted from expansionary economic policies introduced in the 1980 election year. For example, the current account deficit equalled 11 percent of GDP in 1981 and now calls for stiff short-run stabilization measures. But these, too, are being sidestepped. Political pressures, so far, have stood in the way of an agreement with the IMF on a stabilization package, but this is a prerequisite for addressing the longer term issues.

For the Bank, the task is to design an appropriate assistance program for the last years of lending before Portugal passes the graduation benchmark, possibly as soon as the mid 1980s. In 1981, Portugal's per capita income stood at about 90 percent of the benchmark.

1. What can the Bank do to accelerate economic policy reform?

In Portugal, the broad objectives of economic reform are clear, the Government is receptive at the technical level to Bank concerns and the Bank has maintained a SAL-type dialogue through its high quality ESW. The approach to policy reform has mainly been through individual projects and discussion of economic or sector reports, but the slowness in restructuring and the Government's unwillingness to come to grips with the pressing need for stabilization measures raises doubts as to whether this approach is effective. Structural adjustment lending would be a preferred Bank assistance instrument in these circumstances, but the Bank's lending program would be too small to have any effective leverage and would finance only an insignificant part of Portugal's deficit. The question, therefore, is whether the receptivity of the Government at the technical level can be turned into a politically acceptable action program. Because the adjustment process will take a number of years to complete, there is also the question of whether the Bank would be willing to support Portugal with structural adjustment lending following its accession to the EEC.

In the circumstances, (a) we recommend that further Bank lending be made conditional on Portugal reaching an agreement with the IMF which begins to address the serious short-run expenditure imbalances; and (b) we support the Region's proposal to link the lending volume to satisfactory progress on policy questions and to select projects that address major issues.

2. Does the proposed lending for agriculture address the structural issues in the sector?

The CPP indicates that the structural problems in the agricultural sector include a pattern of land ownership, rental and leasing not conducive to efficiency and improved productivity, an aging farm population and a lagging level of technology. Is it clear how the proposed lending (two agro-industry projects, a forestry project and a rural development project) will address these issues? While some ongoing projects support agricultural extension, this clearly should be given a much larger and more substantive project context in future, including support for research where this is needed to sustain the extension programs. Moreover, the fisheries sector, where Portugal has a strong advantage and where the CPP notes an important need for restructuring, receives no assistance.

To strengthen and enlarge the proposed lending for agriculture as suggested in the CPP (paragraph 37), we recommend a thorough review of the project content of agricultural lending immediately after the sector study has been completed. We also suggest that the Region attempt to strengthen Portugal's own project design and planning capability in agriculture or through a technical assistance project or project component. This could not only strengthen the Bank's pipeline, but have broader benefits in preparing projects for financing by others.

3. Can policy conditionality be strengthened in the industrial sector?

In the context of accelerating structural reform, one area of strong policy conditionality is the prospective operations for restructuring the textile and mechanical industries. Another is the proposed loan for small manufacturing industries (SMIs). The 1982 industry sector mission proposed several measures to reform industrial and financial policies: (a) a simpler, more rational incentive system which eliminates (or reduces) interest rate subsidies, has much less differentiation among industries and none among regions; and (b) an end to subsidization (tax exemption) of interest rates on borrowing by state enterprises (while private enterprises pay the full market rate). Each of the industry loans provides an opportunity to formulate a proper policy and incentive framework for the specific industry. Hence, in the context of these industry (and of the SMIs) operations, we should expect the Government to come forward with a proposal for incentive reform consistent with the recommendations of the sector report. The financial arrangements (for provision of domestic funds) on these projects should also be compatible with the recommendations we made for credit policies.

4. What role should the Bank play to assist Portugal in dealing with its potentially serious creditworthiness problems?

The recent deterioration of Portugal's balance of payments, accompanied by a sharp rise in foreign borrowing, are clearly a matter of concern. The current account deficit more than doubled in 1981, reaching 11 percent of GDP; total DOD rose from \$7.6 billion in 1980 to \$10.2 billion; the share of short-term debt in total DOD increased from 25 percent to about 33 percent; the debt service ratio has reached almost 15 percent. Even though the indicators do not yet suggest creditworthiness problems of the severity currently experienced by other countries with comparable economies, the trend is worrisome given the climate of political indecision in the country which has resulted in deteriorating short-term economic management and delays in essential structural reforms. Portugal's medium- and long-term creditworthiness will clearly hinge on substantial and expeditious improvements in the country's development performance. In our view, the Bank's lending program should be used to encourage Portugal to reach agreement with the IMF on a comprehensive and effective stabilization program, including a reform of the public enterprise sector, exchange rate adjustments and financial reforms. With improvements in policy performance in these areas, significant Bank support to Portugal should enable the Bank, together with the IMF, to play a catalytic role in raising the large amount of private capital Portugal is projected to need.

5. Is the proposed size of the lending program appropriate?

The \$908 million lending program proposed for FY83-87 is 14 percent larger than the program approved for FY82-86 at the September 1981 Bankwide review and would be equivalent to \$18.5 p.c.p.a. Even though Portugal's forthcoming accession to the EEC should open up additional sources of finance (both private and public), we endorse the program, provided its effectiveness in supporting Portugal's structural reforms is assured. In this context, we also endorse the Region's suggestion (paragraphs 34 and 35) to link the sectoral lending programs to satisfactory progress by the Government on measures to raise agricultural and industrial productivity in preparation for the country's accession to the EEC. With respect to the operational program, the inclusion of seven reserve projects for FY83-87, as compared to 15 lending operations, is excessive.

6. Can IFC play a greater role in Portugal?

Given the private sector orientation of the Government and the clear commercial advantages that Portugal will have in some sectors after joining the EEC (paragraph 42), the country would seem to be particularly suited for the development of an expanding IFC investment program. It is not entirely clear why there has not been such an expansion and what is being done to overcome the problems.

7. Project cost sharing

In line with project cost sharing authorizations for countries with similar per capita incomes, we suggest that Bank financing of the foreign exchange cost component of projects be limited to 35 percent of total project costs. This should not cause problems as, in the past, Bank loans have on the average contributed only about 20 percent of project costs in Portugal.

The next CPP should be scheduled in 18 months. We suggest that it include discussion of progress made in the country's stabilization and restructuring efforts, assess Portugal's access to capital markets, evaluate its relations with the EEC and review its graduation prospects.

Annex I compares the lending program proposed for Portugal in this CPP with programs approved earlier.

Annex II presents a comparison of various country performance indicators.

Attachments

|  | <u>FY78</u> | <u>FY79</u> | <u>FY80</u> | <u>FY81</u> | <u>FY82</u> | <u>FY83</u> | <u>FY84</u> | <u>FY85</u> | <u>FY86</u> | <u>FY87</u> | <u>FY79-83</u> | <u>FY82-86</u> | <u>FY83-87</u> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|
| <u>Operations Program (No.)</u>          |             |             |             |             |             |             |             |             |             |             |                |                |                |
| Approved, November 1978                  | 3           | 4           | 4           | 6           | 5           | 4           | 1           | ..          | ..          | ..          | 22             | ..             | ..             |
| Std. Table IVa, Nov. 1981                | 3           | 3           | 3           | 2           | 4           | 6           | 5           | 1           | 3           | ..          | 15             | 19             | ..             |
| Proposed, September 1982                 | 3           | 3           | 3           | 2           | 2           | 3           | 8           | 4           | 5           | 3           | 13             | 22             | 23             |
| <u>Lending Program (No.)</u>             |             |             |             |             |             |             |             |             |             |             |                |                |                |
| Approved, November 1978                  | 3           | 3           | 4           | 4           | 4           | 3           | 3           | ..          | ..          | ..          | 18             | ..             | ..             |
| Std. Table IVa, Nov. 1981                | 3           | 3           | 3           | 2           | 4           | 4           | 4           | 4           | 3           | ..          | 15             | 19             | ..             |
| Proposed, September 1982                 | 3           | 3           | 3           | 2           | 2           | 3           | 4           | 3           | 3           | 3           | 13             | 15             | 16             |
| <u>Lending Program (Cur. \$m)</u>        |             |             |             |             |             |             |             |             |             |             |                |                |                |
| Approved, November 1978                  | 131.0       | 115.0       | 130.0       | 165.0       | 160.0       | 150.0       | 150.0       | ..          | ..          | ..          | 701.0          | ..             | ..             |
| Std. Table IVa, Nov. 1981                | 131.0       | 143.0       | 134.0       | 120.0       | 150.0       | 140.0       | 179.0       | 165.0       | 165.0       | ..          | 678.0          | 799.0          | ..             |
| Proposed, September 1982                 | 131.0       | 143.0       | 134.0       | 120.0       | 81.0        | 170.0       | 180.0       | 180.0       | 188.0       | 190.0       | 609.0          | 799.0          | 908.0          |
| <u>Lending Program (Const. FY82 \$m)</u> |             |             |             |             |             |             |             |             |             |             |                |                |                |
| Approved, November 1978                  | 165.8       | 138.7       | 148.9       | 176.7       | 160.0       | 140.7       | 140.5       | ..          | ..          | ..          | 790.1          | ..             | ..             |
| Std. Table IVa, Nov. 1981                | 165.8       | 172.5       | 153.5       | 128.5       | 150.0       | 131.3       | 158.1       | 137.5       | 129.7       | ..          | 770.3          | 706.6          | ..             |
| Proposed, September 1982                 | 165.8       | 172.5       | 153.5       | 128.5       | 81.0        | 159.5       | 159.0       | 150.0       | 147.8       | 140.8       | 701.3          | 697.3          | 757.1          |
| Commitment Deflator (FY82=100)           | 79.0        | 82.9        | 87.3        | 93.4        | 100.0       | 106.6       | 113.2       | 120.0       | 127.2       | 134.9       |                |                |                |

NOTE: September 1981 Review Group Decisions: FY82-86 - IBRD \$799 million (for FY82-83 - \$290 million).

## COMPARATIVE COUNTRY ANALYSIS

The Portuguese economy was severely disrupted between 1973-75, resulting in low to negative growth rates (in GDP, agriculture and exports) in the first half of the decade. Both exports and GDP recovered well in the latter half of the 1970s, but agriculture remains stagnant. Due to high import levels, Portugal's resource gap is far wider than that of the comparator countries. Concerted efforts at birth control have resulted in low population growth rate, but the adult literacy rate is quite low for a country at Portugal's level of development.

|   | PORTUGAL          |                          | CHILE             |                   | TUNISIA           |                          | MALAYSIA          |           |
|---|-------------------|--------------------------|-------------------|-------------------|-------------------|--------------------------|-------------------|-----------|
| <u>Economic Structure</u>                           |                   |                          |                   |                   |                   |                          |                   |           |
| Population 1980 (millions) <u>a/</u>                | 9.8               | <u>c/</u>                | 11.1              |                   | 6.5               | <u>d/ &amp; e/</u>       | 13.9              |           |
| GNP Per Capita 1980 <u>a/</u>                       | 2350.0            | <u>c/</u>                | 2150.0            |                   | 1420.0            | <u>d/ &amp; e/</u>       | 1620.0            |           |
| % Agriculture in GDP 1980 <u>a/</u>                 | 11.5              | <u>c/</u>                | 7.0               |                   | 13.5              | <u>d/ &amp; e/</u>       | 24.0              |           |
| % Industry in GDP 1980 <u>a/</u>                    | 33.7              | <u>c/</u>                | 37.0              |                   | 32.4              | <u>d/ &amp; e/</u>       | 37.0              |           |
| Debt Service Ratio 1980 <u>b/</u>                   | 10.2              | <u>c/</u>                | 22.9              |                   | 13.9              | <u>d/ &amp; e/</u>       | 2.3               |           |
| <u>Economic Performance</u>                         |                   |                          |                   |                   |                   |                          |                   |           |
|   | 1970-80 <u>c/</u> |                          | 1970-80 <u>a/</u> |                   | 1971-81 <u>d/</u> |                          | 1970-80 <u>a/</u> |           |
| Real GDP Growth Rate                                | 3.6               |                          | 2.4               |                   | 7.4               |                          | 7.3               |           |
| Real Export Growth Rate                             | 5.1               |                          | 10.9              |                   | 6.6               |                          | 7.4               |           |
|   | 1980 <u>c/</u>    |                          | 1978-80 <u>g/</u> |                   | 1981 <u>d/</u>    |                          | 1978-80 <u>g/</u> |           |
| Gross Domestic Investment/GDP                       | 25.1              |                          | 19.0              |                   | 30.9              |                          | 26.6              |           |
| Exports and NFS/GDP                                 | 28.1              |                          | 21.7              |                   | 42.3              |                          | 56.9              |           |
| Resource Balance/GDP                                | 14.3              |                          | -2.7              |                   | -6.1              |                          | 5.8               |           |
| Gross Domestic Savings/GDP                          | 10.8              |                          | 15.3              |                   | 22.8              |                          | 32.4              |           |
| Government Revenue/GDP                              | 30.0              |                          | 32.1              | <u>j/</u>         | 30.0              |                          | 25.2              |           |
| <u>Recent Social Indicators f/</u>                  |                   |                          |                   |                   |                   |                          |                   |           |
|   | 1978-80           |                          | 1978-80           |                   | 1978-80           |                          | 1978-80           |           |
| Population Growth Rate                              | 1.3               |                          | 1.7               |                   | 2.1               |                          | 2.4               |           |
| % Change in Crude Birth Rate<br>(1960-80) <u>a/</u> | -24.5             |                          | -40.7             |                   | -28.6             |                          | -30.6             |           |
| % Change in Crude Death Rate<br>(1960-80) <u>a/</u> | 28.0              |                          | -42.7             |                   | -56.2             |                          | -52.9             |           |
| Infant Mortality Rate (per 1,000)                   | 35.1              |                          | 43.2              |                   | 90.0              |                          | 31.1              |           |
| Life Expectancy (years)                             | 70.8              |                          | 67.1              |                   | 60.2              |                          | 64.2              |           |
| Adjusted Enrollment Ratio:                          |                   |                          |                   |                   |                   |                          |                   |           |
| - Primary   | 117.0             |                          | 119.0             | <u>m/</u>         | 102.0             |                          | 93.0              |           |
| - Secondary   | 55.0              |                          | 55.0              | <u>m/</u>         | 25.0              |                          | 52.0              |           |
| Adult Literacy Rate                                 | 71.0              |                          | 88.1              | <u>h/</u>         | 62.0              |                          | 58.5              | <u>h/</u> |
| <u>Lending Program</u>                              |                   |                          |                   |                   |                   |                          |                   |           |
|   | FY77-81 <u>c/</u> | FY82-86 <u>c/</u>        | FY77-81           | FY82-86 <u>l/</u> | FY77-81 <u>d/</u> | FY82-86 <u>d/</u>        | FY77-81           | FY82-86   |
| Nominal IBRD \$USM                                  | 602.0             | 799.0                    | 176.0             | 400.0             | 579.1             | 745.5                    | 581.0             | 900.0     |
| p.c.p.a. Lending \$US                               | 12.3              | 16.3                     | 3.2               | 7.2               | 17.8              | 22.9                     | 8.3               | 12.9      |
| p.c.p.a. Grant Equivalent \$US                      | 2.8               | 3.7                      | 0.7               | 1.6               | 4.0               | 5.2                      | 1.9               | 2.9       |
| p.c.p.a. in Constant 1981 \$US                      | 14.2              | <u>k/</u> 14.2 <u>k/</u> | 3.7               | 5.7               | 21.0              | <u>k/</u> 20.4 <u>k/</u> | 9.2               | 11.4      |

a/ World Development Report 1982.

b/ World Debt Tables, December 1981.

c/ Portugal CPP, September 1982.

d/ Tunisia CPP, September 1982.

e/ 1981 figures.

f/ Social Data Indicator Sheets, EPD, 1982.

g/ International Finance Statistics, IMF.

h/ 1970 figure.

i/ Using 5-year average deflator for FY82-86.

j/ 1977-79 data.

k/ Using constant 1982 US\$.

l/ Review Group Decision figures for FY82-86, September 1981.

m/ 1977 data.

OFFICE MEMORANDUM

*M. Humphrey*

*File  
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11/18.*

TO: Members of the Operations Policy Subcommittee

DATE: November 10, 1982

FROM: Sidney E. Chernick, <sup>S.E.C.</sup> Assistant Director, CPD

SUBJECT: Sector Support Strategy  
Paper: Transportation

The Operations Policy Subcommittee will meet on Wednesday, December 8 at 9:30 a.m. in Room E-1208 to consider the attached sector support strategy paper on transportation prepared by the Transportation and Water Department.

Attachment

cc: Ms. Pratt  
Mr. Willoughby



DRAFT

SECTOR SUPPORT STRATEGY PAPER

TRANSPORTATION

Transportation and Water Department, November 1, 1982

Table of Contents

|  | Page |
|--|------|
| Summary                                  | i    |
| New Opportunity for the Bank             | ii   |
| Six Main Needs in Transport Development  | iii  |
| Recent Bank Performance                  | iv   |
| Future Lending Program                   | vi   |
| Sector Work                              | vii  |
| Project Content                          | vii  |
| Organization of Sector Staff             | ix   |
| Plan for TWD                             | x    |
| <br>                                     |      |
| I. Introduction                          | 1    |
| Significance of Transport                | 1    |
| The Transport Market                     | 2    |
| Conclusion                               | 5    |
| <br>                                     |      |
| II. Needs of the 1980s                   | 6    |
| Transport Demand and Investment          | 6    |
| Reinforcing Maintenance Capacities       | 8    |
| Strengthening Institutional Performance  | 9    |
| Increasing Energy Efficiency             | 10   |
| Improving Rural Transport Networks       | 11   |
| Supporting International Trade Expansion | 12   |
| Assisting sub-Saharan Africa             | 13   |
| <br>                                     |      |
| III. Recent Trends in Bank Activity      | 14   |
| Distribution of Lending                  | 14   |
| Project Performance Indicators           | 16   |
| Infrastructure Maintenance and Operation | 18   |
| Sector Policy Reform                     | 21   |
| Energy Conservation                      | 23   |
| Rural Transport Development              | 24   |
| International Trade Support              | 26   |
| Research and External Relations          | 28   |
| <br>                                     |      |
| IV. Future Bank Activity                 | 29   |
| The Bank Lending Program                 | 31   |
| Co-financing                             | 35   |
| Sector Work                              | 37   |
| Highways                                 | 40   |

|  |        |
|--|--------|
| Rural Infrastructure                       | 42     |
| Railways                                   | 44     |
| Seaports and Airports                      | 46     |
| Domestic Water Transport                   | 47     |
| Multi-Modal Dimensions                     | 48     |
| Structural Adjustment Loans                | 49     |
| Training of Borrowers' Staff               | 50     |
| <br>V. Staff, Organization and TWD Program | <br>51 |
| Bankwide Staffing                          | 52     |
| Bankwide Organization                      | 53     |
| TWD Role                                   | 55     |
| Changing Distribution of TWD Effort        | 57     |
| Operational Support and Advice             | 58     |
| Policy and Research                        | 61     |
| External Relations                         | 62     |

### Annexes

- I. Principal Papers Produced July 1979-June 1982
- II. Projected Output of Policy Papers and Guidelines and Research Reports, FY83-85

### Tables

|     |  |    |
|-----|--|----|
| 3.1 | Bank/IDA Lending for Transportation FY77-81                        | 14 |
| 3.2 | FY77-81 Lending for Transportation by End-Use                      | 15 |
| 3.3 | Economic Performance of Transport Projects Audited Audited CY79-81 | 17 |
| 4.1 | IBRD/IDA Lending Programs by Mode and Region                       | 33 |
| 4.2 | Average Annual Lending by Mode in 1977-81 US Dollars               | 34 |



SECTOR SUPPORT STRATEGY PAPER: TRANSPORTATION

Summary

i. Efficient transport is a key factor in economic, social and political development. Transport demand tends to grow faster than GNP at early and middle stages of development. This is particularly true on the passenger side, where demand often increases more rapidly than for any other major class of good or service. The importance of agriculture and manufacturing at those stages of development, and growing regional specialization, mean that total freight movements also usually increase faster than GNP. Current emphases in many countries on increasing exports, and food and fuel production, are likely to reinforce this tendency.

ii. Meeting these demands is costly and lays large burdens on development programs. Besides the growth of current demand, many countries also face the need to eliminate transport bottlenecks and to catch up with maintenance and rehabilitation backlogs. With few exceptions, provision of transport infrastructure is recognized everywhere as essentially a public-sector responsibility. The transport sector has typically been a major user of public budgetary funds. Due to its dependence on liquid fuels, it has now also become a significant burden on most countries' balance of payments. Of the oil-importing developing countries' total energy import bill of \$74 billion in 1980 some 50% was for transport.

iii. Faced with tightening budgetary and foreign exchange constraints, Governments are seeking ways to economize. The transport sector does offer considerable potential for more efficient use of resources. Infrastructure is giving poorer service and lasting less long than it could, due to poor maintenance. Maintenance equipment fleets are often poorly managed and underexploited. Construction design standards have often been excessive in some respects, and inadequate in others. Charges for use of infrastructure have not been guiding demand appropriately.

iv. Development of transport services has suffered from excessive Governmental regulation and protection of established interests. State-owned transport enterprises have often required increasing operating subsidies. Incentives to efficiency in operations have been weak. Innovation and local initiative have been discouraged. Yet transport requirements are so complex and varying that it is only with strong and equitable competition within and between the modes that the supply of services can be expected to adjust effectively to shippers' and travellers' needs.

v. The Bank has long maintained four basic principles as to how the transport market should work:

- (a) reliance on competition to keep the industry dynamic;
- (b) adoption of pricing structures and price levels that reflect real resource and social costs;

- (c) creation of regulatory environments that encourage enterprise, innovation, risk-taking, decentralized decision-making and adequate safety levels; and
- (d) equitable treatment of all modes in their access to capital, foreign exchange, and markets.

These principles are neutral as to the public or private ownership of assets.

vi. Long efforts to promote these principles have resulted in slow and limited change. The Bank has helped to reduce economic regulation of the transport industry in a number of countries. But movement has been slow and partial because of the political power of established interests. Numerous studies have been promoted of countries' road user taxation, but few positive improvements have resulted. Almost all of the Bank's railway borrowers have fallen short on financial objectives agreed with them, and many have received increasing state subsidization.

#### New Opportunity for the Bank

vii. Recently, however, Governments have shown greater readiness to consider significant policy reform and pricing changes in transport. In face of the difficulties of the last few years, a number of borrowing countries have begun to introduce measures which had long been advocated by the Bank but had previously been considered too difficult. Various Governments have reduced regulation of the trucking industry and abolished loss-making state-owned enterprises in this field. Others have opened up the road passenger transport industry. Several have made major adjustments in road user taxation and rail tariffs. A few have introduced scarcity pricing of certain state-owned transport facilities in short supply. A number of countries have initiated major reviews of transport policy.

viii. The Bank therefore faces new opportunities in the transport sector. Completed Bank-assisted projects have generally shown good rates of return, although somewhat weaker in sub-Saharan Africa than elsewhere and in railways and ports than in highways. Valuable contributions have also been made to the gradual improvement of countries' institutions, procedures and staff, in areas like planning, contracting, maintenance, accounting, and operational management. Now the long-standing concern to help improve sector policies shows greater possibility of success and is worth more detailed attention than it has sometimes had in past operations.

ix. Progress in policy reform will not be fast or easy, any more than in the institutional area. But there is no major UN agency other than the Bank with a mandate across all modes. The Bank has a uniquely large and broad experience in transport. It has a clear responsibility to promote this progress.

x. Pursuit of policy reform in the sector also fits with the Bank's concern to contribute both to growth and equity. Economies resulting from improved sector policies will increase resources available for

poverty-oriented programs, including improvement of rural and slum roads to increase access to employment opportunities. Reduced regulation of transport services will provide greater scope for non-conventional solutions (ranging from animal-drawn carts to lower-priced off-peak services on major facilities) which can sometimes be run by the informal sector and would often be most used by the poor.

xi. This paper deals essentially with the application of these principles to transport outside urban areas, since the Urban Development Department, which carries lead responsibility in the Bank for urban transport, is preparing a separate paper. It assesses Bank activity in transport over the last three years. It focusses on the next three years, outlining overall Bank strategy in transportation and developing a TWD strategy for support to the Regions.

#### Six Main Needs in Transport Development

xii. A continuing top-priority need in most developing countries is to develop more adequate and efficient capacity for maintenance in the transport sector. This involves questions of discipline, attitudes and incentives as well as skills and techniques. It is a matter of developing the private sector, which may be the most efficient means of carrying out much of the work in mixed economies, as well as the public sector which has to plan, manage and supervise.

xiii. Important in most countries, and of overriding importance in some, is to further increase the efficiency of transport operating agencies, such as railway corporations, port authorities and public trucking companies. More staff training is needed, both in the technical aspects of their work and in the management of others. At least as important is better structuring of responsibilities between and within agencies so as to give clear tasks and corresponding powers. More effective competition needs to be encouraged. Central planning authorities have to give greater attention to policy planning as well as to further strengthen the quality of investment planning.

xiv. Energy economy has become a matter of concern to all countries. Arbitrary controls on vehicle operation are not useful, and large new railway investments intended to save energy have to be examined very carefully to ensure that they are in fact economically justified. But there is considerable potential for cost-effective energy saving in transport -- by better vehicle operation and maintenance, more efficient utilization of vehicle fleets, gradual conversion of fleets to more energy-efficient vehicles, marginal shifts of traffic to less energy-intensive modes, and improved urban traffic management.

xv. Rural transport improvements remain much needed. They are a vital component of development strategies emphasizing rural areas and agricultural growth, to provide more food and fuel, to incorporate the rural poor more effectively in the development process, and to generate increased export earnings. Rural transport investments have to be carefully planned in the context of broader development. Fuller attention should be given to simple tracks for non-conventional vehicles. More needs to be done to involve local communities in infrastructure planning and construction.

xvi. International trade is likely to impose larger requirements for transport investment in the developing countries in the 1980s than in the 1970s. This is due to the growth of trade and, even more, the spread of containerization. Efficient planning and staging of the investments involved -- in ports, railways, some trunk roads, and inland terminals -- will be particularly important. Special efforts are required to improve port operating efficiency. The trade and transport 'facilitation' measures that have been developed and applied so successfully in Europe -- such as document simplification, customs guarantees, and international licensing of vehicles -- must be spread more fully to the developing countries.

xvii. A last particular priority is to help sub-Saharan Africa overcome its unusually difficult transport problems. To an even greater extent than elsewhere, the need is principally to improve maintenance and operation of facilities. This means capacity-building and training, with particular stress on capacities for managing and executing the maintenance of civil works and mechanical equipment and the operation of complex transport systems such as railways and ports.

#### Recent Bank Performance

xviii. Bank transport activity of the last few years has been responding to these emerging needs. Tools have been sharpened in fields like maintenance planning, improvement of operational efficiency, upgrading of rural infrastructure, and development of human resources. The same process is well along in areas that have newly become important such as techniques for saving energy in transport, and policies for effective operation of transport systems consisting of several interacting and competing modes.

xix. Bank staff have fashioned new types of projects and project conditions. And many, if not most, of the more traditional types of project have had new features and components, such as improvement of domestic construction capacities, enlarged training programs, more flexible sub-project selection arrangements, or increased assistance for policy studies.

xx. Two fundamental philosophical changes have been underway directly responsive to the needs discussed. First, concern for the building of individual institutions has been replaced with the wider notion of capacity-building. This emphasizes networks of institutions in the private as well as the public sector. And it expresses a renewed commitment to the development of human technical and managerial capacities. Second, preoccupation with cost-minimization for meeting given transport demands is being replaced by broader resource-saving. This involves improvement of the policies which affect and channel transport demands, instead of taking those demands as given. And it requires consideration of a wider array of alternative solutions than were often examined in the past.

xxi. Improvement of the maintenance and operation of infrastructure has been the overriding theme of Bank transportation lending in the last few years. All the major modes have seen some projects entirely devoted to this purpose and numerous projects combining this with some upgrading of the infrastructure. Many dimensions require consideration in programs to improve maintenance, from staff motivation to spare parts control. Compre-

hensive Action Planning, which had been largely limited to railways, was applied more deeply there and extended to the other modes. The Bank's new model for planning road maintenance was used to help prepare more than 30 Bank projects and is now used in some countries for regular planning.

xxii. The Bank has had a major impact in the last few years in getting more adequate attention in its member countries to better maintenance. Some of the new loan covenants used have helped significantly, even if not always fulfilled to the letter. Many external seminars have been held on the basis of a 1979 policy paper on maintenance. But there is still a long way to go in bringing maintenance capacity to adequate levels -- especially mechanical maintenance, axle-load control and maintenance of rural infrastructure.

xxiii. Traditional institution-building work has continued with both central planning units and modal agencies. More emphasis has been given, in particular, to staff training and to better Action Planning for improvement of operational efficiency. Steps have been developed to further increase the responsibility and powers of operating agency managements. Many railway and water transport projects have helped strengthen institutions which should be handling somewhat larger shares of total traffic following the energy price increases.

xxiv. Transport projects have also helped to achieve the substantial adjustments of prices and user charges necessitated by the energy price increases and broader inflation of the 1970s. Railway financial performance remains a serious problem, but loan provisions for regular review of tariffs have helped reduce delays in tariff adjustments. Bank dialogue has contributed to adjustment of petroleum product prices and road user taxes in several countries. However, more systematic attention is still needed in highway project appraisals to the structure, as opposed to the overall level, of road user charges. A review of the potential for energy conservation in transport has just been completed. A research project has been started to strengthen Bank capacity to advise on the pricing and taxation of transport fuels.

xxv. The Bank's increased concern with other aspects of sector policy has also begun to reflect itself effectively in operations, and to assist reform. Excessive regulation of the trucking industry was taken up in discussion of several loans. Studies have been started, and some relaxations have already been introduced. Highway Sector Loans (6 to date) and multi-modal projects (5 to date) have proven particularly useful for dealing with sector policy issues. But the effort needs further broadening and deepening. More attention must go to the legal and procedural constraints preventing or restricting competition with some of the Bank's large public-sector borrowers.

xxvi. Some 20-30% of recent highways lending has been devoted to rural roads, and about as much again has been provided by transport components of loans for Agriculture and Rural Development projects. Particular attention has been given to coordination of planning with that for other activities in the area affected. Numerous projects have helped shape a sound institutional structure, at the national or state level, for handling the



planning, construction and maintenance of rural roads. A few have helped specifically to develop community-level involvement in planning and construction.

xxvii. Most port, many railway and a few highway projects in the last few years have contributed substantially to easing the flow of international trade. Increased effort has been given in preparation of port projects, with some success, to overcoming the major constraints to operating efficiency that are posed by restrictive labor practices. Serious delays and cost increases continue to be problems in execution of port projects, but in a smaller proportion of cases than in the past due to emphasis on fuller engineering preparation. The Bank has provided a wide range of advice, not always connected with transport loans, on containerization and other international transport issues.

#### Future Lending Program

xxviii. The most recent available version of the Bank's Lending Program (March 1982) indicates that total lending for transport (including urban transport) would represent about the same share of all Bank lending in FY82-85 as it did in FY77-81. Of the total 17-18%, about 13-14% would be for transport projects, and 4% for transport components of other projects, principally Agriculture and Rural Development, Urban and Industry. This would mean a small increase in transport lending in real terms, entirely due to expanded lending in Asia. However, the Lending Program is still in flux, and further changes are likely.

xxix. A worrying aspect of presently planned lending is that it may be inadequate to sustain the dialogue with some countries on improvements in policies and practices. In three Regions the percentage of active borrowing countries to receive transport loans would drop sharply between FY77-81 and FY82-85. The drop in Western Africa would be from 90% to less than 66%, so that only 14 of the Region's 22 active borrowing countries would receive transport loans in FY82-85, compared with 18 out of 20 in Eastern Africa. As a result, total transport lending to sub-Saharan Africa would fall some 20% in real terms. In EMENA the share of transport in total lending would halve (as in Western Africa) and reach only 8%, significantly lower than for any other Region.

xxx. The transport sector should pursue co-financing more actively. This could help to compensate for slow growth in the Bank's own lending and would help to ensure a better use of external funds available for transport investment. Co-financing of Bank transport projects has increased substantially relative to Bank lending amounts in recent years. It has spread from railways to ports and highways and come from a wider range of sources, including private banks.

xxxi. To further promote co-financing, three steps appear worthwhile. First, Regional programs and transport divisions should give high priority to technical contacts with potential co-financiers at early stages in the genesis of projects. Second, more attention should be given in appropriate cases (e.g., ports, and routes of great interest for international trade) to any possibilities for involving private foreign investors, whether banks through loans or bond purchases, or transport operating companies through direct investments. Third, to foster contacts and avoid undesirable

inconsistencies that now arise in independent operations, the Bank should experiment with annual meetings of financing agencies interested in transport development in low-income countries in Africa and elsewhere.

### Sector Work

xxxii. Transport sector work should focus more directly on identifying ways to make the transport market function better. Generally, the four most fruitful policy areas for attention at this time are: institutional and legal structures affecting competition within and between modes; pricing and taxing rules, practices and structures; other steps to improve the energy efficiency of the transport sector; and measures to raise the responsiveness to market demands of the public agencies responsible for infrastructure provision. Work on such policy issues should accompany continued emphasis on upgrading investment planning capabilities.

xxxiii. Sector policy studies should continue to be done increasingly by borrowers and their consultants. Bank staff-time should be conserved mainly for work to identify and delineate issues, guide those studying them in depth, review conclusions, and discuss actions with the responsible authorities. Bank Transport Sector Memoranda may need to be briefer, but should review and guide all relevant project work, whether on transport projects or on the many other types of projects which have transport components or can contribute to the improvement of transport.

xxxiv. Projects should be selected and formulated in such a way as to help gradually bring about any needed policy reforms. What it is wise to seek in terms of loan preconditions or conditions varies greatly, depending on such factors as the state of the dialogue with the borrower and the significance of the Bank as a lender. But loan preconditions and conditions are likely to range wider than the investment and financial performance issues which have generally been most important in the past. More attention should go to the sector as a whole, including all modes and transport services as well as infrastructure, in deciding upon loan conditions. Action which is still outstanding on issues long studied and agreed in principle should be expected to start before commitment of a new loan.

### Project Content

xxxv. Highway projects will remain the most important single form of transport lending, affecting the largest number of countries. Their main focus should continue to be on building up capacity in the public and private sectors for maintenance, renewal and network management. They will therefore consist largely of specially tailored programs of financing, technical assistance and training to achieve the next stage in development of local capabilities. A somewhat more selective approach than in the past should be taken to equipment financing.

xxxvi. Highway loans, whether for projects or sector programs, should be used considerably more than in the past to deal with policy issues such as taxation of road users, deregulation of transport services and reform of Government contracting procedures. All highway loan appraisals should include at least a simple analysis of the structure of road user taxation

and a sound evaluation of economic regulation affecting the road transport industry.

xxxvii. Improvement of rural transport infrastructure is likely to continue to account for about 4% of total Bank lending. A larger share than in the past will be through transport loans. Greater efforts must be made to spread the use of labor-intensive techniques of construction and maintenance for rural infrastructure, whether for transport or other purposes. Wherever the basic wage actually paid in the area affected is less than the equivalent of about US\$4.00 per day in 1982 prices, and labor is available in adequate quantities, the alternative of using labor-intensive techniques should be seriously considered.

xxxviii. Increased attention should also be given, in rural road projects, to the development of arrangements for more effective local participation, at the village and/or district level, in the planning of works. Also, obstacles to the spread of lower-cost, non-conventional vehicles, such as their ineligibility for credit and restrictions on their import and licensing, need to be examined, and efforts made to overcome them.

xxxix. Railways may account for a substantially increased share of total transport lending, nearly one-third. But railway loans will be made to fewer countries than in the past. These changes reflect the combined impact of the recently agreed greater selectivity in railway lending, the increased comparative advantage of densely trafficked railway lines following the energy price increases, and large backlogs in modernization in individual countries. The main task within railways lending in the next few years will be to fully apply the more selective and focussed approaches outlined in the recent Bank policy paper on "The Railways Problem".

xl. Seaports serving foreign trade may also receive a somewhat increased share of Bank lending in the coming years. Almost all the projects will involve introduction and expansion of modern bulk-handling methods and/or containerization. In the preparation of such projects, the Bank should continue to insist, and increase its advice, on resolution of labor problems which prevent efficient use of these new techniques. Attention should be further increased to preparation and follow-up of Action Plans, and underlying measures, to increase port operating efficiency. Improved costing, pricing and competitive subcontracting need additional emphasis in port operations. Trade and transport 'facilitation' efforts also warrant more frequent consideration.

xli. Lending for domestic water transport remains the smallest among the transport categories but increases fastest. It includes national inter-island services, most inland water transport, and facilities for national coastal shipping. Particularly where they can make an important contribution to increasing transport's energy efficiency, the Bank should continue its efforts to generate projects in these modes. They often suffered neglect in countries' earlier transport development programs. Main problems to be resolved include excessive Government economic regulation and restrictions on competition in service provision, restrictive port labor practices, neglected maintenance, and insurance and customs problems.

xlii. Initial experience with projects that include components relating to more than one mode of transport suggests that they should be further encouraged. Intermodal interchange arrangements often offer particular opportunities for efficiency improvements. Projects involving several modes may form a useful framework for discussions, studies and action, by Government, on sector policy issues relating to competition and cooperation between the modes. The modern truck terminal is likely to be the centerpiece of some projects appropriate for Bank support in the coming years.

xliii. The transport sector should seek more actively for support from general country dialogue and Structural Adjustment Loans, to supplement the efforts of transport loans toward sector policy reforms. Work within the framework of such loans on Plan Investment Reviews, and on Contract Plans between Governments and state-owned transport enterprises, serves both transport and broader purposes. Support at the macroeconomic level is particularly needed for resolving issues such as transport operating subsidies and the channelling of foreign exchange for purchase of spare parts. It will be important also for some of the issues arising in connection with development of the domestic construction industry.

xliv. Training of borrowers' staff still needs fuller attention, earlier in the project preparation cycle, although efforts on this have increased significantly in recent years. Borrowing agencies' training programs need to be further enlarged. Well worked out plans for expansion should normally be ready by the time of loan approval, so that they can go immediately into execution. Particular attention should be given to management training. Development of borrowing countries' technical services and research capacity in transport engineering and economics should continue to be fostered. EDI will continue to have a vital supportive role to the Bank's effort in transport, especially to spread capacity for sector policy analysis and reform.

#### Organization of Sector Staff

xlv. The Bank's transport staff face a difficult task, to foster and respond to the borrowing countries' increased readiness to consider sector policy reform, while still maintaining and improving the patient institution-building work of the past. The availability of additional appropriate staff resources would certainly help to speed implementation of the emphases described in the last pages. But the impossibility for the Bank to provide such resources at this time does not prevent steady implementation. The Bank's transport staff have demonstrated imagination and flexibility in the large number of innovative projects and project features developed over the last few years.

xlvi. The immediate prospect is for a slight reduction in the approximately 175 higher-level staff positions recently devoted to the sector. This reflects Bankwide budget constraints and a small decrease in the number of loans programmed to be made each year, especially in highways. Projects and project thrusts will have to be chosen very carefully to ensure scarce staff-time is concentrated on operations making

the greatest possible contribution to development. Greater reliance will have to be placed on borrowers and consultants for standard engineering economics work. More use will need to be made of technical assistance loans and loan components.

xlvii. The eleven Transport Divisions in the Regions are now organized in such a way as to give effective emphasis to sectoral issues. They account for about 85% of the Bank's transport staff. Several Regions have reorganized these Divisions recently so as to give them full responsibility for all modes of transport in a sub-group of their countries. This is an appropriate response to the borrowing countries' increased concern to improve the efficiency of the sector as a whole, although it involves minor difficulties in efficient scheduling of more specialized Regional staff.

xlviii. Of the other 15% of the Bank's transport staff about two-thirds are in TWD and one-third distributed among EDI, OED and EDC. Four of TWD's staff-members have been in the Department much more than five years, due to a combination of special talents and Bankwide difficulties in rotating senior staff. The other fourteen have been recruited almost equally from Regional Transport Divisions, other Bank assignments, and outside the Bank.

il. TWD is also making minor organizational changes to strengthen sector policy emphasis. The particular form of organization adopted in 1977 -- small units with comprehensive responsibilities for the different modes and project-types -- has helped to get a good interaction between operational, policy and research work. However, to strengthen treatment of sectoral issues, more of the resources in the Economic Adviser's Office are being devoted to review and support of Regional sector work. Also, economists in several of the subject-area units are being given an explicit cross-responsibility to the Economic Adviser for purposes of such work.

1. The need for uncommon specialists, and the best organizational location for them, have to be kept under review. They now number less than ten, more than half being in the Regions. Increased diversity of projects to respond to countries' particular needs might in future require addition of a few more such specialists. Sufficient and appropriate specialists have so far normally been brought to bear on operations by flexible use of consultant arrangements, inter-Regional lending of staff, staff transfers and several TWD positions for staff who devote part of their time to direct support of the Regions in specialized areas. One new pool position, directly subscribed out of numerous departments' consulting budgets, has just been created in TWD. Even in the three main transport modes, fall-off in one or another Region's lending could eventually make it desirable to recentralize technical staff involved, for wider use.

#### Plan for TWD

li. In the hard job ahead of Bank transport staff, the principal task for TWD is to help the Regional Divisions take full advantage of their new sector focus, and of the series of overview papers it has issued in recent years -- of which this document represents the culmination. TWD certainly should not expect to be the originator of all or even most innovation, any more than it has been in the past. Rather it

should be the stimulator, patron and assistant to innovation, particularly that developed by the Regional staff with their borrowing countries.

lii. The accent must be on quick-response support of Regional Division staff in the difficult task they now have to help countries bring about sector policy reform and improvements in the operation of the sector. At times the applicable solutions to policy and institutional problems will, of necessity, be of second-best variety. The emphasis of TWD Advisers must then be on helping the Regions to make the second-best as good as it can be. Supportive and constructive advisory style is even more important than it has been.

liii. Amongst the various instruments of support to the Regions, increased emphasis should now be given to early advice on selection and shaping of projects and to assistance in sector work. 'Upstream' work on projects has increased greatly and accounted for about 50% of all the project-related advisory time spent on transport projects in FY81 and in FY82. But more should be done to help explore and develop the opportunities for projects to contribute to solution of sector policy problems. For sector work, broadly defined, review and advice needs to be more systematic, especially at the upstream stage, and more direct support should be provided, although it will have to remain selective due to limited resources.

liv. Bank staff training also needs increased attention. The Bank's transport staff is generally highly skilled and experienced in technical, economic and institutional analysis of investment projects and programs. But the large majority, in TWD as well as in the Regions, have much less background in broader policy work. Principal subject areas that need to be more fully incorporated in Bank staff skills are analysis and assessment of sector policies (especially regulation and pricing), negotiation of concession agreements and other contractual arrangements with private enterprises, and management of transport operations. Incremental training of existing staff should be the main means to fill the gap.

lv. TWD has considerably increased the share of its effort (currently about 4%) directly devoted to organizing and providing training, but there is strong demand from the Regions for more. Also a somewhat more systematic program needs to be developed. A joint TWD/Regional Committee on training has been formed, and results of a new questionnaire survey of all transport staff are being analyzed.

lvi. A revised training program will be drawn up. It is likely to add to the existing program more formalized sessions on techniques of policy analysis as well as periodic multi-day meetings, perhaps outside Washington, to exchange experience in policy and institutional reform. External training, on an individual basis, should also be much more used. For this to be possible, budgetary arrangements are needed to compensate Divisions for staff absent on training.

lvii. In view of the need to devote a slightly increased share of TWD resources to Advice, Training and Direct Support, a very selective approach has been adopted in planning future Policy and Research work. Forthcoming

Policy work will concentrate on the preparation of suggested methods and approaches, and policy notes, on fairly narrow topics, essentially sub-aspects of the major issues discussed in the series of policy papers produced in the last few years. No more such major papers are envisaged at present.

lviii. Planned Research work includes completion of the two major studies underway since the early 1970s (Highway Design and Labor-Intensive Construction), several small-scale rural transport studies, and a number of short studies on policy issues cutting across modes. Some research work will be done in direct connection with operations. No further research undertakings approaching the scale of the Bank's efforts on Highway Design and Labor-intensive Construction are currently contemplated, but outside resources beyond those presently in view will be required to accomplish several of the studies that are planned.

lix. The relatively minor share of its time that TWD devotes to External Relations for transport will also increase somewhat in coming years. The function is shared with Regional Division staff, many of whom attend conferences and present papers and statements. It is hoped that Regional participation will increase because it helps disseminate Bank views and also provides useful learning opportunities. The increased TWD effort would be devoted to policy contacts and discussions with potential co-financiers in the transport sector. It would also be devoted to the raising of external funds and expertise for research projects and related technical assistance to the borrowing countries.

## SECTOR SUPPORT STRATEGY PAPER: TRANSPORTATION

### Introduction

1.01 The purpose of this paper, as of others in the Sector Support Strategy series, is to outline a strategy of support from the relevant central, OPS department to the Bank's Regional Offices in the coming years. It can only do this on the basis of an assessment of recent trends in Bank activity and a definition of desirable future trends. Much of the text is devoted to laying this foundation, since no comprehensive paper on the Bank's strategy in transportation has been prepared since 1972. It focuses specifically on the last three years and the next three years. This paper is also intended to assist the Personnel Management Department as background for a staff planning study they have underway for the Transportation sector. In-depth treatment is not given to urban transportation since the Urban Development Department carries lead responsibility in the Bank for it and is preparing an updated policy paper on the subject.

1.02 The report proceeds in five chapters. This Introduction brings out key elements in the Bank's approach to transportation. Chapter II discusses the main areas where the Bank's borrowing countries need assistance in the 1980s. Chapter III assesses recent trends in Bank activity. Chapter IV reviews the current state of the future lending program and recommends substantive thrusts for Bank lending and advice. Chapter V deals briefly with organization and staffing issues for the sector Bankwide, and puts forward a program of activity in transportation for the OPS Transportation and Water Department (TWD).

### Significance of Transport

1.03 History has shown efficient transport to be a key factor in economic, social and political development. Lower transport costs and more reliable services provide opportunities for people to specialize production, to widen and deepen markets, and to exchange business and personal information and ideas. They also offer opportunities to government and private agencies to increase the availability and quality of social services, public information and cultural activities. They are a vital element in almost any strategy to improve people's lives. Besides serving income-growth and income-distribution objectives, transport facilities are essential to meeting valid political objectives, such as ensuring national security, cementing national unity and strengthening cooperation with other countries. The consequences of transport investments, in terms of the developments they induce, are sometimes much wider and more profound than the measured benefits expected from them.

1.04 As the Bank has grown and diversified, transport projects have accounted for a steadily diminishing share of its operations -- some 35% of total lending in the 1950s, 25% in the 1960s and 15% in the 1970s. An important development in the 1970s, however, was the appearance of transport components in large numbers of projects principally oriented to other



purposes, such as rural and urban development and industrial and mining schemes. These components have aggregated some 3-4% of all Bank lending in recent years. Transport projects and components combined have accounted for a rather steady absolute amount of lending through the 1970s, of about \$2000 million per year in 1981 dollars.

1.05 Whether in the form of transport projects or of components in other projects, Bank lending for transport has always been predominantly for infrastructure -- its construction, rehabilitation and maintenance. The relatively small amounts which have been loaned for purchase of ships or aircraft are far outweighed by lending for construction and expansion of sea-, river- and airports. Even in railways, where lending for locomotives and rolling stock has been more substantial, most of the Bank's funds have gone to line works, yards and workshops. Although technical assistance has been provided to railway and port authorities to help fulfil their operating responsibilities, the main thrust of the Bank's institution-building effort in transport has also been to develop local capacities to plan and maintain the infrastructure.

1.06 Nonetheless, the Bank has always recognized that the ultimate test of the effectiveness of any infrastructure provided was in the services that would make use of it, and in the benefits to be derived directly or indirectly from these services. This meant in turn a concern with such questions as: whether the vehicles which would use the infrastructure were contributing adequately to the costs of providing and maintaining it; whether the trucking or shipping companies using the facilities were competitive with one another, so that the cost-savings from infrastructure improvement would be passed on to the producers and consumers of goods and to passengers; and whether the various modes which were serving or could serve a route were reasonably free to respond to consumer demand, and motivated to do so by appropriate financial objectives. Answers to questions such as these -- for all relevant alternative modes -- were essential to derive sound traffic forecasts for sizing the infrastructure investment and to assess whether the scheme would yield sufficient benefits to make it worthwhile.

#### The Transport Market

1.07 As a direct result of its mandate to support only economically worthwhile development projects, the Bank has thus been concerned with the efficient functioning of the market for transport services as a whole. It has also recognized that this market is so complex, as to the range of demands -- in terms of timing, speed, regularity and security -- which need to be met, that efficient decisions can only be expected if the individual shipper or traveller is free to the maximum extent possible to choose among alternatives for the particular shipment or journey he has to make: perhaps one day a fast, expensive mode because time is precious, and the following day, for the same movement, to the same destination, a much slower or more roundabout route, because time is no longer so pressing. The Bank's view of how the transport market should work can be summarized in four basic principles:

- (a) reliance on competition to keep the industry dynamic;

- (b) adoption of pricing structures and price levels that reflect real resource and social costs;
- (c) creation of regulatory environments that encourage enterprise, innovation, risk-taking, decentralized decision-making, and adequate safety levels; and
- (d) equitable treatment of all modes in their access to capital, foreign exchange, and markets.

These principles are neutral as to the private or social ownership of production and distribution assets. They are consistent with the political objective of providing equitable access for all people to suitable transport. Application of them should lead to transport operating enterprises being financially viable if they are to remain in existence.

1.08 Current reality, in developed and developing countries alike, deviates from these principles in many respects due to traditions, sectional political pressures, and the power of established transport interests. Regulatory laws -- many of them dating from attempts to protect the transport industry against the Depression of the 1930s -- extend well beyond the basic requirements of proper safety and technical standards, to hinder competition with established transport companies and to dampen innovation. Pricing below real resource costs has been practiced on numerous grounds, such as national prestige or security, the fight against inflation, the protection of disadvantaged regions or classes, or the sheer difficulty of changing, all of more political appeal than objective economic merit. The provision of protection and state subsidies has raised the need for still further state supervision, which has sometimes added to the inhibitions to innovation and encouraged more direct intervention of political forces. Broader economic controls -- such as administrative rationing of foreign exchange -- have also impinged seriously on the transport sector in developing countries.

1.09 Given this background, the practical problem facing the Bank has been to help countries avoid the more extreme distortions and move in the direction of reducing protection, regulation and subsidization and facilitating competition and innovation. Even these objectives have been very difficult to fulfil. The Bank has helped to reduce economic regulation of the transport industry in such countries as Pakistan (especially in the 1960s), Kenya, Korea and Brazil. Nevertheless, movement has often been slow and partial -- with particular improvements sometimes being later reversed -- mainly because of the considerable political power of the interests built up during the long periods of regulation.

1.10 The Bank has promoted studies to help rationalize the structure of road user charges in a large number of countries. While undesirable changes were thereby sometimes forestalled, positive improvements resulting from these studies have been very few. A few urban transport projects and components have helped to bring the real costs of car use closer to the economic costs -- by measures such as restriction of cars to certain lanes, control of parking and, in some cases, taxation of parking -- but nowhere, except possibly in Singapore, are car-drivers yet paying the congestion and environmental costs they impose on others. Almost all of the Bank's railway

borrowers have fallen short on financial objectives agreed with them, and many have received increasing state subsidization.

1.11 Now, however, there are numerous signs that this situation is changing and that governments are increasingly ready to undertake reforms. Moreover the dominant tendency is for these reforms to be in the direction of relying more on the market, and improving its operation. Just within the last few years, for example, borrowing countries which had hitherto been reluctant to act have begun to introduce measures long advocated by the Bank. These include reduced regulation of the trucking industry, closure of loss-making state-owned transport enterprises, and the encouragement of private-sector provision of public passenger services. Other steps have involved adjusting road user charges (by raising the tax on diesel fuel), reducing railway deficits, and introducing scarcity pricing of state-owned transport facilities where capacity is in short supply. While examples can also be cited of recent reforms tending to restrict competition and increase regulation, they are considerably fewer in number. Some major reviews of transport policy have been undertaken by governments themselves, and others started under new Bank loans.

1.12 Efforts to improve the functioning of the transport market can yield distributive as well as efficiency benefits. Existing imperfections in the market tend to discriminate more seriously against the poor than the rich. First, the inefficiencies and resultant extra financial burdens on public finances reduce the resources available for programs, such as improvement of rural or slum roads, which can do most to improve the access of the poor to employment opportunities. Second, the traditional regulatory measures often protect established large-scale operators and discourage non-conventional solutions (ranging from animal-drawn carts to lower-priced off-peak services on major facilities), which can sometimes be run by the poor and would often be most used by them.

1.13 Subsidization of transport, though often justified politically on grounds of protecting the poor and occasionally needed to compensate for other unavoidable market imperfections, has not generally been found an effective way of transferring income to them. Too frequently, it tends to discourage better adapted and more economical local initiatives. When transport reforms are introduced, accompanying measures are sometimes needed in other areas such as regulations governing the provision of credit, property-titling and control over monopolistic activities to assure equitable access of the poor to the market.

1.14 Reforms in transport are seldom easy, and they cannot be expected to be accomplished very quickly. While lagging economic growth and consequent shortage of resources necessitate more urgent action, they also create a political environment in which some reforms are harder to introduce. The weight of the evidence suggests, however, a new preparedness of governments painstakingly to build up the constituency for reform, and to introduce appropriate measures once such a foundation has been laid.

1.15 Three principal reasons probably account for this new receptivity to reform. The most important is the more difficult situation, as regards

both budgetary resources and foreign exchange availability, in which governments find themselves as a result of the slower economic growth of the last few years and the sharp increase in the relative price of imported energy. The search is on for ways of saving resources, and especially in the transport sector. It has traditionally been a major user of public budgetary funds. It has now become a much more significant burden on the balance of payments due to its dependence on liquid fuels and the large shares of export earnings now spent by many countries on importation of such fuels.

1.16 Second, the important changes in relative prices, particularly for fuel, affect the comparative advantages of the different transport modes in such a way that in many countries there should be shifts of traffic at the margin from one mode to another. Such shifts, and the equally or more important fuel-economizing measures that can be taken within modes, will result mainly from properly reflecting costs in prices and from removing or reducing past regulatory and institutional obstacles to flexible operation of the transport sector. Marginal shifts of traffic have begun to occur towards coastal shipping and/or railways in several cases. This provides concrete demonstration of the gains to be had from making the transport market work better.

1.17 Third, transport networks have become more complex and more integrated, with customers using increasingly sophisticated analytical approaches to minimizing total distribution costs. This adds further to the importance of pricing transport services properly and making markets function more flexibly. As the infrastructures for different modes of transport are built up, the services offered on each have to function in a more coordinated manner, new types of intermodal terminal are needed, and special equipment has been developed to facilitate intermodal transfer. The growing role of international trade has required improved coordination of transport, and increased standardization of equipment and procedures, across international frontiers.

1.18 Containers, of internationally agreed dimensions, are a major expression of this trend. When they are moved on a single contract covering the total movement from point of origin in one country to final destination in another, the transport operator responsible has great flexibility to decide among alternative routings and combinations of modes. Methodologies have also been developed in recent years to assist people who have to make decisions about the movement of freight, whether national or international, to compare alternatives more systematically. This is the discipline usually called Physical Distribution Management (PDM) in North America or logistics in continental Europe. It is often advantageous to consider, conjointly with transport alternatives, changes in the subdivision of stages in the production process and different locational patterns of plants and warehouses. All these developments give the prices charged for transport more practical significance than they had in the past.

### Conclusion

1.19 There are thus new possibilities for the transport sector to serve countries' broader development objectives considerably more efficiently and

effectively than in the past. The Bank has a special opportunity and responsibility to help achieve these possibilities, which are consistent with its concern to contribute simultaneously to improvement of growth and of equity. The opportunity results particularly from the emerging readiness of countries to implement reforms which have been considered politically too difficult in the past. The responsibility arises from the fact that the Bank, among all international, regional and bilateral aid agencies, has the widest mandate across the different modes and by far the largest and broadest experience in transport. Moreover, there is no World Transport Organization, or even Association; there are only modal bodies such as the UN's ICAO in aviation, the UIC (Union Internationale des Chemins de Fer) in railways, and the privately-financed IRF (International Road Federation) in roads. In the United Nations it is only the small transport units in the Regional Economic Commissions, and to some extent UNCTAD, which have responsibilities covering all the modes. To fulfil this opportunity and responsibility the Bank has built up a staff that includes at least some specialists in each of the major transport modes, and it has to further develop the capability of all the staff in the sector for transport policy analysis.

## II. Needs of the 1980s

2.01 This chapter is intended to identify the borrowing countries' main needs in the development of transport during the 1980s. It serves as a background for discussion in the following chapters of recent past trends in Bank assistance, and of proposed future directions. First, overall perspectives are drawn regarding the growth of transport demand and the availability of financial resources to cope with it. Attention is then given, in turn, to each of the six most important areas of need: (i) reinforcing maintenance capacities (including local civil construction industry); (ii) strengthening the performance of institutions in the transport sector; (iii) increasing energy efficiency in transport; (iv) improving rural transport networks; (v) supporting the expansion of international trade and; finally, (vi) overcoming the particularly serious transport problems of sub-Saharan Africa.

### Transport Demand and Investment

2.02 Demand for transport in the developing countries is likely to continue to grow faster than GNP. This is particularly true on the passenger side. Considerable evidence indicates that, at low income levels, demand for mobility tends to increase faster than for any other major class of good or service. In countries ranging from Brazil to India mechanized passenger movements increase, on a per capita basis, at least twice as fast as average incomes. For freight the picture is more varied, but the importance of agriculture and manufacturing in early and middle stages of development, and increasing regional specialization, mean that total freight movements also typically grow faster than overall GNP. Current emphases in many countries on increasing food and fuel production, on the one hand, and exports, on the other, are likely to reinforce this tendency.

2.03 There is little evidence to date of the 1970s' fuel price increases having a substantial direct effect on the overall quantity of transport

demanding in developing countries, relative to GNP. Even today fuel does not account for more than about 25% of the costs of transport. The relatively modest further real increases in fuel prices currently projected by the Bank for the 1980s are likely to be largely off-set by operational and technological improvements, especially in vehicles, that are already spreading.

2.04 Thus, even the 1.5% per capita income growth rate adopted in the 1981 World Development Report as the 'low case' for the low-income oil-importing countries in the 1980s is likely to mean, with a 2% population growth rate, annual increases of about 5.5% in passenger traffic and around 4.5% in freight traffic. Successful accomplishment of macroeconomic structural adjustment, and higher GNP growth rates, will mean correspondingly higher growth of transport demand.

2.05 Prospective investment requirements are determined not only by the future growth of traffic but also by various inheritances from the past. A number of major countries -- such as India, Mexico and Peru -- have now recognized that public investment in trunk transport facilities was allowed to decline to excessively low levels in the 1970s. They are making major efforts to prevent the recurrence of the bottlenecks to overall development that resulted. Second, in many countries a major renewal and rehabilitation cycle is imminent for the many large equipment purchases and infrastructure works, especially highways and bridges, that were undertaken in the 1950s and 1960s. Third, most developing countries face strong pressures, economic as well as social and political, to solve extensive problems of inaccessibility, or isolation, that still remain -- in growing urban slums far from jobs and services or from transport facilities for reaching them, as well as in rural areas distant from existing networks.

2.06 It will be hard for most countries to find the necessary investment funds, especially in foreign exchange. Domestic sources -- mainly tax revenues from transport users and operating surpluses of transport agencies -- already provide the large majority. But the transport sector as a whole, and individual modes within it, will need to attain higher levels of financial self-sufficiency in many countries. Public expenditures will need to be more strictly planned, to ensure that overall resource shortage does not result in transport becoming a bottleneck to broader development and that effort within transport is concentrated on highest-return projects. The burden on the public sector will need to be reduced by stimulating local and private initiatives.

2.07 The limited amounts of foreign assistance available -- from Arab and OPEC sources and export credit agencies, as well as from traditional multilateral and bilateral aid sources -- must be channelled to uses of the highest priority from the point of view of national transport development, rather than to prestige projects or support of uncompetitive equipment suppliers in industrialized countries. Foreign private investment has not played a very significant part in transport development in recent decades. But it could be encouraged to do more, especially in transport services (as opposed to infrastructure), in lending to financially viable transport

agencies (particularly ports which themselves generate foreign exchange), and in providing facilities to handle international traffic (e.g. in ports and container stations).

### Reinforcing Maintenance Capacities

2.08 Increasing the adequacy and improving the efficiency of maintenance are now top-priority needs in most developing countries. Growing shares of transportation budgets are going to maintenance: for routine maintenance and equipment servicing in the case of the operating budget, and for periodic work, overhauls, overlays and rehabilitation in the case of the investment budget. In the large expansion of transport networks over the last twenty years insufficient attention was often paid to the much more difficult job of building up capacities to maintain them over the long term. In addition, the present and prospective scarcity of resources for the transport sector means that existing facilities have got to be made to last longer. This often depends on regular preventive measures and timely remedial interventions, which in turn require staff attitudes and government procedures that are not built overnight. Thus institutional arrangements, financial mechanisms and human capacities have to be steadily reinforced for planning, budgeting, financing, supervising, executing and evaluating maintenance -- often on an increasingly decentralized basis, in order to deal adequately with the rural facilities as well as the trunk networks which contain most of the sunk investment.

2.09 To help limit the large budget increases inevitably required for maintenance, its efficiency must be increased substantially. Utilization of expensive equipment fleets is often appallingly low, sometimes one-fourth to one-third what could reasonably be expected. In many instances serious overstaffing of the public-sector maintenance organizations diverts funds from actual maintenance work. Both equipment- and labor-intensive methods have a cost-effective role to play, often in the same organization. But to achieve this, greater cost-consciousness and, above all, the will to take decisions on the basis of efficiency objectives, will be necessary. Policies of foreign lenders may sometimes have contributed to undermining efficiencies, e.g., in making finance for new equipment too easily available, by promoting an uneconomic proliferation of different makes and models of equipment through tied aid or other procurement regulations, and by supporting capital projects which divert the country's own resources from more critical recurrent needs. Concerted action by borrowers and lenders, including enhanced collaboration among different aid agencies, is needed to address these problems.

2.10 Maintenance capacity is not only a matter of procedures in public administrations. It is also a question of the availability of other enterprises, usually in the private sector, to carry out civil engineering and mechanical work. Railway maintenance is sufficiently specialized that, in the circumstances of most developing countries, most of it has to be done in-house, except perhaps for major line overhauls. But in the other transport modes numerous maintenance activities can readily be contracted out. Many middle-income countries are having increasing recourse to this

solution because they find it more efficient. In the case of those poorer countries which do not yet have strong private sectors, the regular annual maintenance load offers an excellent base for the development of small contractors and mechanical workshops. Achievement of these possibilities requires, principally, modernization of public-sector contracting procedures, increased training at both technician and management levels, and explicit recognition of the contracting industry as an important activity with its own problems and potential.

2.11 Two related aspects of transport operations which need increased attention in many countries, especially in the highways field, are safety and axle load control. Rapid expansion of highway transport has given rise to safety problems that are an increasing political issue in many developing countries, with annual losses of sizeable amounts, as much as 1% of GNP according to some studies. The development of new and larger trucks, combined with decreasing efficiency of railways in some countries, has caused axle loads on many highways to be substantially above the levels they were designed for. The economies of the new trucks, in addition to the difficulties of effective load control, indicate that the optimum long-run solution is to strengthen highway pavements sufficiently to carry them. In the meantime, however, more effective load control is essential to preserve existing pavements. Both issues again raise difficult problems of attitudes, discipline and enforcement which can only be overcome gradually.

#### Strengthening Institutional Performance

2.12 Important in most countries, and of overriding importance in some, is to increase the efficiency of transport operating agencies and state-owned enterprises, such as railways corporations, port authorities and public trucking and shipping companies. Partly it is a matter of more staff training, both in the technical aspects of their work and in management of others. While much depends, of course, on the scale and quality of the national educational system, most agencies should increase their own training programs, especially in management and the use of modern financial controls.

2.13 At least equally important with training is the structuring of responsibilities in such a way as to give the people involved clearer incentive to fulfil their task in the provision of transport as efficiently as possible. This applies at the level of allocating responsibilities among agencies as well as within them. The managements of transport service corporations need to be given clear overall financial performance targets, and as much flexibility as possible for deciding how to meet them, within an overall framework where others, operating in the same or different modes of transport, are equally free to compete with them. Within the organizations, financial management has to be strengthened and incentives need to be effectively tailored to inducing the best possible contributions from each employee to meeting the objectives selected by management in light of the corporate targets. Many state-owned transport companies are still run more like public administrations, hampered by slow and bureaucratic procedures and concerned less with meeting the demands of customers than with providing what they feel the public should need.



2.14 Thus policy reforms are needed in many countries to open up the transport sector to greater competition, to clarify and tighten the responsibilities of the state-owned enterprises, and to enhance managements' freedom of action for efficiently fulfilling those responsibilities. Such changes are relevant not only to mixed economies but equally to socialist systems, where the increased competition may be between own-account or specialist trucking enterprises, or among small para-transit (minibus, ridesharing and other departures from conventional modern bus service) operators, or between any of these and the railways. Since policy reform is necessarily a long and slow process, it is almost always a question of a step at a time in the right direction rather than reaching the optimum solution in one move.

2.15 Policy reforms themselves must be developed by central Government Ministries. Central planning authorities responsible for transport have thus both to broaden their horizons from investment planning to include also policy planning and to further strengthen the quality of investment planning. The policy reforms will help to steer demand more efficiently and to generate more effective response from transport operators. They will therefore affect the demand for infrastructure. Systems for registering these demands (such as regular traffic counts) and for planning the allocation of scarce budget resources to meet them, by maintenance, improvement and new construction, need to be substantially further improved. Basic principles of cost-benefit analysis have to be applied more rigorously. Well-known techniques, such as stage construction, spot improvements, adjustment of design standards, and scaling of new capacity in light of risk analysis, have to be used more fully, and attention paid to changing perspectives, resulting from research, as to how these techniques can best be applied. Maintenance and construction needs have to be considered more often in light of the funds available for both, and more account taken of the future maintenance burden which will be imposed by new construction.

#### Increasing Energy Efficiency

2.16 Energy economy has become a matter of concern to all countries as a result of the sixfold increase in the real price of petroleum in the 1970s. The share of oil-importing developing nations' total export earnings devoted to energy imports rose from 9% in 1970 to 26% in 1980, and much higher figures for particular countries such as Brazil and Turkey. Transport accounts for larger proportions of total oil consumption in developing countries than in most industrialized countries. But in the great majority of developing countries not more than 20% of the transport use is for cars, compared with more than double this figure in industrialized countries. Of the oil-importing developing countries' total energy import bill of \$74 billion in 1980 some 50% was for transport. A 5% saving by the transport sector would have released for other purposes an amount of foreign exchange about equal to Bank transport lending in that year.

2.17 There is scope for reducing the energy-intensity of transport in developing countries by considerably more than 5% -- by better vehicle operation and maintenance (driver and mechanic training and supervision),

more efficient utilization of vehicle fleets (e.g. less empty backhauls), gradual conversion of fleets to more energy-efficient vehicles, marginal shifts of traffic to less energy-intensive modes (usually water transport and railways) and improved urban traffic management. Since trucks and buses normally account for about half of transport's energy consumption in developing countries, they warrant most attention. For these changes to take place at an efficient pace, fuel prices have to reflect real supply costs, and vehicle taxation must not distort equipment renewal patterns. Information on the opportunities for fuel saving (e.g., by better driving practices) needs to be disseminated. And institutional bottlenecks which were previously less significant (as in urban traffic management, ports dealing with coastal shipping, and railways) have to be broken. Effective operation of the transport market has become considerably more important.

2.18 On the other hand, care has to be exercised to avoid simplistic policy changes or administrative controls which may in fact turn out either to be inefficient ways of saving fuel or not to save it at all. Experience with arbitrary time or distance limits on car and truck operation has generally been poor. Projections of traffic that will return to railways due to the lower energy consumption of mainline railway operations must pay very careful attention to the considerations of speed, regularity, reliability, convenience and security which caused the traffic to move to other modes in the first place. Even now railway electrification is normally economic only with high traffic densities, in excess of 10 million gross tons p.a. Energy considerations are seldom a convincing reason for not closing unremunerative railway lines since lightly loaded trains are generally much less fuel-efficient than trucks and buses.

#### Improving Rural Transport Networks

2.19 Rural transport improvements, especially the improvement of rural roads, have been a major emphasis in many countries during the 1970s. They should continue to be so, in support of development strategies emphasizing rural areas and agricultural growth, to provide food and fuel, to incorporate the rural poor more effectively in the development process, and to generate export earnings. In many areas the need now is to carry earlier improvements a step further, to cope with increasing flows of agricultural inputs and outputs, and of passengers. Other extensive areas have still to be opened up to modern transport in some countries. In such cases particular care is needed to select economical routes and modes of transport: thus light aviation services, with their flexibility and much lower initial capital requirements and investment risk, can prove preferable in some cases to an immediate commitment to building a long road. For local transport, which accounts for the large majority of rural movements, more attention needs to be given to building simple tracks suitable for non-conventional vehicles and to encouraging the use of such vehicles.

2.20 For construction and maintenance of either rural roads or tracks it is now clear that labor-intensive techniques, whether under management of contractors, communities or Government departments, have great potential in

many developing countries. Such techniques are not only more efficient -- in the sense of accomplishing the job for lower cost -- but they are often more reliable (because less dependent on imports) and help meet the important need to generate local employment. Their use can also be organized in such a way as to reduce the financial burden on central Government. Successful experimentation took place in the 1970s with the use of labor-intensive techniques on a sizeable scale in a variety of countries where they had not been customary. Now they need to be applied in a larger range of works -- construction and maintenance not only of rural roads but also of many other forms of rural infrastructure, such as water systems, conservation works, rural electrification, etc. The key problem is developing local organization, foremen and supervisors; once developed, they can readily be applied to other works besides roads.

2.21 Two other tendencies that have emerged in rural transport improvement in a wide range of countries in the 1970s also need reinforcing and spreading: planning in the framework of broader development, and local participation in planning and construction. Evidently the areas where there is the greatest need for transport investments in a country, and where they can have the most substantial impact, are those where more than usual effort is being made at broader development, whether immediately productive or social, whether by public or private initiative. Institutional arrangements for local people to participate in transport planning, through a district development or village road committee, with a requirement that they also contribute part of the costs (e.g. land, local materials, part or all of the labor), help to indicate where the real needs are, to adjust designs better to local circumstances, and to improve the chances of adequate maintenance. The most promising solutions to the difficult problems of rural road maintenance appear to lie in cooperation and cost-sharing between the local community and the public technical agency.

#### Supporting International Trade Expansion

2.22 International trade is likely to impose larger requirements for transport investment in the developing countries in the 1980s than in the 1970s. First, the share of world output traded internationally has been expanding fast, from 12% in 1970 to 23% in 1980, and it has been projected that it could well reach 30% by 1990.<sup>1/</sup> Second, the search for new energy sources is giving rise to some large investments in production of fuels for export in developing countries. Third, the containerization revolution has spread to developing countries more rapidly than expected only a few years ago, and full benefit of containers is obtained when they are stuffed and unstuffed at or close to the inland origin or final destination of goods rather than at ports. Fourth, larger proportions of international trade in some regions are tending to travel overland, by rail or road, partly because of the high energy costs of circuitous sea voyages.

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<sup>1/</sup> Bela Balassa, "Prospects of Trade in Manufactured Goods between Industrial and Developing Countries", Journal of Policy Modelling, Vol. II, No. 3, 1980.

2.23 Thus substantial investments will be required in bulk-handling facilities, in conversion of ports to handle containers efficiently, in expansion of airports (which already handle 25-30% of international trade, by value, in some countries), in strengthening road and rail facilities to cope with inland movement and international transit of containers and other international trade, and in development of container freight stations, 'dry ports' and terminals. Efficient planning and staging of these investments will be particularly important. Large capital costs are frequently involved, and the timely availability of efficient facilities for handling international trade will be one important determinant of developing countries' success in expanding their exports.

2.24 The rather capital-intensive nature of the new techniques for transport of international trade puts a greater premium than in the past on operating efficiency, particularly at ports and other intermodal exchange points. International sea-ports often enjoy semi-monopolistic situations, which have given rise to slow and bureaucratic procedures and severely restrictive labor practices. Special efforts will be needed to improve operating efficiency. In addition, there is a need to spread more fully to the developing countries the trade and transport 'facilitation' measures which have been developed and applied with such success in Europe over the past thirty years -- simplification of international trade documents and border-crossing formalities, the TIR (International Road Transport) customs guarantee system, international vehicle licensing and insurance, transit arrangements, harmonization of driving rules and signs, axle-load agreements, etc.

#### Assisting sub-Saharan Africa

2.25 A particular priority for the Bank, and indeed the international aid community more generally, in the 1980s is to help sub-Saharan Africa overcome its unusually difficult transport problems. On the one hand, the vast size of the continent and of most of the countries, relative to their populations, mean that transport is a major consideration in almost any undertaking. On the other hand, extreme shortage of experienced technical and managerial manpower, and poor organization in some countries of that which there is, have caused many of the main transport systems to become less efficient over the years. Improvement of African transport has repeatedly been identified as a very high priority by the U.N., African regional bodies and the Bank's own report on 'Accelerated Development in sub-Saharan Africa.'

2.26 Most of the points made in the previous pages apply to sub-Saharan Africa, but always with special emphasis on the aspect of improving maintenance and operation of facilities. For example, the international trade needs of the many landlocked countries in Africa require greatly improved operation and maintenance of the existing rail, road and waterway systems, including transport facilitation measures, rather than significant expansion of the systems. As regards the national road systems, while additions are needed in many countries to the secondary and tertiary network and in some to the trunk network, an even higher priority in most countries is to improve maintenance of what already exists. Indeed in some countries even existing networks are by necessity being cut back due to inability to maintain them.

2.27 Thus the overriding requirement in the transport sector in sub-Saharan Africa is capacity-building and training, with particular stress on capacities for managing and executing the maintenance of civil works and mechanical equipment and the operation of complex transport systems. The shortage of experienced managers makes it particularly important to break down tasks in transportation construction, maintenance or operation as much as possible into sub-units, with clearly defined goals and incentives, that can help develop the managerial capabilities of the personnel available. Many enterprises running one or a few buses or a small contracting operation have proven highly successful in Africa. Similar principles can be applied in restructuring of larger transport undertakings.

### III. Recent Trends in Bank Activity

3.01 This chapter assesses recent trends in Bank transport lending and related activity in light of the needs and issues identified. Main statistical facts are presented first, followed by a review of transport lending in terms of the Bank's standard indicators of project performance. Then recent trends in the substantive content of lending and advice are evaluated under five main headings: (i) Infrastructure Maintenance and Operation, (ii) Sector Policy Reform, (iii) Energy Conservation, (iv) Rural Transport Development and (v) International Trade Support. Research and policy work is dealt with, as relevant, under each of these headings, and summed up in a final brief section devoted to Research and External Relations.

#### Distribution of Lending

3.02 Over the five years FY77-81 the Bank lent US\$8.6 billion for transport, nearly 18% of its total lending. As shown below, approximately US\$6.6 billion went to transport projects and some \$2.0 billion to transport components included in non-transport projects:

Table 3.1  
Bank/IDA Lending for Transportation FY77-81

| <u>Fiscal Year</u> | <u>Transport Projects</u>        |  | <u>Transport Components in Non-Transport Projects</u> |  | <u>Total Lending for Transport</u> |  |
|--------------------|----------------------------------|--|---|--|------------------------------------|--|
|                    | <u>Amount</u><br><u>(\$ mln)</u> | <u>Share of</u><br><u>Total Bank</u><br><u>Lending</u> | <u>Amount</u><br><u>(\$ mln)</u>                      | <u>Share of</u><br><u>Total Bank</u><br><u>Lending</u> | <u>Amount</u><br><u>(\$ mln)</u>   | <u>Share of</u><br><u>Total Bank</u><br><u>Lending</u> |
|                    |                                  | <u>(%)</u>   |   | <u>(%)</u>   |                                    | <u>(%)</u>   |
| 1977               | 1,048                            | 14.8   | 275   | 3.9  | 1,323                              | 18.7   |
| 1978               | 1,093                            | 13.0   | 600   | 7.1  | 1,693                              | 20.1   |
| 1979               | 1,904                            | 19.0   | 322   | 3.2  | 2,227                              | 22.2   |
| 1980               | 1,444                            | 12.6   | 396   | 3.5  | 1,840                              | 16.1   |
| 1981               | <u>1,124</u>                     | 9.1  | <u>400</u> a/   | 3.3  | <u>1,524</u>                       | 12.4   |
|                    | <u>6,613</u>                     |  | <u>1,993</u>  |  | <u>8,607</u>                       |  |
| Weighted Average   |                                  | <u>13.4</u>  |   | <u>4.0</u>   |                                    | <u>17.4</u>  |

a/ approximate.

The declining share of total Bank lending devoted directly or indirectly to transport reflects the increase of lending for agriculture and rural development, energy and structural adjustment.

3.03 About 30-32 transport projects have been approved each year, while the transport components are spread among some 70 projects in other sectors each year. Highways have been increasingly important among transport projects. The volume of lending for railways, ports and aviation remained steady between FY72-76 and FY77-81 in current dollar terms, but doubled for highways. In the second period highways have accounted for well over 60% of transport lending in all Regions except South Asia where railway lending led. As regards the components lending, about half is for rural (and forestry) roads, and fishing ports, included in agriculture and rural development projects, and about one-quarter for urban transport improvements. Other components are principally for transport infrastructure in industrial and mining projects, and for ships acquired through development finance companies.

3.04 Transport projects have become more complex, with larger numbers of elements, and more diversified. Highway Sector Lending started in 1977, and some features of the sector lending approach have also been incorporated in an increasing number of rural roads projects. Loans for other new types of project have been made -- for instance, within the last three years, multi-modal fertilizer distribution projects, construction industry projects, regional railway projects and a national bus services project. Many loans have represented the Bank's first involvement in a particular mode in a country -- such as ports in Uruguay, highways in Turkey, railways in Ghana, rural roads in India or highways in Romania.

3.05 Table 3.2 gives an approximate percentage breakdown of FY77-81 lending for transport by type of project in which it was included and by end-use.

Table 3.2  
FY77-81 Lending for Transportation by End-Use  
(percent of total)

| Type of Project | Hiways <sup>a/</sup> | Rrl.Rds. | Dom. Water       | Ports | Rlwys | Aviation | Total |
|-----------------|----------------------|----------|------------------|-------|-------|----------|-------|
| Highways        | 38                   | 9        | .. <sup>b/</sup> | -     | -     | -        | 47    |
| Other Transpt.  | ..                   | -        | 3                | 8     | 17    | 2        | 30    |
| Rural Dev.      | -                    | 10       | 1                | -     | ..    | ..       | 11    |
| Other           | 9                    | -        | ..               | 2     | 1     | ..       | 12    |
|                 | 47                   | 19       | 4                | 10    | 18    | 2        | 100   |

<sup>a/</sup> includes maintenance and construction, inter-urban and urban.  
<sup>b/</sup> means more than 0 but less than 0.5%.

Urban transport accounts for a very small share of the transport projects, whereas rural roads have rapidly increased in importance. Thus it can be estimated that some 3.5-4.0% of total Bank lending (somewhat over 20% of all lending for transport) has gone to local rural transport infrastructure, compared with less than half these amounts for local urban transport infrastructure.

3.06 Transport lending provides mainly for infrastructure improvement and equipment purchase, but technical assistance is an important and growing feature of projects. It increased from \$34 million in FY74 to \$74 million in FY79 and \$124 million in FY81, when 33% of the total was for supervision/implementation engineering; 16% for training; 16% for technical and feasibility studies; and 35% for costing, financial and management information systems and other experts. Many of the technical assistance components were related to maintenance and sector policy studies being financed increasingly in all modes.

3.07 In regard to geographical distribution it is noteworthy that over 40% of all transport projects approved in FY77-81 were for sub-Saharan Africa. These accounted for little more than 20% of total transport lending because the average loan/credit size (\$22 million) was lower than in all other Regions (\$50 million or more). When transport projects in North Africa and the transport components of other projects are taken into account, about 50% of all transport projects and 30% of total lending for transport went to the African continent. LAC has been the largest recipient of transport lending in dollar terms, particularly for highways and railways. Port lending has been concentrated in EMENA and East Asia.

3.08 Co-financing has been very important for railway projects, which often show a higher ratio of co-financing to Bank lending than any other Bank-supported sector. It has been of increasing importance in ports and highways, spreading from the equipment elements of the projects to cover also part of the civil works in more cases. However, total amounts so raised, relative to the volume of Bank lending, remain below the Bankwide average for all sectors. The Bank's share in project cost financing averages about 40% in highways and ports, but only 14% in railway projects, reflecting the time-slice definition of these projects and the importance of co-financing.

#### Project Performance Indicators

3.09 Bank-assisted transport projects have usually yielded very satisfactory economic returns. For instance, the ex-post return estimates for the 61 transport projects re-evaluated by OED over the last three years (CY79-81) average 22%, the same as the appraisal estimates. About 25% of the projects are now estimated to yield less than 15% rate of return, compared with 15% which were expected to do so. Only 5 projects, or 8% of the total, are expected to yield less than 10% return. The projects covered in the OED audits were mostly appraised in the early 1970s, so they reflect the full impact of the economic vicissitudes of that decade.

3.10 Analysis of the OED results by mode and category shows that the significant distinctions among projects are between highways and other modes, and between sub-Saharan Africa and other parts of the world. As Table 3.3

shows, the highway projects tend to show noticeably better results than those for other modes, while, for transport projects generally, sub-Saharan Africa shows worse results than elsewhere.

Table 3.3  
Economic Performance of Transport Projects Audited CY79-81

|                   | No. of Projects | Av. Econ. Returns  |                  | Percent of Proj. w/Returns |            |            |
|-------------------|-----------------|--------------------|------------------|----------------------------|------------|------------|
|                   |                 | Appraisal Estimate | Estimated Actual | -less than Appraised       | -below 15% | -below 10% |
| Highways          | 34              | 22                 | 24               | 26                         | 18         | 9          |
| Other Modes       | 27              | 22                 | 19               | 59                         | 37         | 7          |
| All Transport     | <u>61</u>       | <u>22</u>          | <u>22</u>        | <u>41</u>                  | <u>26</u>  | <u>8</u>   |
| sub-Sahara Africa | 20              | 21                 | 19               | 40                         | 35         | 15         |
| Other Regions     | 41              | 22                 | 23               | 41                         | 22         | 5          |

The relatively poorer showing of African projects reflects mainly comparatively slow traffic growth and continued operational problems in many cases. As regards the distinction between highways and other modes, worldwide, the main explanations are traffic shortfalls and limited efficiency improvements, particularly in some of the railway projects, and major cost overruns on some port and airport projects. It is noteworthy, however, that the substantial number of railway projects included, 14 in total, show better levels of economic return than those audited earlier.

3.11 Except in ports, borrower financial performance was much more disappointing than project economic return. Actual financial returns on average net fixed assets were below expected in all but one of the 14 railway cases. In the airport projects returns were lower in three cases and higher in one, as compared with higher than expected financial returns in four of the six port projects. While traffic shortfalls tend to reflect themselves in both economic and financial returns, the largest reason for the weak overall financial performance of the railway and airport borrowers was failure to move tariffs up in line with inflation.

3.12 In terms of general project implementation experience the 235 transport projects under supervision in late 1981 appear marginally better than two other large lending sectors and the Bankwide average:

|                                 | Projects under Supervision: % with<br><u>"No"/"Moderate"/"Major" Problems</u> |                   |                   |
|---------------------------------|---|-------------------|-------------------|
|                                 | <u>Sept. 1979</u>   | <u>Sept. 1980</u> | <u>Sept. 1981</u> |
| Agriculture & Rural Development | 27/61/12  | 28/62/10          | 23/65/12          |
| Electric Power                  | 36/47/17  | 40/51/9           | 34/47/19          |
| Transportation                  | 40/53/7   | 42/48/10          | 36/57/7           |
| All-Sector Average              | 36/54/10  | 36/55/9           | 31/58/11          |



However, disbursement performance has been deteriorating. Shortfalls of actual disbursements from predicted amounts rose from 25% in FY80 to 32% in FY81 for transport projects, at the same time as overall Bank figures improved from 28% to 26%. The main problem appears to be tighter-than-expected budgetary constraints in the borrowing countries, causing shortage of counterpart funds and consequent delay in project execution; sometimes the project has to be recast. Transport projects, in the Bank's experience, have been particularly subject to serious time overruns -- often leading to cost overruns, but sometimes also caused by them -- and current budgetary stringencies in the countries appear to be exacerbating the problem.

### Infrastructure Maintenance and Operation

3.13 Improvement of the maintenance and operation of infrastructure has been the overriding theme of Bank transportation lending in the last few years. All the major modes have seen some projects entirely devoted to this purpose, while numerous projects have combined the two objectives of improving maintenance and building new transport capacity. And most of the new capacity has been in the form of selective upgrading of existing facilities rather than building of entirely new works.

3.14 Perhaps the key change from the past was the full realization of two points: first, that better operation and maintenance depended on an active program of support (rather than general borrower commitment in a loan covenant) and, second, that such a program may have to cover several of many important dimensions. Workshops and carefully selected equipment and spare parts are often insufficient. Assistance has usually also to be provided on selected items drawn from a longer list, including planning tools and disciplines, technical and attitudinal training, staff motivation, equipment objective. Railway projects further increased the attention given to locomotive maintenance, and results have begun to show -- even in Africa where earlier efforts had had least success.

3.15 The change in thinking was reported, and also reinforced, by a Bank paper on road maintenance prepared in 1979. It was based on the experience of past Bank projects and special case-studies of a few developing countries which had succeeded relatively well in developing maintenance capacity. Dramatic evidence was included of the high returns typically obtainable from incremental maintenance in developing countries. The Highway Design and Maintenance (HDM) model<sup>2/</sup> underlying that analysis -- the fruit of TWD research begun in the early 1970s -- has now been applied in preparation of more than 30 Bank projects and, in a number of countries, in regular planning; it has helped to win significant increases in the share of the national budget devoted to road maintenance in many countries. The paper also made numerous suggestions, on the basis of past experience, to help improve project design, and these are now implemented where applicable. It has been used as the basis for many seminars in borrowing countries (including several jointly with ECA for groups of African countries) -- and for a special meeting with 18 donor agencies, which has enhanced

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<sup>2/</sup> TWD, Highway Design and Maintenance Standards Model: Model Description and User's Manual (January, 1980).

collaboration on maintenance generally and led to greater co-financing of maintenance projects, especially in Africa. The paper was printed in 1981, including a brief statement of the main points of consensus reached at the co-donors' meeting.<sup>3/</sup>

3.16 An important dimension of the expanded approach to developing maintenance capacity is better and larger training programs in infrastructure agencies. Various new approaches have been applied in different projects, including particular attention to staff motivation. An increasingly widely used technique is the fully equipped Training Production Unit, which provides for learning by experience, with a skilled trainer to draw the lessons and correct mistakes.

3.17 The Bank has also been giving much greater attention to the development of private-sector capacity to carry out road maintenance operations -- and civil works construction more generally. While it has long been Bank policy to encourage the use of private contractors for periodic maintenance, recent evidence suggests that the difficulties of contracting out routine maintenance can be overcome, with resultant improvements in the quality and efficiency of work over that typically done by a public works department itself.<sup>4/</sup>

3.18 Since 1974, when a Bank policy on domestic construction industries was first issued, reviews have been undertaken in about 50 countries, most of them in the last five years. Follow-up actions have taken place in about half these cases, including provision of technical assistance through transport projects in 17 countries. Particularly important has been the combination of technical and financial assistance, normally channelled through local development banks, as undertaken in highway loans to Ethiopia, Ghana, Pakistan. In Nepal, Bangladesh and India (Bihar), recent road loans have included provisions for purchase of selected equipment for lease/rental to small local labor contractors, as well as technical assistance to the highway department to improve contract supervision and adherence to design standards. Where Government requires construction to be in the public sector, the Bank has provided concentrated technical (and some financial) assistance to the parastatal, as in PDRY, Burma and Algeria. In many cases improvement is also particularly needed in Government contracting procedures and administrative systems, and this has received attention in the cases mentioned and in others, notably Colombia and Indonesia. A review, distilling the lessons of Bank effort to date and setting main lines for future work on domestic construction industries, is currently underway.<sup>5/</sup>

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<sup>3/</sup> World Bank, The Road Maintenance Problem and International Assistance (December, 1981), now available also in French and Spanish.

<sup>4/</sup> TWD, An Appraisal of Highway Maintenance by Contract in Developing Countries (March, 1982).

<sup>5/</sup> TWD draft, The Construction Industry in Developing Countries (May, 1982).

3.19 Following its major research project on the applicability of labor-intensive construction techniques, in the first half of the 1970s, and the highly successful results of pilot projects in Kenya and Honduras in 1976-79, the Bank has also continued to encourage wider use of such techniques, especially for maintenance and construction of rural roads. It assisted the Mexican Ministry of Works to organize a conference to disseminate its extensive experience to other developing countries. Principal Bank project assistance has been in Benin, Malawi, Chad, Lesotho, Rwanda, Dominican Republic and the Philippines. The main constraint to a more rapid spread has been shortage of Bank staff-time for convincing countries to depart from past practices -- and a partly warranted, but nonetheless unfortunate, concern on the part of Regional Division Chiefs that they could not afford project components with relatively high administrative cost per dollar lent. The final written product of the Bank's research effort -- a manual on planning and managing labor-based construction -- is now with the printer.<sup>6/</sup>

3.20 A subject on which the Bank had done little but where project components are now rapidly increasing is highway safety. A review in 1981<sup>7/</sup> found that as many as 42 projects underway -- urban as well as highways -- had included some contribution in this area, often studies. In the last few years more projects have included more substantial actions, such as traffic regulation measures, road safety education and committees, vehicle inspection facilities, black spot improvements, police training, rescue equipment and driver training programs. The Bank has organized several seminars on the subject, and contributed to outside conferences. A consultant study was commissioned on the valuation of road accident costs, to help in further development of policy and intervention in this area.<sup>8/</sup>

3.21 In sum, it is clear that the Bank has had a major impact in the last few years in getting more adequate attention in its member countries to better operation and maintenance of transport infrastructure. Some of the new loan covenants it has used, such as those specifying the annual budgetary contributions that would be required for maintenance and the foreign exchange that would have to be provided for regular purchase of spare parts, have helped significantly, even if not always fulfilled to the letter. Progress has been made in most borrowing countries. But there is still a long way to go in bringing maintenance capacity to adequate levels. Mechanical maintenance -- whether of maintenance equipment fleets, railway rolling stock and locomotives, or port cargo-handling and dredging equipment -- remains a weak area in large numbers of borrowers, especially in Africa. Excessive axle-loads on highways are still a serious problem in many countries. The effort to strengthen maintenance has been largely concentrated so far on trunk transport facilities, and needs to be spread more fully to rural transport infrastructure.

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<sup>6/</sup> TWD, Labor-Based Construction Programs: A Practical Guide for Planning and Management.

<sup>7/</sup> TWD, Road Safety Components in Bank-Financed Projects (October, 1981).

<sup>8/</sup> TWD consultant report, The Costs of Road Accidents and the Valuation of Accident Prevention in Developing Countries (December, 1981).

## Sector Policy Reform

3.22 The potential for making the transport sector function better, and with less burden on the public exchequer, by policy reform has been a matter of rapidly rising concern in the Bank in the last few years. Mainly, this is the product of the same factors, noted in Chapter I, which have made Governments much more ready to consider reform. It was also stimulated by a 1980 review of the Bank's transport sector work<sup>9/</sup>, which recommended increased focus on transport services, especially regulation, pricing policies and subsidies, as opposed to infrastructure, with a view to increasing the sector's productivity and economizing on investment funds. The concern has been further fueled by a recently completed review of past lending to railways<sup>10/</sup>, where loss of traffic to other modes and rising state subsidies have been so frequent -- and so contrary to the Bank's projections when the loans were made.

3.23 Principal Bank effort until now has been directed to strengthening the individual modal agencies, making them more self-sufficient financially, and improving policies and processes regarding the planning of infrastructure investment. Over the years there have been notable results, which are continuing to occur. Creation of investment planning units, both in modal agencies and centrally, and gradual build-up of their competence and authority have been a persistent emphasis, supported by direct staff technical assistance and by relevant loan provisions. Another constant emphasis is on increasing the powers of agency managements to run their affairs efficiently, without excessive intervention by outside bodies. Important steps in that direction are being taken, for instance, under recent railway loans to Korea, Pakistan and Senegal.

3.24 Railway financial performance remains a serious problem, but the regular annual reviews of tariffs provided for in many recent railway and port loans have helped to reduce the Government delays in approving tariff adjustments for inflation which had had such adverse impact on financial viability. Increased attention has been given in railway loans to strengthening costing services, to help identify the scope for economies or the need for tariff adjustments. Some of the more recently completed studies of road user taxation have also contributed to the formulation of tax changes that became necessary in face of inflation. Although they affect a total of only about 15 countries to date, urban transport projects and project-components have made important contributions to improved urban traffic management and more efficient bus company operations; in a few cases, such as Costa Rica, they have helped secure more adequate urban parking charges to help ration scarce road space.

3.25 Results have also begun to accrue from the increased concern with the operation of the transport market as a whole, the environment within which any particular modal agency operates. The first sector report to follow the broader approach recommended in the 1980 review, on Indonesia, identified serious problems of heavy subsidization and excessive government control and regulation of transport services in almost all modes. Agreement

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9/ TWD, Review of Transport Sector Work (October, 1980).

10/ TWD, The Railways Problem (January, 1982).

was reached for the Government to prepare, with the help of studies under various Bank transport loans, an action program of reforms to improve the performance of the transport system.

3.26 Highway Sector loans can present particularly appropriate opportunity to deal with policy issues. Such a loan for Mexico in 1979 identified several priority issues, and a recent review indicated that significant action had been taken, particularly to make trunk road-freight services more competitive by licensing many more operators. Late in 1981 both Indonesia and Mexico took major actions to reduce road-transport fuel subsidies, which had also been an important subject of discussion. In 1979-81 the Bank gave extensive support to a major policy-oriented transport planning effort in Argentina, which was to be followed by a sector loan. A principal focus of a recent Highway Sector loan, to Colombia, is to resolve, with the aid of studies included in the project, regulatory problems and tax distortions which constitute serious obstacles to sector efficiency.

3.27 Multi-modal projects, which are largely new to Bank lending, have also been useful for dealing with sector policy issues. For instance, the Bangladesh Fertilizer Distribution Project, approved in 1981, helped improve transport market operation by strengthening procedures for award of transport contracts and by ensuring more adequate remuneration for transport serving remote areas. The Romania Land Transport Project (for roads and railways) provided for the development of more realistic and sophisticated methodologies for selecting optimum modes of transport and routings for shipments.

3.28 The Bank's renewed concern with sector policy has thus begun to reflect itself effectively in operations, and to assist reforms, particularly in Latin America. Bank transport sector work is being gradually extended to deal more adequately with policy issues wherever they are important. Various public statements have been made by Bank staff drawing attention to these areas<sup>11/</sup>, and a limited amount of supportive research undertaken.<sup>12/</sup> Studies much fuller than the Bank itself can do are generally required to deepen understanding of a problem, analyze alternative solutions appropriate to a particular country's circumstances, and develop support for the chosen one. Nevertheless, Bank sector work has an important role to play in identifying priority issues for attention. Particularly crucial is Bank staff effort to follow up substantively on studies agreed to be made under loans, and to encourage, and assist, implementation of the results.

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<sup>11/</sup> e.g. "Key Issues of the 1980s" at World Conference on Transport Research, April 1980; "Maximizing the Contribution of Highways to Development in the 1980s" at Latin American Conference on Highway Technology for Developing Countries, February 1981; "The Future of Road Transportation: Restraint or Release" at International Road Federation World Conference, June 1981; "Agenda for Partnership" at World Congress of International Road Transport Union, May 1982.

<sup>12/</sup> e.g. on practical approaches to the rail line closure problem and, still on-going, on road user taxation and road transport regulation.

## Energy Conservation

3.29 The main emphases in the Bank's approach to energy issues in transport have been, on the one hand, to encourage countries to price fuels at least at their opportunity costs and allow the transport market to respond freely and, on the other hand, to urge great caution about major infrastructure investments narrowly designed to save fuel. Fuel pricing is a subject of such importance, political as well as economic, that it is often taken up not only in discussion of transport loans but also, and sometimes more, in general policy dialogues with Governments, or in connection with energy and structural adjustment loans. Excessively low prices of liquid fuels have been prevalent in oil-producing countries, and Bank dialogue has helped to bring about significant increases in several, especially in Latin America. The more widespread problem has been diesel fuel prices either somewhat below opportunity costs, or so much below those for gasoline as to cause uneconomic diversion of demand to diesel. Adjustments have been made in several countries recently -- for instance, Haiti, Korea and Zaire -- as a direct result of Bank advice. Unrealistic investment schemes propounded as major energy-savers generally involve substantial expansion of railway capacity (in the hope of drawing traffic away from road and air) or railway electrification; Bank analysis has helped a number of Governments, especially in middle-income countries, to see the flaws in such proposals.

3.30 The Bank has also contributed to breaking the institutional bottlenecks preventing better fuel efficiency in transport. Projects financed in recent years which directly served this purpose include creation of an electrified suburban surface rail system in Porto Alegre (Brazil), modernization of inland water transport facilities on the Chao Phya river in Thailand, and urban transport projects stressing traffic management in Abidjan and Bangkok. All have direct energy-saving impact, and potential broader 'demonstration' effects. Most railway projects and project-components also contribute to the same general objective by helping overcome the managerial weaknesses constraining the development of railway traffic, and by introducing technical changes -- e.g., use of unit and block trains -- that are cost efficient overall and energy-saving. In addition, the Bank has actively promoted the preparation of innovative projects which could have useful energy-saving effects, such as inter-modal transport, making more use of coastal shipping, between north and south in Brazil and along the coast of Peru. Bank-sponsored studies on energy conservation in transport have been undertaken in a number of countries, particularly India and Indonesia.

3.31 Staff seminars on energy problems in transport were organized in early 1981 and 1982, and an overall review of the subject, with special emphasis on conservation measures for developing countries, has just been completed.<sup>13/</sup> The review demonstrates that efficient use of energy in transport is so intimately tied with general operation of the transport market that the issue is best taken up within broader transport sector work. The market does need to be assisted by more active dissemination of conservation techniques, such as by driver training programs which have only begun to feature in Bank projects.

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<sup>13/</sup> TWD draft, Energy and Transport in Developing Countries: Towards Achieving Greater Energy Efficiency (August, 1982).

More attention is also needed to import, excise and license fees on vehicles and spares, to ensure they do not inhibit fleet modernization, which is likely to be one of the most significant means to save fuel.

3.32 Assessments of road user taxation in Bank transport sector work and highway appraisals have been limited too often to consideration of the overall budget balance between highway revenues and expenditures. Little attention has been given to the structure of road user taxes, in terms of how they relate to the costs imposed by different classes of road user and how the different charges may affect user decisions. Road user taxation has long been a controversial area both within and outside the Bank. It is complicated by gaps in basic knowledge of road deterioration processes and by the fact that one of the adjustments most needed -- to charge more adequately for congestion -- has proven politically very difficult to introduce. However, a broad consensus has been developing in the Bank over the last few years around the principles of basing charges affecting direct road usage on avoidable (short-run marginal) costs, collecting other attributable costs in the form of fixed annual taxes, and distributing any residual cost among users in inverse proportion to demand elasticity. The main vehicle for charging avoidable costs is fuel tax, which raises complex substitution and distributional issues, exacerbated by the fuel price increases of the 1970s. Thus, while more attention should be given now in appraisals to ensuring that all major classes of vehicle pay at least their avoidable costs in the form of use-related taxes, research is needed to refine the Bank's capacity to advise on road taxation structures more fully. This research has been put underway.

#### Rural Transport Development

3.33 Bank lending for rural transport infrastructure steadily increased through the 1970s, both in absolute terms and as a share of total lending, rising from less than 2% in the early 1970s to some 3.5-4.0% in the last few years. Agriculture and Rural Development projects (mainly the latter which tend to have larger road components) have risen from accounting for a quarter to one half of the total rural transport lending. But also as much as 20-30% of annual highway project lending is now devoted to rural roads.

3.34 There have been two main substantive thrusts in this lending in recent years. First, more effective arrangements have been sought for building and subsequent maintenance, especially in the Rural Development projects where these aspects had sometimes been neglected previously. Second, more emphasis has been given to planning more integrated with that for other sectors, and to action to ensure that the complementary agricultural activities needed to secure full benefits do take place in timely fashion. The latter point was part of the reason for handling an increased proportion of rural roads through Rural Development projects and it needed particular attention in the transport projects in view of poor earlier experience. The vast majority of the investment has been in rural roads, but individual loans have also included components for small general-purpose and fishing ports, rural aviation facilities, and occasional complementary assistance for purchase of specialized or adapted (appropriate technology) vehicles and vessels. Transport dimensions of Rural Development projects

have not always received expert attention on aspects such as construction standards, phasing of investment and integration with existing network. Cooperation between the Bank's Agriculture and Transport Divisions has now improved considerably, though it needs continuing attention.

3.35 Institution-building efforts in this field, which have naturally been carried mainly by the transport projects, have tended to stress (a) creation of a separate rural roads unit within the responsible central Ministry, (b) decentralized arrangements for road selection and planning, under national guidelines, at the province or county level, (c) gradual build-up, with the help of the central unit, of decentralized capability for administration of construction and maintenance, and (d) maximum reliance on private (or community) enterprise for carrying out the construction and maintenance work and providing transport services.

3.36 Particularly important contributions on all or several of these dimensions have been made in Colombia, Ecuador, Ethiopia, India (Bihar), Kenya, and Tunisia, as well as in several West African countries which benefitted from the services of the Feeder Roads Unit in the Bank's Abidjan office. A few projects in rural roads and rural development have helped specifically to develop community-level involvement in planning and local contribution to construction, whether in the form of materials and land, or of labor paid at less than national wage rates: principally Kenya Rural Access Roads, Korea Rural Infrastructure, Mexico PIDER and Haiti Rural Development.

3.37 The expansion of the Bank's rural roads effort has been supported by policy and research work following lines identified in a 1977 paper<sup>14/</sup> but limited by budget constraints. Particular attention has gone to appraisal techniques emphasizing complementary agricultural activity, to less expensive means for effectively screening and selecting roads before embarking on full economic analysis, and to better understanding of rural roads' impact on passenger movements and access to public services<sup>15/</sup>. One result has been agreement with Government in several projects on use of

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<sup>14/</sup> TWD, Note on Rural Road Lending (December, 1977).

<sup>15/</sup> The work has been done in connection with Bank-assisted projects where possible and independent of them where necessary, and has been mainly in Brazil, Colombia, Honduras, India (Bihar), Indonesia, Mexico and Tunisia. An important recent report separate from normal Bank project documents was that on the Mexico Rural Mobility and Communications Study (August, 1981).



various measures of social and distributional benefits as a supplementary criterion in selecting roads, helping emphasis on the relief of poverty. A paper was recently completed summarizing results of an extensive comparative review of countries' institutional structures and arrangements for handling rural roads<sup>16/</sup>. A broader review on rural transport services, bringing in regulatory and pricing aspects and the user viewpoint, as well as issues of appropriate vehicles and track technology, is about to be completed. The role of aviation as a less expensive alternative to rural roads for opening up remote areas was explored, and analytical methods developed, in a widely circulated 1980 paper<sup>17/</sup>. Rural roads work has also benefitted substantially from the research on labor-intensive construction techniques.

#### International Trade Support

3.38 Most port and waterway lending, major parts of railway lending and significant fractions of highway lending serve international trade. Port lending has greatly fluctuated from year to year in recent times, partly reflecting instability in trade prospects. A much higher proportion than in the past, about half, has been for facilities to handle containers and bulk traffic. Most railway projects are important for international trade flows, some such as recent ones to Zaire and Ghana are vital to countries' exports, and a few (e.g., Kenya, Zimbabwe) are also significant for carriage of traffic to and from landlocked neighbors. A relatively new phenomenon has been road projects with exceptional importance for international trade, particularly those for major transit routes in Turkey, Yugoslavia and Ivory Coast. Recent lending for international shipping has been significant (around \$30 million per year) but entirely through DFCs, and a thorough review<sup>18/</sup> undertaken in response to frequent criticism of the Bank's small role in this field concluded that more advice should be offered but not an expanded pace of financing. The previously mentioned aviation paper highlighted the importance of international airports in modern trade. Large transport investments in support of international trade, including those undertaken as components of mining or agricultural projects, have often involved substantial co-financing -- so far principally from official sources, except in the rather particular circumstances of the Suez and Black Sea-Danube canals.

3.39 The Bank has been making special efforts in its ports work to improve engineering preparation of projects and to strengthen borrowers' operating efficiency. Although in a smaller proportion of cases than in the

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<sup>16/</sup> TWD, Institutional Aspects of Rural Road Projects (December, 1981).

<sup>17/</sup> TWD, Aviation and Development (April, 1980).

<sup>18/</sup> TWD, Developing Countries and International Shipping, Bank Staff Working Paper (November, 1981).

past, serious delays and cost increases that should have been avoidable with thorough soil and hydraulic studies and fuller engineering preparation have unfortunately continued to arise. There are, of course, limits to the expenditure on engineering investigations that is worthwhile, and the cost overruns have seldom been such as to eliminate the economic justification for the project. But benefits have been lost, and for very poor countries lacking financial flexibility it may be necessary to go a stage further than usual in the past, and await actual receipt of bids before Board presentation.

3.40 As regards operating efficiency, increased effort has been given in project preparation to overcoming the major restraints posed by restrictive port labor practices, with some success. Also, port projects now make much more use of agreed action plans, performance targets and technical assistance for improvement of cost accounting and other management information systems, but more active Bank follow-up is required. In 1979 the Bank published seminal research, outlining systems of port pricing which could contribute directly and substantially to greater port operating efficiency.<sup>19/</sup> This was followed by extensive internal discussions, supplementary practical research, and a task group report<sup>20/</sup> supporting the philosophy and outlining ways it should be applied. The principles involved have been used, for instance in a radical restructuring of port storage charges at Karachi, but effort is still underway to identify an appropriate case for pilot application of the approach as a whole. Several countries have shown considerable interest, but not ones where the Bank has been involved in ports lending in this period. To strengthen Bank and borrower capacities to prepare and appraise container port projects, the Bank commissioned a state-of-the-art review which has been well received and widely circulated.<sup>21/</sup>

3.41 International transport has also involved Bank advice to its member countries, not necessarily linked to transport loans, on a larger and more varied range of topics than in the past or in other areas of transport. The Bank has been particularly concerned with helping a number of countries, such as India and Colombia, adapt to containerization, stimulating attention to issues like port handling arrangements and tariffs, decongestion of land-side access to the port, competitiveness among and within modes for inland movement of containers, and establishment of inland container depots. Dialogues on countries' macroeconomic policies and structural adjustment loans have also required special Bank studies in the international transport field -- for instance, of the economics of proposed large investments in international airports, and of international air access to island countries heavily dependent on air services for trade and tourism.

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<sup>19/</sup> E. Bennathan and A.A. Walters, Port Pricing and Investment Policy, OUP 1979.

<sup>20/</sup> Port Pricing: Principles and Practical Guidelines, Report of a Working Party (March, 1980).

<sup>21/</sup> Liverpool University Marine Transport Center, Container Logistics and Terminal Design (September, 1981).

3.42 In the area of trade and transport facilitation, and document simplification, the Bank has begun to promote studies, the first of which, for Bogota airport, had dramatic effects in improving cargo flow without any investment. It has analyzed the problems of several of the landlocked countries, especially in Africa, discussed the conclusions with the Governments, and urged more effort on facilitation. It was instrumental in fomenting the movement which now seems to be well underway for the countries of the southern cone of Latin America to adhere to the TIR convention, which will substantially ease inter-country movement of trucks and containers. Some of these efforts, especially in the facilitation area, have involved close collaboration with UNCTAD and the UN's Regional Economic Commissions.

#### Research and External Relations

3.43 Research has been broadly following the path mapped by the 1979 Transport Research Review Panel, but with increasing shortfalls since it proved impossible to provide any of the additional staff positions recommended by the Panel. The largest resources have been devoted to completing and applying the results (paras. 3.15 and 3.19 above) of the two elaborate co-financed studies -- on Highway Design and Maintenance Standards (HDM) and Labor-Intensive Construction -- which had been started much earlier. While the latter is now largely completed and ready for widespread application of the results, crucial results of the highway design research will be coming together over the next 12-18 months, following final completion of the major field studies that have been undertaken by the Brazilian and Indian highway research authorities.

3.44 Principal contributions of the highway design research to date have been to quantify for the first time the returns to road maintenance expenditure and to develop, and empirically validate, a rigorous methodology for determining highway program priorities. Forthcoming contributions will have major implications for Bank advice to its member countries on highway budget allocations and engineering issues. They are likely to suggest substantially increased expenditure on main road pavements, both by strengthening those already existing and by building new ones to higher standards than typically used to date. Economies in geometric design are indicated, particularly by building narrower pavements and giving less attention to improving alignments. But the pavement needs may be so large and so urgent as to impinge on countries' presently envisaged programs in rural road improvement, and even outside the roads field.

3.45 A number of the smaller studies and reviews recommended by the Research Review Panel have also been carried out. But no start could be made on the larger and deeper evaluation effort that the Panel urged on rural transport. Besides disseminating computer software developed earlier, the Bank has completed a flexible tool for financial analysis (FAST) which is now widely used.<sup>22/</sup> It has also brought to the pilot stage a railway planning model suitable for project preparation and appraisal. A comprehensive list of research and policy documents produced in the last three years is given in Annex I. To supplement internal resources, the Bank has persistently encouraged industrialized countries to undertake more research oriented to transport problems of developing countries. Identifiable results to date

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<sup>22/</sup> TWD, Financial Analysis System (FAST), Release III, User's Manual (September, 1979).

have included a few direct arrangements between bodies in industrialized countries and institutes in developing countries, and some small-scale studies jointly financed between the Bank and European countries which are about to start.

3.46 The EDI role in transport is highly appreciated by developing member countries. EDI gave 10 transport courses, of more diverse focus than in the past, in Washington in FY76-81 covering about 250 officials from 60 countries. Eleven regional courses were also held, and short senior-level regional seminars were introduced for Chairmen and Directors of public transport corporations and officials of similar rank from Government departments. An innovative venture in FY79-80 was use of EDI to provide intensive supervision and support for a loan-financed one-year training program for younger staff from the different modal agencies gathered in the National Transport Plan unit in Argentina. EDI has also assisted other parts of the Bank in delivery of brief seminars initiated by the latter in member countries.

3.47 The Bank has attempted to maintain relations with a large number of UN agencies, public and private international bodies, multilateral and bilateral aid agencies, professional organizations, universities and research bodies, with interests in transport. The intensity of relations naturally varies greatly among entities and over time, depending on the scope for constructive interaction. Particular attention has been given to the UN Economic Commission for Africa (ECA), because of the crucial role it could play and its need for advice.

3.48 Bank staff attend a fairly large number of international meetings on transport over the course of the year, with the purpose varying between learning and disseminating, and generally combining both. This is facilitated by TWD's monthly updating and circulation of a list of forthcoming seminars and conferences on transport. As for involvement in the organization of meetings, the policy has been to respond actively to requests for assistance from developing countries desiring to organize worthwhile international meetings on transport topics, since these can be highly valuable in disseminating and building up interest in appropriate techniques and approaches. On the other hand, involvement in meetings organized by developed countries has normally been limited to presentations on topics of current concern to the Bank. Bank staff also talk from time to time at universities offering courses in transport specially oriented to students from developing countries.

#### IV. Future Bank Activity

4.01 The Bank has responded actively to the emerging needs of its member countries in transport. Faced with rapidly rising demand for movement and stagnating financial resources for coping with it, Governments are seeking solutions that will make better use of what is already available and increase national, and local, self-sufficiency. The Bank has sharpened its capacities and tools in key fields like maintenance planning and administration, improvement of operational efficiency, upgrading of rural infrastructure and

development of human resources. It is well along with the same process in areas that have newly become important such as techniques for saving energy in transport, and policies for effective operation of transport systems consisting of several interacting and competing modes. Bank staff have fashioned new types of projects and project conditions for particular situations. Governments in turn have begun to respond to Bank advice with changes in policy and approach that would have been, and sometimes were, rejected out of hand a few years ago.

4.02 Even with Governments' increased readiness to consider new approaches, change will not normally take place easily or quickly. The Bank's experience in transport lending repeatedly demonstrates that significant change can be brought about, but only slowly, as convictions spread about the needs, suitable local solutions are discovered, institutions reorient themselves, human capacities adapt, and appropriate skills become more widespread. Bank staff themselves have to deepen their understanding and develop relations of confidence and trust with the borrower. The effort therefore has to be steady and sustained, through a series of lending operations that will normally show a high degree of continuity in basic emphasis but important changes of focus in light of the evolving situation and deepening knowledge. The results of institutional and policy change are seldom fully captured by project rates of return because their main impact is beyond the scope of the project itself. Yet it is these changes which really represent the impact of Bank involvement, as opposed to financing by another source.

4.03 In the selection of projects for Bank financing somewhat more emphasis needs to be given to the differential impact that Bank involvement can have. The basis for selection of transport projects is a complex amalgam of this together with rate of return and distributive considerations, mediated by country priorities and preferences, and by Bank staff availabilities. Distributive impact often enters into selection of transport investments by countries, and by the Bank, normally in a general way -- for instance, to give higher priority than would be indicated merely by unweighted economic return to road improvement in a relatively deprived area or to expansion of a service designed to meet the needs of the poor, or to assign relatively low priority to projects serving mainly wealthy farmers or rich commuters. The true distributional impact of most transport projects is much too complex to be identified at all easily. For instance, transport services widely believed to benefit the poor sometimes turn out to be serving the relatively better off, or the wealthy farmers just mentioned may in fact be the main potential source of additional basic foodstuffs whose expanded production would significantly reduce prices for the poor.

4.04 While these questions sometimes need careful investigation, it is even more important in selecting projects for the Bank to consider the policy and institutional changes that may be brought about by Bank involvement. For instance, a Highway Sector Loan that can help bring forward reforms of the type discussed in Chapter I may do far more for the poor than a rural roads project extending approaches already known and used in the country to a poor province. Equally, a rural roads project introducing in a country for the

first time more appropriate design standards, rural vehicles, construction techniques and organizational arrangements for local participation might represent a much better use of Bank resources than even an unusually high-return pavement strengthening project which could be financed from other sources.

4.05 Sharp alterations in the direction of the Bank's effort in transport are not called for at this juncture, but rather reinforcement of new emphases already chosen. Concern for the building of individual institutions has been replaced with the wider notion of capacity-building, emphasizing networks of institutions and organizations, in the private as well as the public sector, and a renewed commitment to the development of human technical and managerial capacities. Preoccupation with cost-minimization for meeting given transport demands has been replaced by broader resource-saving, involving improvement of the policies which affect and channel demands and consideration of a wider array of alternative solutions than were often examined in the past.

4.06 The purpose of this chapter is to discuss the substantive thrusts of the Bank's future transport work and, in particular, the ways in which the new emphases should be applied in different types of operation. Hence, after a review of the Bank Lending Program, and some consideration of Co-financing, the exposition is by category of operation: Sector Work, Highways, Rural Infrastructure, Railways, Seaports and Airports, Domestic Water Transport, Multi-modal Dimensions to Projects, Structural Adjustment Loans, and Training of Borrowers' Staff.

#### The Bank Lending Program

4.07 Review of the Bank Lending Program for the next few years indicates that Bank resources available for transport lending (both direct and indirect) will be scarcer relative to needs than they have been in the 1970s. There should be some small increase in lending in real terms, but it will be at a pace below the minimum likely increases in traffic that were established in Chapter II. Moreover most of the increase is accounted for by the provision for China which has not previously borrowed from the Bank for transport. The problem results mainly from constraints on the Bank's overall volume of activity since the most recent version of the Lending Program shows that the share of transport would remain approximately the same for FY82-85 as it was in FY77-81. Plans for lending during this four-year period are reasonably well delineated in the country-based Lending Program assembled in March 1982 and used as the basis for FY83 budget presentations. That Program is of course continuing to evolve, but a new Bankwide assembly of plans is not yet available. Hence the discussion in the following paragraphs focusses on lending plans for the four years FY82-85 as seen in March 1982.

4.08 Total lending for transport should amount to some 17-18% of the Bank's overall lending volume in FY82-85. As in the recent past, about 13-14% would be for transport projects, and some 4% for transport components of other projects. Transport lending through agriculture and rural development projects may account for about one-and-a-half of these four

percentage points, a little less than in the recent past due mainly to the reduced share of lending for such projects in total Bank lending. One percentage point is likely to continue to come from urban development projects (including those wholly devoted to urban transport), with the possibility that a higher level will be reached at the end of the period, when present lending plans suggest that two or three urban transport loans might be made each year. The remainder -- some one-and-a-half percentage points, a little larger than in the past -- would represent lending for transport components in other types of projects, most importantly a few major mining and industrial schemes under the charge of the Industry Department. This also allows for the small but significant lending through DFCs, where increases may be expected in provisions for on-lending to civil construction and road transport enterprises.

4.09 As it presently stands, the lending program for transport projects shows major changes in pattern from the recent past, several of them brought out in Table 4.1. The share of such lending accounted for by Western Africa and EMENA would approximately halve, reflecting equally a halving of the shares of transport in these two Regions' total lending -- in EMENA to reach only 8%, significantly lower than any other Region. The shares of Eastern Africa and LAC would remain stable. But those of the two Asian Regions would increase substantially, reflecting a doubling of transport's previously unusually low (5%) share of total lending in South Asia and, in the case of East Asia, substantial expansion of total lending with a constant percentage devoted to transport.

4.10 Particularly in Western Africa, but to some extent also in EMENA and LAC, the presently planned lending programs may be insufficient to sustain the dialogue with countries on improvements in policies and practices. In all three Regions the percentage of active borrowing countries which would receive transport loans would drop sharply between 1977-81 and 1982-85. The drop is sharpest in Western Africa, from 90% (18 out of 20 countries) in the recent past period -- approximately the same as achieved, and also planned, for Eastern Africa -- to less than 66% in 1982-85, or only 14 out of the 22 countries expected to be active borrowers in the period. As a result, the share of sub-Saharan Africa in total transport lending would decline from 23% in 1977-81 to 16% in 1982-85, and average annual amounts of such lending would fall some 20% in real terms between the two periods. Africa's prime need for small projects emphasizing improved operation and maintenance, and availability of increased co-financing for larger projects, could make some reduction desirable in the general context of great needs also in other sectors. But the reduction implied by the March 1982 lending program seems to go beyond this.

4.11 The forthcoming program is much more concentrated in terms of countries than was 1977-81 lending. Half the total lending would go to six countries -- in order of their importance in the program, India, Brazil, China, Indonesia, Thailand and Colombia. In 1977-81 the top six transport borrowers accounted for only a little over a third of total lending and were a substantially different group: Yugoslavia, Korea, Brazil, Algeria,

**IBRD/IDA LENDING PROGRAMS BY MODE <sup>a/</sup> AND REGION**  
(amounts in US\$ millions, current prices)

|   | <u>Highways</u> |                | <u>Rural Roads</u> |                | <u>Ports</u> |                | <u>Domestic Water <sup>b/</sup></u> |                | <u>Railways</u> |                | <u>Aviation</u> |                | <u>Total</u> |                | <u>Regional</u>        |
|---|-----------------|----------------|--------------------|----------------|--------------|----------------|-------------------------------------|----------------|-----------------|----------------|-----------------|----------------|--------------|----------------|------------------------|
|   | <u>No.</u>      | <u>Amounts</u> | <u>No.</u>         | <u>Amounts</u> | <u>No.</u>   | <u>Amounts</u> | <u>No.</u>                          | <u>Amounts</u> | <u>No.</u>      | <u>Amounts</u> | <u>No.</u>      | <u>Amounts</u> | <u>No.</u>   | <u>Amounts</u> | <u>Distribution(%)</u> |
| <b>ACTUAL FIVE YEARS 1977-81</b>                        |                 |                |                    |                |              |                |                                     |                |                 |                |                 |                |              |                |                        |
| E. Africa   | 18              | 405.5          | 2                  | 40.0           | 4            | 34.0           | -                                   | -              | 6               | 192.0          | 1               | 25.0           | 31           | 696.5          | 10.5                   |
| W. Africa   | 18              | 493.2          | 9                  | 134.1          | 3            | 50.0           | -                                   | -              | 7               | 175.0          | 1               | 7.0            | 38           | 859.3          | 13.1                   |
| E. Asia & Pacific                                       | 8               | 662.0          | 1                  | 62.0           | 5            | 163.0          | 2                                   | 120.0          | 3               | 231.0          | -               | -              | 19           | 1238.0         | 18.7                   |
| S. Asia   | 5               | 143.0          | 2                  | 52.0           | 1            | 10.0           | 1                                   | 5.0            | 3               | 275.0          | -               | -              | 12           | 485.0          | 7.3                    |
| EMENA   | 18              | 994.6          | 1                  | 32.0           | 7            | 362.0          | 1                                   | 100.0          | 3               | 148.0          | -               | -              | 30           | 1636.6         | 24.7                   |
| LAC   | 20              | 821.0          | 4                  | 226.0          | 4            | 92.0           | -                                   | -              | 4               | 440.0          | 2               | 119.0          | 34           | 1698.0         | 25.7                   |
| <b>Total</b>  | <b>87</b>       | <b>3519.3</b>  | <b>19</b>          | <b>546.1</b>   | <b>24</b>    | <b>711.0</b>   | <b>4</b>                            | <b>225.0</b>   | <b>26</b>       | <b>1461.0</b>  | <b>4</b>        | <b>151.0</b>   | <b>164</b>   | <b>6613.4</b>  | <b>100.0</b>           |
| Annual Average  | 17.4            | 703.9          | 3.8                | 109.2          | 4.8          | 142.2          | 0.8                                 | 45.0           | 5.2             | 292.2          | 0.8             | 30.2           | 32.8         | 1322.7         |                        |
| <b>MARCH 1982 PLAN FOR FOUR YEARS 1982-85</b>           |                 |                |                    |                |              |                |                                     |                |                 |                |                 |                |              |                |                        |
| E. Africa   | 15              | 490.0          | 3                  | 80.0           | 3            | 49.0           | 2                                   | 66.0           | 4               | 140.0          | -               | -              | 27           | 825.0          | 10.2                   |
| W. Africa   | 12              | 403.0          | -                  | -              | 6            | 93.0           | 1                                   | 17.0           | -               | -              | -               | -              | 19           | 513.0          | 6.4                    |
| E. Asia & Pacific                                       | 4               | 341.0          | 6                  | 620.0          | 2            | 160.0          | 4                                   | 456.0          | 5               | 746.0          | -               | -              | 21           | 2323.0         | 28.8                   |
| S. Asia   | 4               | 135.0          | -                  | -              | 3            | 375.0          | 1                                   | 20.0           | 4               | 865.0          | -               | -              | 12           | 1395.0         | 17.3                   |
| EMENA   | 10              | 374.5          | 1                  | 35.5           | 3            | 250.0          | -                                   | -              | 3               | 270.0          | -               | -              | 17           | 930.0          | 11.5                   |
| LAC   | 12              | 1196.0         | 2                  | 155.0          | 6            | 309.0          | -                                   | -              | 3               | 417.0          | -               | -              | 23           | 2077.0         | 25.8                   |
| <b>Total</b>  | <b>57</b>       | <b>2939.5</b>  | <b>12</b>          | <b>890.5</b>   | <b>23</b>    | <b>1236.0</b>  | <b>8</b>                            | <b>559.0</b>   | <b>19</b>       | <b>2438.0</b>  | <b>-</b>        | <b>-</b>       | <b>119</b>   | <b>8063.0</b>  | <b>100.0</b>           |
| Annual Average  | 14.3            | 734.9          | 3.0                | 222.6          | 5.8          | 309.0          | 2.0                                 | 139.8          | 4.8             | 609.5          |                 |                | 29.8         | 2016.0         |                        |
| Annual Average Amounts<br>in 1977-81 US\$ <sup>c/</sup> |                 | <u>565.3</u>   |                    | <u>171.2</u>   |              | <u>237.7</u>   |                                     | <u>107.5</u>   |                 | <u>468.8</u>   |                 |                |              | <u>1550.8</u>  |                        |

<sup>a/</sup> An increasing proportion of projects have components in more than one mode. They are assigned here to the mode which accounted for 50% or more of the loan.

<sup>b/</sup> Domestic Water Transport includes Inland Water Transport (IWT), Coastal Shipping and Interisland Shipping.

<sup>c/</sup> Preceding line deflated by 30%, based on Bank's commitments deflator, as given in FY83 Budget.



Philippines and Mexico, again in descending order of amounts borrowed. This change reflects addition of China to the Bank lending program, special efforts to overcome the bottleneck to development that Indian Railways have become, increased highways lending to Brazil, and moves to greater selectivity in Bank railways lending. Railway loans are presently projected to only 13 countries in 1982-85, compared with 23 to which loans were actually made in 1977-81.

4.12 The program also shows significant changes in the distribution of lending among modes. This needs to be interpreted carefully since the historical record demonstrates that planned loans for ports and water transport have had a lower likelihood of actually being achieved in a given period than those for other modes -- because of the difficult and extensive preparation required for many such projects and frequent changes in expectations about international trade. Therefore, based on the relationship between actual lending in FY78-81 and the May 1978 Lending Program, the following table includes a 25% downward adjustment to the future figures for ports and domestic water transport shown in Table 4.1.

Table 4.2

Average Annual Lending by Mode in 1977-81 US Dollars

|                | <u>Actual 1971-81</u>             |                                   | <u>Program 1982-85</u>            |                                   |
|----------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|                | <u>Amounts</u><br><u>(\$ mln)</u> | <u>Percent</u><br><u>of Total</u> | <u>Amounts</u><br><u>(\$ mln)</u> | <u>Percent</u><br><u>of Total</u> |
| Highways       | 703.9                             | 53.1                              | 565.3                             | 38.6                              |
| Rural Roads    | 109.2                             | 8.3                               | 171.2                             | 11.7                              |
| Ports          | 142.2                             | 10.8                              | 178.3                             | 12.2                              |
| Domestic Water | 45.0                              | 3.4                               | 80.6                              | 5.5                               |
| Railways       | 292.2                             | 22.1                              | 468.8                             | 32.0                              |
| Airports       | 30.2                              | 2.3                               | -                                 | -                                 |
|                | 1322.7                            | 100.0                             | 1464.2                            | 100.0                             |

Lending would increase in real terms for all categories except highways (and airports for which no future separate lending is presently shown), with particularly strong increases for railways, rural roads and domestic water transport, each of which would substantially increase their shares of the total. It should be stressed that the breakdown in Tables 4.1 and 4.2 is by main category to which a project belongs and is therefore not comparable with the end-use estimates of Table 3.2, splitting individual loans by allocations to modes.

4.13 Despite the fall in the amount shown for highways, and a reduction from 21 to 17 in the number of loans made each year for rural roads and highways, this mode would nonetheless remain the largest use of transport lending, accounting for some 50% of the total. Africa and Latin America

would be the principal Regions for highways lending, but there would be a great expansion of rural roads lending in East Asia. Further separate lending for rural roads is not presently envisaged in Western Africa, where effort would rather be concentrated on roads included in agriculture and rural development projects and on continued support for the recently created central institutions through such loans and those for highways.

4.14 Port operations would be more widely spread in the coming years than they have been, with notable increases in West Africa, LAC and South Asia. Loans for domestic water transport would be particularly important in East Asia, mainly in the form of river transport in China and perhaps Thailand, and shore-based facilities for inter-island transport in Indonesia.

4.15 Railways lending would be much more heavily concentrated in Asia than in the past, and especially in China (\$500 million) and India (\$815 million), which together account for more than half the total railways lending shown. No railways lending is currently foreseen in Western Africa, the Region which made the largest number of railway loans in 1977-81, partly because of this relatively large amount of recent past lending and partly because of difficulties in reaching effective agreement with borrowers on appropriate railway development policies.

#### Co-financing

4.16 Recent experience suggests that there is potential to compensate for the lagging growth of Bank transport lending by more recourse to co-financing. This would also serve the equally important purpose of getting a better use of whatever funds are available from other foreign sources for transport investment in developing countries. Co-financing carried by Bank transport projects has risen substantially from about 33% of the amounts lent by the Bank in 1979-80 to nearly 50% in 1981-82, although this remains below the Bankwide average percentage. There have also been important changes in the sources and applications. Where the sources used to be limited to a few bilateral aid and export-credit agencies and the regional development banks, they now include more of the Arab funds, with larger amounts, and a growing number of private banks. Moreover the co-financing is much less concentrated on railway equipment sales; indeed in FY82, when it reached over \$700 million in total, it was mainly for port and highway projects, including substantial private bank loans for civil works as in the Cameroon highways project.

4.17 Three steps should be taken to further promote co-financing in transport. First, Regional programs staff, who have overall responsibility for co-financing, should actively promote technical contacts with potential co-financiers at early stages in the genesis of projects, and the Regional transport divisions should give high priority to meeting this need. Transport sector memos and reviews and project briefs should be sent to principal agencies which might provide or organize co-financing for Bank-supported projects or which have on-going activities in the transport sector of the host-country. This may be done either formally (after revision

in light of host-country comments) or informally. Wherever there is good prospect of co-financing being secured, the responsible projects staff should have early discussions with the agency's technical personnel. The purpose would be to make sure that the latter's concerns will be dealt with in preparation/appraisal, to seek to have them carry part of the work-load, and to minimize the number of different documents that will have to be prepared.

4.18 Second, more attention should be given at original conception of transport projects to any possibilities for involving private foreign investors, whether banks, through loans or bond purchases, or transport operating companies, through direct investment. Port authorities, as mentioned earlier, should be particularly well placed to secure private foreign loans -- even, as the Singapore Port Authority does, without Government guarantee. Toll highway authorities, or entities concerned with transport routes of great interest for international trade, may sometimes be able to follow the same course. Some Bank transport projects also offer opportunities for facilitating the inflow of foreign direct investment and expertise. Examples include the provision of certain port services (e.g. container-handling), operation of river and road transport services, supply of specialist services to a railway company or its customers, or even operation of some railway services (e.g., for a mining company). Too often in the past Bank assessments have either assumed that the public authority must continue to try to provide all the services itself or failed to consider the legal and procedural constraints preventing or restricting development of competing private services.

4.19 Third, to stimulate interest and foster easier interaction with other lenders' staff, it would be worthwhile to experiment with annual meetings of financing agencies interested in transport development in Africa and other low-income countries. Attended by the specialist transport staff of the various agencies (for instance, for the Bank, the Chiefs of relevant transport divisions), such meetings would provide for discussion of general policies, perhaps focussing on different areas in different years, followed by a brief exchange of information as to financing agencies' plans, problems and perspectives for assistance in transport development, recipient country by recipient country.

4.20 Discussion of each country would be too brief for it to be worthwhile for representatives of recipients to attend. The process would, however, facilitate early identification of promising co-financiers for particular projects and appropriate dissemination of country transport sector studies. Very importantly, it would also help to avoid inconsistencies that now arise -- such as provision of excessive amounts of new equipment, insufficient help for spare parts, different institutional arrangements for maintenance in different parts of a country. As the Bank gives more emphasis to changes in countries' transport sector policies as means to improve efficiency, it will be increasingly important to avoid such inconsistencies and to secure as much understanding and agreement as possible among donors. The need for more regular contact at the technical level among

donor agencies was raised by several participants at the donors' meeting on road maintenance that the Bank organized in Paris in 1980.

#### Sector Work

4.21 Governments' increased readiness to act to improve the efficiency of the transport sector, as discussed in Chapter I, means that good transport sector work is more important than it was in the past. It also means that sector work needs to focus more directly on identifying ways to make the transport market function better. This involves substantially more attention than in the past to transport services and Government policies affecting their development. The increased emphasis that has been given to these issues in work on some countries in the last two years needs to be spread more widely and further deepened. The Bank should also be increasingly selecting and designing projects in such a way as to help bring about significant policy reform.

4.22 The ways in which sector work is best carried out will continue to differ among countries, but more attention is needed in most Regions to follow-up discussion with Government of studies undertaken or promised. The studies themselves are increasingly done by borrowers' own staff, often with the aid of local or foreign consultants or technical assistants, sometimes still largely by such outsiders, and sometimes by staff of other international agencies. Bank staff-time devoted to sector work is therefore recorded under project preparation, appraisal and supervision, technical assistance and other miscellaneous categories, as well as under sector and economic reporting. The latter relates mainly to the preparation of sector memoranda drawing together the results of work done and shaping a strategy of lending, advice and technical assistance.

4.23 Clearly Bank staff-time should be conserved mainly for work to identify and delineate issues, to guide those studying them in depth, to review conclusions, and to discuss actions with the responsible authorities. The last step in particular may require much patient dialogue, and it is crucial to allow adequate staff-time for this. Sector memoranda themselves may need to be briefer as a consequence. But they should take account of the experience, and help mobilize the potential, of other Bank lending, such as for Agriculture and Rural Development, DFCs, Structural Adjustment and Urban projects, in contributing to the improvement of transport.

4.24 Subjects most in need of additional attention in sector work will naturally vary between countries. But within the general thrust toward ways of making the transport market function more effectively, there are four policy areas which often best repay effort at this time:

- (i) Institutional and legal structures affecting competition within and between modes and hence the responsiveness of transporters to customers' needs. This includes such diverse issues as: economic regulation in the different modes (e.g.

restrictions on market entry and pricing) and ways to bring about a reduction; measures to raise the effectiveness of safety regulation; increasing the autonomy and responsibility of public transport enterprises; mobilization of the private sector for provision of services hitherto supplied by the public sector; availability of credit for purchase of both conventional and unconventional vehicles; rationalization of foreign exchange and other controls affecting the supply and distribution of spare parts for vehicles; potential for public trucking terminals to improve the road freight market; and ways to reduce regulatory and other restraints to effective competition on international services.

- (ii) Pricing and taxing rules and practices, with particular attention to the structure (as opposed to the overall level) of prices and user-taxes for publicly provided facilities and services, and their relationship to marginal costs. The efficiency improvements that can result from improvement of pricing structures in the competing modes should be the main route to the needed increase in financial self-sufficiency of public transport agencies. However in many cases this must also be supplemented by better mechanisms for expeditious adjustment of prices and taxes in light of inflation.
- (iii) Measures to improve the energy-efficiency of the transport sector additional to those which would result from actions under (i) and (ii) above. These would include efforts at better dissemination of energy-saving techniques, strengthening of public institutions in modes which should be able to gain traffic as a result of the change in energy prices, and research and development work on the use of locally available unconventional energy resources for transport (e.g. gas and ethanol).
- (iv) Measures to raise the responsiveness to market demands of the public agencies responsible for infrastructure provision, with particular attention to the scope for increased efficiency by better adjustment of standards and techniques -- e.g., in the highways field, lower-level infrastructural improvements such as paths, tracks and trails as an alternative to rural roads, use of spot upgrading, adequacy of pavement design standards for main roads, feasibility of lower geometric norms for roads, potential for increased use of local materials, and means to promote a better balance between labor and equipment in construction and maintenance operations.

These areas should loom large in the transport sector work undertaken or recommended by the Bank in the coming years. Work on them is a necessary accompaniment to the efforts that are still very much needed to further upgrade broader investment planning in the transport sector. Despite the

considerable advances that have been made, planning procedures in many of the Bank's borrowing countries result in insufficient financial allocations for routine and periodic maintenance and let through some projects of relatively low priority. Experience suggests that, in some countries, the most effective locus for exercise of discipline on transport investment planning is in the national planning authority or Ministry of Economy rather than the bodies specifically devoted to transport coordination that the Bank has often tried to help set up in the past. The main additional need at this time appears to be for more attention, either from such national planning bodies or from Ministries of Transport, Public Works, etc., depending on country arrangements, to policy issues, especially those belonging to the four groups mentioned above.

4.25 Country and Bank transport sector work thus serve to help identify not only the highest-priority investment projects but also, and even more, the policy changes which should be pursued in connection with Bank lending for transport, and the weights that should be given to them. The fact that Bank/IDA loans need Government guarantees, and that Governments as well as borrowing enterprises are involved in loan negotiations, gives the Bank a useful opportunity as a lender. It means that, in addition to actions that are the direct responsibility of the enterprise or Ministry which will use most of the loan funds, issues can also be taken up which relate to broader policies affecting the performance of the project. Transport loans often carry conditions relating to actions by other branches of Government, particularly Finance Ministries and price control authorities.

4.26 To be suitable for treatment as a loan condition, issues have of course to be thoroughly studied and well prepared, so that a solution appropriate to local circumstances is available, or nearly so, and a convincing case can be made for it. What it is wise to seek in terms of preconditions or conditions for the making of a loan will vary enormously depending on the stage reached in the Bank's association with transport in the country, the state of the dialogue with the authorities, the seriousness of the problems, the extent to which the foundation for dealing with them has been laid, and the significance of the Bank as a lender. But, where there are problems, the Bank should make a definite contribution to the process of gradually overcoming them.

4.27 As sector work deals increasingly deeply with the areas mentioned above, loan preconditions and conditions should be expected to cover a somewhat broader range than in the past and to receive more effective follow-up. The Bank has tended to take the strongest stand on what it considered direct misallocations of Government funds in the mode affected by the project, such as excessive design standards, underprovision for maintenance and uneconomic railway investments. It has also attached great importance to borrower financial performance and action plans, although loan negotiations have been much more seldom broken off on these issues, and a proper caution has been exercised in imposing requirements with potentially adverse distributive effects.

4.28 While these will remain important subjects of negotiation, other topics are also likely to warrant coverage. First, given the potential importance of intermodal competition in helping to improve the efficiency of the various modes, more attention should be paid to the transport sector as a whole in setting up loan conditions. The Bank should be ready, for instance, to attach to highway or railway loans conditions relating to regulation and taxation of road freight transport or coastal shipping if policy improvements in these have been demonstrated to be necessary to get a better inter-modal traffic distribution. Or again, a port loan may need to carry conditions requiring reduction or abolition of a port access monopoly by a single trucking company.

4.29 Second, even where a loan is only for infrastructure, more attention should go to the possible desirability of conditions relating to service performance -- for instance, in the case of a highway loan, measures to ensure adequate flows of spare parts to the trucking industry, or, in the case of a rural roads loan, steps to reduce restrictive controls on the use of private vehicles for public service. Third, alleged negative distributional consequences of a proposed measure (e.g., cutting budget allocations for rural roads to increase provisions for maintenance of main highways, or reducing commuter transit subsidies) should not be accepted as a final answer, but rather followed up with a requirement to have the matter studied in depth and appropriate action taken. Fourth, in the case of issues long studied and discussed, where needed action has nonetheless not been taken, some actual start on the necessary measures should be expected as a precondition to signing of a new loan.

#### Highways

4.30 Highway projects will remain the most important single form of transport lending, affecting the largest number of countries and accounting for some 5% of Bank lending for all purposes in the coming years. They must be used more than has been typical in the past to deal with broader sector policy issues. Highway Sector Loans are particularly appropriate for this purpose, besides having other advantages of flexibility in use and focus on the pattern of all public expenditures on highways. Experience with five of the six made so far has been very positive, and highway lending can be expected increasingly to take this form as institutional capacities improve. But highway project loans can also provide an adequate base for dealing with broader policy questions.

4.31 Thus all highway loan appraisals should include at least a simple analysis of the structure of road user taxation and a sound evaluation of economic regulation affecting the road transport industry. Particular attention would go to assessing whether tax structures needlessly discourage fleet renewal and whether heavy vehicles and appropriately taxed. Other energy-related issues, such as adequacy of arrangements for training of drivers and truck-company managements and for maintenance and inspection of vehicles, should also receive more frequent attention. The Bank should be

reluctant to approve highway loans unless retail fuel prices cover at least the opportunity cost of the fuel, local distribution costs and short-run marginal costs of road use. But most other policy issues will require in-depth studies before Government can take action. Wherever there are important issues requiring attention, they should be taken up, whether by studies or by action under the loan.

4.32 The dominant thrust of highway lending will remain the patient effort to build up efficient domestic capacity for adequate maintenance and administration of the highway network. Projects will therefore consist largely of specially tailored programs of financing, technical assistance and training to achieve the next stage in development of local capacities for planning, managing and executing maintenance. General covenants regarding maintenance and axle-load control<sup>23/</sup> almost always need to be supplemented by specific Action Programs, and likely some loan components, to help achieve better performance. Improved administration of truck weighing facilities, and higher fines for infringement of the law, will be important in many countries. In some it will be necessary to deal with the problem by at least temporarily prohibiting the import of excessively large vehicles. Projects with highway safety components are likely to continue to increase, with greater emphasis on enforcement aspects, vehicle inspection, driver training and safety campaigns. Environmental pollution by highways should also receive more attention, especially in very dry climates.

4.33 Amongst the various dimensions of programs for improving highway maintenance, particular attention should go to the management of maintenance equipment fleets and more effective operation of hire funding systems. More projects should also include provisions to strengthen, and increase the highway authorities' reliance on, local contractors as potentially the most efficient means of executing many highway maintenance operations. Actions to improve Government contracting procedures and to strengthen arrangements for training of technical and managerial staff particularly warrant attention.

4.34 Tighter constraints on the volume of Bank and IDA lending mean that the Bank's effort should mainly be concentrated on these capacity-building dimensions of the problem, helping to develop personnel and systems for better management of available resources and more efficient allocation among the various tasks to be done. Lists of equipment to be purchased should be scrutinized more carefully, to tailor them more closely to requirements and to promote better use of the existing stock. Borrowers and other lenders should be encouraged to follow the same approach. In some countries other lenders will be able to provide the majority of the support for large scale pavement strengthening and highway rehabilitation programs, in co-financing arrangements or separate operations. But developing capacity for regular monitoring of pavements and for preparation of strengthening programs should be an integral part of the Bank's institution-building concern.

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<sup>23/</sup> Road Vehicle and Axle Loading in Highway Loan Preparations, Report of a Working Group (February, 1982).



4.35 In exceptionally poor countries, the Bank has made a useful contribution to maintenance development by being prepared to finance, temporarily and on a declining basis, a share of even the recurrent costs of enhanced efforts at routine maintenance. The deteriorating financial position of some African Governments means that cases are now likely to arise where this needs to be done even for routine maintenance that is not incremental to the level previously sustained. The Bank should be ready to consider such financing, since it may be the key to preventing destruction of substantial inherited assets. But the issue must be looked at in a broader and longer-term perspective, to verify that domestic or foreign funds could not advantageously be diverted from construction, to ensure the country could eventually expect to carry the maintenance burden, and to avoid perpetuating over-extended networks that have no prospect of being adequately maintained with local resources even in the long term.

#### Rural Infrastructure

4.36 Improvement of rural transport infrastructure, the most direct way in which the transport sector contributes to the Bank's poverty-reduction objectives, will be supported in the coming years by loans primarily for this purpose, by components of broader transport loans, and by components of Agriculture and Rural Development loans. Together, they are likely to continue to account for about 4% of total Bank lending. However a larger proportion of this 4% will be in transport loans, and particularly in large loans with major institution-building dimensions in the East Asia and Latin America Regions. Therefore special attention must continue to be given to close coordination with broader agricultural and social development in the areas affected and to the timeliness of any outside interventions required in the latter fields.

4.37 While the large majority of the lending is likely to be for rural roads, they should not be assumed to be the only solution to rural transport problems. Changing technology and prices, and tighter capital budget constraints, make air, river and sea transport marginally more attractive alternatives than they have been. Thus proper consideration should be given to them in appropriate circumstances. In addition, lower-level infrastructure improvements such as tracks and trails should be considered as legitimate alternative investments which are likely to have a stronger effect on the relief of poverty than some of the rural roads heretofore included in Bank loans.

4.38 Larger efforts must be made by the Bank to develop the use of labor-intensive techniques of construction and maintenance for rural infrastructure. They are often the least costly solution in economic terms, they have better distributive effects than alternatives and they more readily call forth local effort. Project Briefs and other documents on projects involving extensive construction of simple rural infrastructure, whether for transport or other purposes, should always discuss the basic wage actually paid in the area (as contrasted with the official legal minimum wage). Where

the wages paid are below the equivalent of about US\$4.00 per day in 1982 prices and labor is available in adequate quantities, the alternative of using labor-intensive techniques for the construction works should be seriously considered. In areas without a modern tradition of labor-intensive construction, it will often be necessary to start by force-account operations, whereas in others it will rather be a matter of securing better interaction between the Ministry of Works or project authority and local communities or small contractors.

4.39 Wherever labor-intensive techniques of construction and maintenance show good potential, training of Government staff in the design and management of such operations — which may involve, for example, different road lay-outs from those which would be chosen with heavy use of equipment -- should be organized. Capacities should be developed for the provision of technical assistance to communities on these and other crucial matters, such as appropriate selection of hand-tools. In some cases it will be appropriate to take special measures to avoid the bias towards use of equipment-based techniques that exists in most present-day procedures for bidding and contracting of works.<sup>24/</sup> Even in countries where it would normally finance only foreign exchange costs, the Bank has already accepted to lend for at least the same share of total costs of labor-intensive construction operations as it would if the work was to be carried out with heavy use of equipment.

4.40 Foreign technical assistance experienced in the management of labor-intensive construction operations is now more readily available, and country interest has grown markedly, so that it should be possible to design programs which will not impose undue supervision burdens on the Bank's Regional Divisions. Several international consulting firms have developed expertise, a number of developing countries can offer experienced staff, and ILO, with Scandinavian financial assistance, has enlarged its capacities in the area — with special attention to applications in maintenance of civil works. The Bank should now expect to undertake a larger number of broad rural infrastructure projects emphasizing the build-up of community and contractor capacities for labor-intensive civil construction and maintenance.

4.41 There are two other areas which should be receiving increased attention in Bank efforts on rural infrastructure. One, which interrelates with the potential for community self-help construction, is the development of arrangements for more effective local participation, at the village and/or district level, in the planning of works. Better ways have to be found to combine local initiative with Government technical expertise, and this should receive more explicit attention than has generally been the case to date in Bank projects. One dimension is to develop techniques for screening, evaluation and selection of small transport projects which are both simpler

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<sup>24/</sup> Scott, Wilson, Kirkpatrick and Partners, for IBRD: Guide to Competitive Bidding on Construction Projects in Labor-abundant Economies (1978).

and more realistic, measuring agricultural potential more summarily and giving more adequate attention to movement of people, their time savings and the use of transport for social purposes. Another dimension is to develop the institutional structures for effective interaction between communities and technical ministries, such as local representation of the ministry and standard arrangements for creation of community committees and procedures for their operation.

4.42 The other area that warrants more attention is rural transport vehicles and means of bringing them within the financial reach of local people. Non-conventional vehicles, such as numerous forms of animal-drawn cart, tricycles and bicycles with trailers, and motorized three-wheelers, play the dominant role in local rural transport in many parts of the developing world. Yet improved designs have great difficulty in spreading from one area to another, while some countries -- especially in Africa -- use little beyond conventional trucks, buses, pick-ups, cars, motorcycles and bicycles, all in very limited numbers. The obstacles to the spread of lower-cost, non-conventional vehicles -- such as import and licensing restrictions, ineligibility for credit, and lack of market incentive to the international transfer of these simple technologies -- need to be identified more clearly in specific cases, and efforts made to overcome them. Thorough investigation of the potential for private-sector provision of transport services, whether by conventional or unconventional vehicles, should always precede any consideration of a Bank loan provision for enlarging the fleet of a parastatal agency such as a marketing board.

#### Railways

4.43 The large increase in the provision for railways in the forthcoming transport lending program, especially for Asia and southern East Africa, reflects increased needs for railway modernization in face of the new energy prices and growing bulk movements. Overall efficiency and quality of service needs to be improved, to enable the railways to capture, in open competition with other modes of transport, as large a share of traffic as they can. And particularly densely trafficked lines will need to be electrified in several of the countries with the most important networks. In addition, the Bank is likely to help finance some large railway investments within the framework of projects aimed at developing new coal and iron-ore mines.

4.44 Because of their importance for major industries and exports, and their serious existing problems, railways in many countries represent a particularly high-priority subject for Bank attention. But substantial reforms are often needed, both internally in management and operation, and externally in the policy framework governing their operation. Appropriate sector policies are essential to help the railways move in the right direction, away from the lightly used and unremunerative services which now often hamstring their effectiveness, and towards the heavy passenger flows and dense traffics of primary products, semi-manufactures and containers where they can have long-run comparative advantage.

4.45 The main task of the next few years in the railways field will be to fully apply the prescriptions and conclusions reached in the previously mentioned, recently approved Bank policy paper on "The Railways Problem". In view of the difficulties encountered in many past railway projects it was decided to adopt a more selective approach in future lending. In particular, both Government and railway management must be ready to undertake the multi-dimensioned process of structural change that is normally needed to enable railways to play an effective part in transport. This process is complex and difficult and can only be expected to be achieved over a series of loans. But each loan should make a step in the right direction. To help achieve a properly selective approach, six specific criteria have been identified which would have to be fulfilled by future railway projects in order to qualify for Bank support.<sup>25/</sup> A number of projects that were earlier included in future lending programs have been dropped, and those that remain should all be able to meet the criteria. However, this will be reviewed on a case-by-case basis during project preparation.

4.46 The success of railway lending will also be determined by the effectiveness with which it focuses on the railway enterprise's key problems. Several measures are being taken to improve this. First, the policy paper lays great stress on initial comprehensive diagnosis, to identify priorities among problems and assess how many of them the railway management could reasonably be expected to solve within a project period. Second, preparation of the various software and hardware parts of the program and project should be deeper and broader than in the past, to avoid imbalances and inconsistencies and poor non-project investments. Preparation can be assisted by railway rehabilitation/engineering loans as well as other means of financing technical assistance. Third, the overall design of projects is expected to continue the more diverse pattern developed in the last few years, with projects tailor-made to focus primarily on particular functions (such as rolling stock maintenance or wagon control and information systems), particular regions or movement of particular key commodities, in addition to the more traditional comprehensive 'time-slice' project where that remains the most appropriate.

4.47 Fourth, Action Plans must be more fully and carefully prepared and agreed between borrower and Bank. They must include specific, and not over-ambitious, targets in the selected areas for each year of the project, and agreed sets of measures to reach the stipulated targets. Progress in their execution must be regularly reviewed, and the targets adjusted as necessary to keep them realistic and effective. A further step that could help in some countries both to make Action Plans more effective, and to reduce arbitrary Government interference in railway operation, would be to seek Social Agreements or Contract Plans, with the same content as the Bank requires in the Action Plan, but agreed between Government and railways.

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<sup>25/</sup> Operational Manual Statement on Railway Lending, Final Draft, September 20, 1982.

## Seaports and Airports

4.48 The increased lending foreseen for seaports reflects expanding international trade and, particularly, the spread of modern bulk-handling methods and containerization to the developing countries. Few future port projects will be without provision for these modern methods. Some will involve extensive channel dredging and major civil works such as new wharfs or the construction of port facilities at entirely new sites, the kind of work that requires very careful engineering preparation which is inclined to take longer than expected. But more of the projects than in the past are for rehabilitation of existing facilities and conversions to bulk-handling and container operations, which should be less liable to slippage in preparation. Hence ports lending in the forthcoming period may not be subject to the full amount of the 25% slippage assumed in Table 4.2.

4.49 In addition, some industrial, mining and agricultural projects will include substantial provisions for port works. DFCs will continue to be called upon to finance ships for international commerce and, with the UNCTAD Code of Liner Conduct now coming into force, they will need to beware of uneconomic propositions based solely on cargo reservation. No lending is presently foreseen for airports, but issues connected with them and international air traffic will continue to arise in country policy dialogues and some lending may become necessary in view of their increasing importance in the movement of goods as well as people.

4.50 Port labor issues are assuming greater significance in connection with the staging and sizing of major port investments. Borrowers will increasingly require Bank advice on reasonable standards and ways they can be brought about. A port gang working breakbulk cargo can normally achieve a productivity of around 12 tons per hour; a container crane about 12 tons per cycle, say every four minutes; bulk loading/unloading at typical world capacities average around 12 tons per minute. Work interruptions are therefore much more expensive under the new technologies.

4.51 To get a satisfactory utilization of the very expensive equipment installed often requires major changes in labor practices, which are difficult to negotiate with the labor unions involved. Without such changes even larger investment is required, for which it is very hard to justify scarce Bank financing. Thus, without being able to deal with the matter directly, the Bank does have to insist on solutions being found in the course of project preparation -- whether by securing labor union agreement to reduce breaks and increase shifts, by changing the bases of labor remuneration or by setting up the facilities outside the sway of existing port labor unions. In some countries the problem has been so serious as to divert the growth of port capacity away from the public ports into private, 'industrial' ports.

4.52 The Bank must also develop further the system of agreeing with all port borrowers efficiency targets for the key areas where improvements are needed. It is important that agreement also be reached on the measures --

such as training, improved maintenance and reduction of restrictive labor practices -- that are necessary to reach the targets, and that the latter be given some legal standing by incorporation in a supplementary letter. The targets should be year-by-year and must be followed up more actively. Since it is generally relatively easy for ports to introduce increases somewhere in their typically complex tariff structures, the Bank has to be on its guard that its revenue covenants in this field do not simply serve to cover up inefficiency.

4.53 Continued attention should also be given to the improvement of port costing, and reinforced efforts made to get tariffs for the different services appropriately related to costs. The marginal cost pricing approach developed in the research report published by the Bank three years ago is too new and unconventional to be adopted yet as standard Bank policy. But high priority should be attached to a trial application with at least one port (and preferably more) within the next three years, since it would likely make a significant contribution to improving the efficiency of use of port assets. As a further approach to improving operating efficiency, the Bank should also give more systematic attention to the opportunities for competitive sub-contracting of more port functions.

4.54 Another area that should receive more frequent consideration in connection with port operations is the scope for improvement in the speed and efficiency of trade flows by applying the known techniques of trade and transport facilitation, including document simplification and modernization of customs clearance procedures. Bank port loans offer an excellent opportunity to help bring about action on these matters, and appropriate expertise is readily available from the UNCTAD Facilitation Program (FALPRO) and the numerous national bodies dedicated to the same end.

#### Domestic Water Transport

4.55 This remains the smallest category of transport lending among those identified, but it is the one which shows the largest proportionate increase. It includes all forms of water transport primarily serving movements within countries, i.e., most navigable rivers and canals, and coastal and inter-island shipping. It is naturally of particular importance in countries consisting of many islands such as Indonesia and Philippines. It has traditional importance in the form of river transport for countries like Bangladesh, Burma, China, Congo, Sudan and Zaire. And it has been of growing importance in the form of coastal shipping for a few countries with extensive coast-lines close to main centers, such as Korea and Turkey. The transport lending envisaged is for various of these countries. There will also be small amounts of lending for the same purpose through Agriculture and Rural Development and DFCs projects.

4.56 The sharp growth in expected lending for water transport is basically due to the significant improvement in the comparative advantage of this mode, as a result of the energy price increases, wherever the routes involved

are not too much longer than those by alternative modes. In a few cases where there are no practical alternative means of transport, it also reflects efforts to spread development more widely. In many countries the domestic water transport modes were allowed to decline as other forms of transport were built up after World War II. Coastal shipping, in particular, has suffered in many countries from restrictive port labor practices, insurance and customs problems, excessive Government economic regulation, ill-conceived attempts to force cross-subsidization from international shipping, and inadequate technical regulation. River transport has suffered from neglected maintenance of waterways and public ports, restrictions on competition in service provision and declining efficiency of the public monopolies. These are usually the principal problems which need to be dealt with in projects, and the Bank should continue its efforts to generate more such projects in situations where they can make an important contribution to increasing transport's energy efficiency.

#### Multi-modal Dimensions

4.57 The recent tendency for some projects to include components relating to more than one mode of transport should be expected to increase and to lead to further diversity. First, new techniques and equipment are reducing the costs of transshipment and increasing the potential advantages of routings involving more than one mode. Second, intermodal interchange arrangements often offer particular opportunities for efficiency improvements, and the Bank can sometimes play a role in bringing the parties together to identify problems and solutions. Third, projects involving several modes may form a useful framework for discussions, studies and action, by Government, on sector policy issues relating to competition and cooperation between the modes.

4.58 The various multi-modal project concepts already applied should be developed further, and new ones may be added. In some areas rural transport projects can usefully include provision for small sub-projects in several modes, as was done in Haiti a few years ago. Projects focussing on the distribution of one or two key commodities, as developed by the Bank's Asia Regions, can help to develop a Physical Distribution Management capability in a country and to introduce more efficient distribution patterns and innovations in transport techniques. The recent Romanian Land Transport project, which combined investment in rail and road and gave the opportunity for studies on modal choice, might be expanded, especially in a smaller country, into a transport sector project including sub-projects in several modes and focussing on policy reforms affecting inter-modal competition and choice. Domestic water transport projects with Roll-on/Roll-off facilities for trucks and trailers are likely to have increasing potential in various countries in the coming years.

4.59 A recently approved railway project in Pakistan helped develop the concept, and provides equipment, for an up-country Dry Port, permitting through movement of containers by fast train direct from the port, with

Customs inspection much closer to the point of origin/destination. This concept might be extended to deal with the problems of transport corridors to landlocked countries, perhaps combining provision for more efficient handling of containers inland with the necessary operating improvements in the transit country's port and overland transport.

4.60 Not necessarily involving project investments in more than one mode, but intimately connected with the development of inter-modal transport techniques, the modern truck terminal is likely to be the centerpiece of some projects appropriate for Bank support in the coming years. Public freight terminals open to all users can provide an effective market place for trucking services and help to raise typically low truck load factors. They can reduce time- and energy-wasting freight hunting and alleviate urban traffic problems. Combined with rentable space for storage, sorting, distribution and processing, they can be the hub of a local industrial development pole. Equipped with bonded warehouses and customs clearing capability, they can help reduce land-side port congestion and foster efficient inland movement of containers. Developed along with a TIR system for reducing transit delays due to customs procedures, they can promote the growth of trade among adjoining countries.

#### Structural Adjustment Loans

4.61 Structural Adjustment Loans, which have mainly focussed so far on medium-term macroeconomic measures to improve the balance of payments, overcome public-sector financing constraints or rationalize pricing structures for basic commodities, cannot be expected to deal in detail with the steady, long-haul institutional and technical changes mainly required in transport. Indeed their consequences may rather increase the physical burdens on the transport system, as in the case of the very successful series of such loans to Turkey. But just as transport analysis has sometimes been needed to contribute to the macroeconomic objectives of Structural Adjustment Loans, so these loans have sometimes contributed to achievement of objectives critical to the transport sector, such as increasing diesel-fuel taxes, improving the financial self-sufficiency of state-owned transport enterprises and rationalizing public investment in transport. In several cases transportation staff have played an important part in reviewing, and advising on, Contract Plans for public-sector transport enterprises, public investment plans for the transport sector and other issues.

4.62 In the coming years it will be necessary for the transport sector in the Bank more actively to seek support from Structural Adjustment Loans and general country dialogue, concomitant with transport loans, to help cope with some of the broader issues and to respond to Governments' new interest in more radical policy measures to improve the efficiency of the transport sector. Effort to reduce transport subsidies, for example, often needs backing by work to demonstrate, at the macroeconomic level, their negative effects on inflation and income-distribution, or to illustrate more effective ways of transferring income to depressed regions thought to benefit from



retention of extensive unprofitable rail networks. Problems of uncompetitive salaries for public transport agency employees, or excessively restrictive labor practices of public-sector unions, may be difficult to deal with except with support from a broader perspective. Much the same goes for the problem that is hampering transport in more and more countries, of inadequate mechanisms for channelling the small amounts of foreign exchange required for purchase of critically needed spare parts, or that of increasing both the autonomy and the responsibility of public-sector transport agencies. General Plan Investment Reviews under Structural Adjustment Loans offer a useful context for helping to improve investment planning for the sector and to promote more attention to policy reform.

4.63 As the Bank moves more fully into emphasizing the development of the domestic construction industry, further issues will arise on which Structural Adjustment Loans could make vital contributions. One example is the needed series of reforms in Government procedures for planning, bidding, contracting, supervising and paying for works. Another is measures needed to overcome the obstacle posed by excessively high legal minimum wages to contractor use of efficient labor-intensive techniques.

#### Training of Borrowers' Staff

4.64 Loan provisions for staff training in borrower agencies have greatly expanded in number and size, now even including, where necessary, allowances to cover domestic travel and subsistence of participants in training programs. But these training components of loans still require earlier and fuller attention. Transport Sector Memoranda and Project Briefs need to take a longer-term view of training needs and opportunities, assessing the adequacy of the agencies' training sections and their influence on local educational institutions' curricula. Perspective plans need to be drawn up during project preparation, by the borrower or his consultants, identifying coming gaps in skills and preparing phased training programs, fitting with the local education system, that can go into execution when the project starts. Such planning is still too often left to be done after the project has been approved.

4.65 Training programs now often cover much larger percentages of the borrower's staff than in the past. However, they seldom reach the 15-20% of staff per year that is typically covered by in-house training programs of the more advanced borrowing agencies and that should be increasingly possible even in countries with weaker general education systems. The importance of training is further increased by the more complex and expensive transport equipment that is being introduced by many projects. Where this is the case, it would be useful for the Bank to make more use of the concept of training audits -- i.e. independent specialist reviews of the borrower's training program to see if it meets internationally accepted standards.

4.66 For senior and middle level staff more attention needs to be given to management training. Loan provisions often cover overseas training for a

small number of staff at these levels, mainly on technical and economic subjects. What appears to be required in addition, and sometimes in substitution, are periodic courses at home, specially designed to meet the borrower's needs and gathering groups of staff from different levels, on general management issues and techniques. The courses would cover such subjects as personnel motivation and evaluation, resolution of labor union problems, assessment of shipper transport needs, fleet maintenance, spare parts management, workshop productivity, principles and uses of costing, establishment of departmental performance standards and effective use of periodic control reports.

4.67 The Bank should also continue to promote the development of technical services and research capacity in its borrowing countries and to include provisions for related technical assistance and equipment in its loans. For instance, it is to be expected that most highway borrowers would develop at least a basic capacity in pavement evaluation and in materials testing, to identify the scope for making better use of locally available materials in road building and maintenance. Better-staffed countries are developing local capacities for transport economics research, and loan provisions for studies can sometimes give a useful assist to this process.

4.68 The EDI will continue to play a vital supportive role to the Bank's effort in transport, especially at a time when the Bank's approach is changing to give more importance to analysis and reform of sector policies. EDI projections indicate that about 7% of the resources available to it will be put into transport courses. A large proportion of the courses will continue to be given, on a national or regional basis, in the borrowing countries, where they have the advantage of creating more of a critical mass of EDI graduates in a Government as well as helping to build local training capacities. It will be particularly important to sustain the initiative taken in the last few years, after considerable effort, to develop courses for Francophone West Africa. Beyond EDI training in project preparation, evaluation and execution, with increasing emphasis also on sector policy analysis, there is a major need in Africa for training of managers of transport operating companies and agencies on a multinational, multimodal basis. Various means are being sought to help fill this need.

#### V. Staff, Organization and TWD Program

5.01 This chapter deals briefly with the staffing, and manner of organization, of the transport sector throughout the Bank and develops a program of future activity in transport for the Transportation and Water Department (TWD). The purpose is to assess trends, and to recommend any needed changes, in light of the work-emphases proposed in the last chapter. After short discussions of Bankwide Staffing, Organization and the Role of TWD, separate sections are devoted to the Distribution of TWD Effort among categories of work and to each of the main categories: Operational Support and Advice, Policy and Research, and External Relations.

### Bankwide Staffing

5.02 The total number of higher-level staff assigned to the sector has been fairly constant in the last few years, at about 175, but there have been some marginal changes in composition. The 175 consists mainly of transport economists, financial analysts and engineers specializing in each of the three main modes with which the Bank has been concerned. In addition there have been one or two specialists in each of several other fields: aviation/airport engineering, aviation economics, maritime transport, road transport services, and training programs for transport entities.

5.03 Retirements, rotation of staff among Transport Divisions and staff moves to other sectors have permitted appropriate marginal adjustments of staff composition to meet changing requirements -- for instance, in the last years, slightly less ports and railways work and increased assistance to Agriculture and Rural Development Divisions on rural roads. They have also enabled the addition of individual staff members with specialized skills newly required -- for instance, in construction industry, railway operations, locomotive design and maintenance, and rural sociology/anthropology. Full-time staff resources are complemented by consultant budgets which have helped both to deal with work-load peaks and to bring in more specialized expertise than the Bank regularly requires, e.g., in inland waterway transport, container operations or railway telecommunications.

5.04 The immediate prospect is for a slight reduction in the total number of staff positions devoted to the sector, but this should not prevent implementation of the emphases proposed in this paper. The marginal reductions reflect both Bankwide budget constraints and the small decrease in number of loans projected to be made each year, especially in highways. Average numbers of staffweeks used for preparation, appraisal and supervision of highway and port projects have been below the Bankwide average for all sectors, while for railway projects they have generally been above. These averages, which include considerable differences amongst individual projects, are not expected to fall.

5.05 This paper has stressed the need for more staff effort in patient follow-up of Action Plans and sector policy studies and more contact with co-financiers. It has also called for more attention to a number of specific issues such as the structure of road user charges, potential for use of labor-intensive construction techniques, resolution of port labor problems, initial diagnosis of railway prospects and problems, local involvement in rural transport projects, and training components of loans. To be sure, the availability of additional appropriate staff resources would help to speed broad implementation of these suggestions. But the impossibility for the Bank to provide such resources at this time does not prevent their steady implementation, by careful choice of projects and project thrusts, greater reliance on borrowers and consultants for standard engineering economics work, more use of technical assistance loans and loan components, and more selective application of Bank staff skills.

5.06 Thus, the Bank's transport staff, who have demonstrated much imagination and flexibility in the large number of innovative projects developed over the last few years and discussed in Chapter III, can certainly meet the challenge of the new opportunities that now present themselves. The review of transport sector work carried out in 1980 concluded that the recommended broadening and deepening to deal with transport services and policy issues required some reorientation of existing staff work rather than a major increase of the staff resources applied. The range of staff skills and interests needs to be extended by appropriate direction of staff and self-help, and by training and discussion sessions. Also, experience in the areas where the Bank needs strengthening should be stressed among recruitment criteria, although this will only have a slow effect, since recruitment will be largely limited to offsetting reassignments out of the sector and retirements. Principal subject areas that need to be more fully incorporated in Bank staff skills are analysis and assessment of sector policies (especially those referred to in para. 4.24 above), negotiation of concession agreements and other contractual arrangements with private enterprises, and management of transport operations.

#### Bankwide Organization

5.07 While the broad disposition of the Bank's transport staff, with some 85% in the Regional Offices, has remained the same over the last few years, there have been significant organizational changes within the Regions. In recognition of the need for increased emphasis on sector issues and cooperation between staff working on different modes, three Regions have abandoned the modal organization of their transport staff (one Division for highways, and another for ports and railways) in favor of a sub-regional breakdown, with each Division responsible for all modes of transport in about half the Region's member countries. The principal resultant disadvantage, that each Division may not have the specialists required for all its operations, is dealt with mainly by appropriate lending of staff between the two Divisions, which appears to be working satisfactorily. The minor scheduling difficulties involved are greatly outweighed by the advantage of concentrating on one Division Chief and his staff responsibility for all modes in a country.

5.08 East Asia has split its single multi-modal Division into two, on sub-regional lines. And South Asia has amalgamated its one, relatively small multi-modal transport Division with its Electric Power Division. LAC had already strengthened cooperation between its modally based Divisions by assigning the economists country responsibilities, so that they are loaned to the other Division for work on projects in 'their' country.

5.09 Beyond the eleven Regional Divisions, there are four other Departments with transport specialists: TWD, which has about 10% of the Bank's total staff in the sector and EDI, OED and the Education Department, together accounting for another 5%. There has been considerable movement of staff between TWD and the Regional Transport Divisions, but TWD has also

recruited staff from other assignments and from outside the Bank. Four of the eighteen TWD staff who devote most of their work to transportation have been in the Department well in excess of five years, due partly to their unusual capabilities making this the most appropriate place for them to stay and partly to the Bankwide difficulties in rotating staff in the higher grades. Amongst the remaining fourteen, who have joined TWD within the last 5 or 6 years, almost equal proportions have come from the Regional Transport Divisions, other Bank assignments, and outside the Bank. Of the eight Advisers, three have been Advisers (though with changing subject matter) for more than 5 years, three have come from the Regions, one from other Bank work and one from outside. On the general principle that staff should not normally stay in TWD more than about 5 years, several TWD transportation staff should be moving to Regional Transport Divisions and other posts in 1983/84.

5.10 An issue that has to be kept under review in transport is the hiring and organizational location of rare or relatively rare specialists among the staff. Sometimes such specialists may best be located in TWD, where they can be available for loan to any Region as well as for policy development and provision of advice to any part of the Bank. In other cases, it is better for the specialist to be placed in the Regional Division which has the principal requirement, or in one which has the potential for developing innovative projects reflecting the specialty in question. From there the specialist can be loaned, to a limited extent, to other Regions for short-term assignments and advice. Both solutions have been used satisfactorily. But problems can arise if the specialist is relatively weak in coping with more general issues and the overall need for the specialty fluctuates greatly from year to year or turns out to be limited in duration. Moreover, if the need consists of relatively small demands from several Regions, there may be difficulties of combining budgetary requests and reaching satisfactory compromises regarding the scheduling of staff-time among interested Regions.

5.11 The need for unique, or almost unique, specialists may increase somewhat with the broadening of countries' requirements in policy matters and the development of specially apposite projects. Hence the problems just mentioned could become more serious. Some degree of flexibility has been assured so far by the fact that TWD has three 'partial pool' positions, i.e., jobs where the incumbent spends a significant part of available time on direct support to the Regions in a specialist area. The specialties represented have changed over time in response to Regional demand and are at present Construction Specialist, Aviation/Ports Economist and Railway Operations and Management Specialist. Very recently, in connection with the 1982 staff redeployment, a new type of pool position -- almost wholly devoted to support of other Departments, and with actual budget transfers from those Departments to cover full salary costs -- has been evolved to ensure the continued availability of the Bank's principal Aviation Engineer.

5.12 Development of the Regions' need for specialist support must be kept under close review since it may become advantageous to create more central specialist positions, especially now that the Regional Divisions are no longer modally specialized. It will also continue to be appropriate for the Regions to hire unique specialist staff in cases of concentrated need, but this must be done (except in the case of a specialist who will anyway reach retirement age at an early date) with due regard to likely Regional and Bankwide needs in later years. Creation three years ago of a Transportation Staff Selection Committee, including representatives of the Regions, PMD and TWD, facilitates this.

5.13 Changing Regional workloads mean that reassignments of specialists between the Regions or with OPS are periodically necessary. The same need may arise from time to time even for staff specializing in one of the Bank's three traditional transport modes, as lending falls off in one Region or another. The possible desirability of recentralizing all technical specialists belonging to an area where each Division has only one or two has been considered from time to time. An OPD/TWD paper considering this possibility for railways staff and laying out the issues involved is nearing completion.

5.14 Cooperation between the transport staff and the staff of non-transport Divisions has improved significantly in recent years but always warrants attention from Regional Assistant Projects Directors, Division Chiefs and TWD Advisors. Several of the Regional Transport Divisions now provide considerable support to Agriculture and Rural Development Divisions for work on rural transport components, and receive significant help from the central Education Department, and to some extent Regional Education Divisions, on training components of their own projects. Such substantive interaction will be increasingly needed with DFCs and Industry staff, especially on project components, and with Urban Divisions on policy issues. It will also be needed with Regional Chief Economists and Country Program Departments and Divisions on fiscal and wage issues, the broader dimensions of policy reforms and co-financing. Thus the level at which inter-Divisional cooperation now most needs strengthening is in the selection and formulation of projects, their components and emphases, so that all, whether wholly devoted to transport or merely with related dimensions, can contribute as effectively as possible to improved operation of transport. Transport Sector Memoranda should be better used for this purpose.

#### TWD Role

5.15 The principal task for TWD at this stage in the evolution of the Bank's transport work is to help the Regional Divisions take full advantage of their new and highly appropriate sector, as opposed to modal, focus to respond to the borrowing countries' needs. In the Bank's present budgetary prospects TWD cannot expect to receive additional resources for transport work any more than the Regions can. TWD has to allocate its resources in such a way as to enable the Regions to respond most effectively to the needs and

opportunities outlined in earlier parts of this paper. This implies a TWD role of stimulator, patron and assistant to innovation. It certainly should not expect to be the originator of all or even most innovation, any more than it has been in the past. But it should continue to support innovation by helping identify major problems arising in countries of all Regions, by developing analytical tools and methodologies, and by acting as constructive critic of initiatives developed by Regional staff with their borrowing countries.

5.16 Above all, the accent must be on quick-response support of the Regional Divisions in the considerably more difficult job that they now have, of responding to borrowing countries' increased readiness to consider sector policy reforms and to bring about important improvements in the operation of the sector. This paper has made it clear that, while many countries face somewhat standard problems in transport, there are no standard solutions. Many of the applicable solutions will be of the second-best variety. The emphasis of TWD Advisers must be on helping the Regions, whether by work on individual projects or by training or by development of new approaches, to make the second-best as good as it can be. And, at the margin, greater importance should now be attached to more guidance rather than more guidelines.

5.17 Supportive and constructive advisory style is even more important than it has been, in view of the difficult tasks faced. Equally, it is important for Regional staff to adopt a collegiate approach, bringing the Advisers into the picture early in the project cycle. Full trust and confidence must be created and maintained between Advisers and Regional Staff. This has always been harder in some lending areas, particularly railways, where the problems involved have been exceptionally difficult and the results of earlier Bank efforts limited. Now that a clearer policy on railways lending has been agreed across the Bank, it is hoped that a fully constructive relationship will be easier to maintain, but sustained efforts of both Regional and TWD staff and managements will be required.

5.18 Amongst the various instruments of TWD support to the Regions, somewhat increased emphasis should now be given to training and inter-Regional exchange of experience, and to early advice in the selection and shaping of projects, which are both elements of the large work category called Operational Support and Advice (OSA). In both, the main objective would be to help the Regions respond to the increased opportunities for improvement of countries' sector policies. Work on Bank Policy and Research must not be neglected because it remains much required to support sector policy analysis itself, to bring past research results to full utility for operational purposes, and to develop the basis for an effective Bank response to issues that will be of increasing importance in the future. However, a good deal of such work has been accomplished in the recent past, and the main results have been reflected in a series of substantial overview papers already mentioned, on Road Maintenance, Railways, Transport Sector Work, Aviation, Shipping, Energy in Transport, and Construction Industry. They underlie much of the analysis in this document, and TWD's job now is to help the Bank reap in operations the full fruits of this effort.

### Changing Distribution of TWD Effort

5.19 TWD has been moving in these desired directions. The shares of available staff and consultant time devoted to OSA, and, within OSA, to training and 'upstream' project work, have been increasing. The figures emanating from the Bank's Time Recording System suggest that transportation OSA work in general, and the part devoted to the early stage of projects, both more than doubled between FY79 and FY81, to reach respectively some 35% and 8% of total TWD work on transportation in the latter year. Because of changes that occurred between the two years in the treatment of Direct Support work (i.e. mission and related work in support of Regional operations) the apparent doubling of overall OSA work is an exaggeration of reality. In TWD, Direct Support is essentially an extension of OSA, and has become somewhat more so over the period, so that the two work categories are best treated together. Analysis of the figures on this basis shows that combined OSA and Direct Support work still increased substantially over this period, and that this was accomplished by a corresponding reduction in the share of total effort devoted to Policy and Research. The time devoted to organizing and giving training, which is a category difficult to record accurately, rose according to the available figures to some 2.5% of total TWD-Transport time in FY81, and nearly 4% in FY82.

5.20 The overall distribution of TWD's transportation effort in FY81 was 50% to Policy and Research, 46% to OSA and Direct Support, and 4% to External Relations. Policy and Research shared about equally in the first category, but the breakdown fluctuates from year to year and is of limited significance because of difficulties at the margin in distinguishing between the two categories of work. The above overall distribution cannot readily be compared with corresponding figures for other OPS Departments because they did not until recently have full responsibility for Bank research in their sectors. However it is interesting to note that they generally show a much higher proportion of effort devoted to External Relations, possibly reflecting the significant Regional involvement in this function in transport.

5.21 The proportion of project-related advisory time devoted by TWD transportation staff to the 'upstream' stage of projects was similar to the OPS average in FY81, just over 40%, and about the same in FY82. However the figures are affected by the substantial amount of time devoted by TWD staff -- well over half a staffyear per year, and rising -- to advice on non-transport projects' transportation components, which tend understandably to be little defined in the early stages of project preparation and therefore to be reviewed later. Of the time actually devoted to transport projects the share applied at the upstream stage has been around 50% and reached 70% for some types of project. The proportion of transport projects for which TWD and the Regional Divisions agreed that review of the Yellow Cover appraisal should be fully waived reached about 20% in FY82, somewhat below the figures for Education and Electric Power projects, and above those for other sectors.

5.22 Since 1977 TWD has retained essentially the same form of internal organization, namely in small units of 2-4 professional staff with combined



responsibility for all aspects of TWD work -- direct support, project review, training, policy development, research, and external relations -- in a particular subject area. The subject areas have also remained much the same -- Ports, Shipping and Aviation; Railways; Rural Transport; Highway Maintenance and Engineering; and Construction Industry -- but emphases within each subject area have naturally evolved over time. Each unit normally includes at least one economist and one engineer, with one or the other appointed Adviser and head of the unit. The Adviser carries full responsibility for TWD work on a designated list of projects under preparation (and under supervision), with the help of either other staff in the unit or Advisers and staff elsewhere in TWD if their expertise is needed in the particular case.

5.23 Besides the modally oriented units, there is a Financial Adviser's Office with more limited staff resources but similarly comprehensive responsibilities, from project review through external relations, in the financial aspects of all transport projects. And there is an Economic Adviser's Office with principal responsibilities in review and advice on sector work (with the aid of economists from the modal units), plus development of policy and research on topics cutting across the transport modes.

5.24 This organizational structure has been quite successful in meeting the purpose for which it was principally designed -- close interaction between operational, policy and research work -- and it appears appropriate to retain it with only minor modification for the Department's upcoming tasks. The Unit structure has helped particularly to get research results quickly disseminated in the Bank and reflected in operations, most notably in the case of highway maintenance planning. It has also helped the reverse process of getting practical operational problems quickly reflected in the orientation of policy and research work. And it has proven quite flexible; for instance, within the last three years, staff positions have been shifted between units in order to strengthen capacity in the area of Construction Industry, where Regional demand has been exceptionally strong, and to enable recruitment of the Bank's first sociologist/anthropologist in the transport sector, for work principally on rural projects.

5.25 Sectoral and multi-modal issues have been reasonably well dealt with because of frequent contact between the small units and the small size of the group as a whole, but it is here that some strengthening appears needed. In particular, an increased share of the resources in the Economic Adviser's Office are being devoted to review and support of Regional sector work, and economists in several of the modal units are being given an explicit cross-responsibility to the Economic Adviser.

#### Operational Support and Advice

5.26 The coming years should see a further slight upward shift in the proportion of TWD's resources devoted to OSA and Direct Support, as well as increased concentration within this general category on 'upstream' project work, on Regional sector work and on training of Bank staff.

5.27 More attention needs to be given in TWD 'upstream' work to the problem of selecting and formulating projects for Bank financing in such a way as to help bring about significant policy improvements that would occur only slowly or not at all without the Bank's involvement. For instance, at the stage of the earliest Project Brief, TWD must make greater efforts to explore opportunities for the project to contribute to improvement in the pricing structure of transport enterprises, introduction of appropriate energy conservation measures, reduced regulation of transport markets, or solution of other policy issues identified in sector work on the country. Clearly this requires careful consideration of the project in light of the latest available transport sector report and other documents, reflection and perhaps discussion. It is doubtful whether this can be done in sufficient depth at an average annual time-expenditure per project reviewed at the pre-appraisal stage of only half a staffweek, which was the time spent in FY81 (excluding major Direct Support work). The figure was higher in FY82 and should be expected to increase further.

5.28 TWD has been making increasing efforts to advise and assist not only sector work undertaken directly by Bank staff but also that done by borrowers and their consultants in connection with Bank loans, and these efforts need to be pushed farther. TWD staff have long been called upon to review terms of reference for such studies. Now they are increasingly participating in sector work missions to cover special topics. And they are occasionally visiting borrowers and consultants, at the request of the Regions, to advise on approaches in studies of matters such as road user taxation, pavement monitoring and evaluation, construction industry development, deregulation of transport services, and analysis of railway potentials. Mission involvement clearly has to be selective and should be concentrated on cases which raise special issues, where the Regional staff involved are less experienced in reviewing transport policies or where a particularly heavy load tends to devolve upon the Bank, as in sub-Saharan Africa.

5.29 In view of the interest to the Bank's own policy and research work of sector policy studies done by countries and consultants, as well as the earlier-mentioned operational need for more active Bank follow-up of such studies, TWD should create and maintain a master-list of policy-related studies commissioned or promised in connection with loans, including their expected dates of completion. The list would be regularly circulated not only as a useful reminder to Regional staff to follow up on progress but also as a systematic guide to staff of other Regions as to what were the latest studies commissioned on particular topics, who can advise about experience with them, and when the results may be expected.

5.30 TWD efforts in staff-training and exchange of experience have considerably diversified and expanded in recent years and this trend should be continued, with special emphasis on sectorwide issues. Fairly long-standing training activities (besides the kind of coaching of individual staff-members that sometimes occurs during OSA work) include special efforts at discussion, review and dissemination of new policy and research papers,

visits by outside specialists to deliver lectures, diffusion of useful material obtained from outside the Bank, and systematic efforts to keep Regional staff informed of outside courses and conferences of potential interest, with assistance frequently in arranging attendance.

5.31 Several of these activities have been expanded, and new initiatives have been taken with the help of Regional staff, including regular lunch meetings to discuss port topics and, separately, railways issues; organization of seminars of one-half to two days' duration on particular problems; arrangement of meetings for inter-regional exchange of experience, often on the basis of a particularly interesting piece of Regional work; and more TWD participation in discussions, within Regional divisions, of the problems staff are facing. In 1980 a questionnaire survey was made of all transport staff as to the subjects in which they felt the need for more training, and that helped to orient work in the last two years. Least satisfactorily served by the various efforts so far made are probably the transport economists, partly because of their number (so that it is difficult to have regular transport economists' lunch-time meetings, though some of course attend the ports and railways discussions) and partly because of TWD's long periods in 1979 and again in 1981 without an Economic Adviser.

5.32 The need now is to develop a somewhat more systematic program of training seminars and discussions, with more permanent Regional involvement in planning the program. Hence, a general meeting of the Bank's transport staff was held in June 1982 and the nucleus of a joint TWD/Regional Committee was created. Considerable interest was expressed at the meeting in additional formal Bankwide talks on particular topics, especially in transport economics, since they take staff away from their work for only a few hours. But larger efforts will probably be required too, including regular repetition of one- to two-day seminars on several of the policy papers issued in recent years, more formalized training sessions on techniques for analyzing selected issues of sector policy, and possibly periodic meetings outside Washington, such as several other sectors have organized, on major problem areas.

5.33 Results of a new questionnaire survey circulated in July 1982 are still being analyzed, but preliminary findings indicate a strong demand for more training, particularly on many of the sector policy issues underlined in the present report. TWD also expects to undertake in FY83 an in-depth study of the particular training needs and opportunities of the Bank's railways staff, to help guide the planning of training and recruitment in that field. Average time spent on training by Regional transport staff does not yet appear to be up to the 6 days per person per year that has been allowed for budgeting purposes. But when account is also taken of general Bankwide courses and language training, it could soon get there. It is reassuring then that the P&B Department has indicated a willingness to allow an increase over the 6 when that level is reached.

5.34 With the changing emphases that the Bank is trying to bring to its work in the transport sector, it will also be very important to enable

selected staff to undertake more extensive external training, of say 3-4 months' duration, than has normally been possible in the past. This would permit, for example, specially arranged study programs to help individual staff-members upgrade their knowledge in a subject-area of rising importance in their Region, and more attendance at the highly valuable transport management courses offered in several countries. The one-year sabbatical program, from which very few of the Bank's staff in transport (or in other areas) benefitted, has now been terminated. Training absences for 3-4 months are encouraged instead. But budgetary arrangements comparable to those applied in the sabbatical program -- namely full compensation to the staff-member's Division for the salary involved, to enable consultants to be hired -- will be essential to enable the Transport Divisions to take advantage of these possibilities. Without such budgetary arrangements only one staff-member in the transport sector undertook such training over the four years 1979-82. With proper budgetary arrangements, an appropriate target could be one staff-member per annum per Division within a few years.

#### Policy and Research

5.35 In view of the need to devote more resources to OSA and Direct Support, and the unlikelihood of expanding the OPS budget for transportation, a very selective approach has been adopted in planning TWD's future Policy and Research work. Also, enhanced efforts have been started to secure outside financial support for research and more collaboration with entities in countries interested in assisting transport improvement in developing countries. The presently planned program of work is shown in Annex II, and it should be noted that execution of a number of the studies, as indicated there, will depend on securing resources beyond those presently in sight. Both Policy and Research reports would emphasize illustrations of what countries have actually been able to do, in view of the utility of this kind of material to Bank staff.

5.36 Forthcoming Policy work would concentrate on the preparation of guidelines and policy notes on specific and fairly narrow topics, such as certain aspects of the maintenance of transport facilities and of construction industry development, techniques for preliminary screening of railway electrification and rural road projects, and ways of assessing road user charges, domestic shipping potential and rural transport services and rural road design standards. Many of the topics represent sub-aspects, now needing more detailed work, of the major issues discussed in the series of policy papers produced in the last few years. No more such major papers are envisaged at present. Recent experience in the transport sector with task forces or working groups, including both Regional and TWD staff, to help prepare and review policy guidelines has been very positive, and this technique will be used again wherever appropriate. On transport sector policy issues it is planned to create a standing inter-Regional committee.

5.37 The planned program of Research foresees mainly three categories of work: first, the final completion of the two major studies that have been underway since the early 1970s, including their dissemination and follow-up evaluation of early applications of their results; second, some further work on issues of considerable operational importance in rural transport development, especially local participation and evaluation of passenger demand aspects; and third, a number of studies of policy issues cutting across modes. Included in the last group are Fuel Pricing and Taxation (recently approved for support by the Bank Research Committee), Deregulation Processes, Transport Subsidies, and development of an economic and econometric model of Personal Travel Demand that could help analyze the impacts of alternative policies affecting this particularly rapidly growing form of transport demand. No further studies even approaching the scale of the Bank's efforts on Highway Design and Labor-intensive Construction are envisaged at the present.

5.38 Besides contributing to the formulation of operational policy and to Bank capacities to offer sound advice to its borrowers, research studies may also be linked more directly and rapidly with operations. Borrower staff involvement in research studies, as achieved in the Highway Design research in India and Brazil, can help to lay the foundation for implementing their results. Countries have sometimes been ready to include in a loan request to the Bank a provision for research work of strong interest to them which is also closely linked to Bank research. The program of work outlined in Annex II foresees test applications by Regional staff of research results on some topics prior to the preparation of a resultant policy guideline. In some cases it will be appropriate for TWD to circulate in its research series such reports on country case applications -- as also (with permission) studies on topics of broad interest done by borrowers and their consultants under loans.

#### External Relations

5.39 Despite the important role played by Regional Transport Division staff in expressing the Bank's view in international fora, the share of TWD staff-time devoted to External Relations will probably show some increase in the coming years. It is to be hoped that the Divisions responsible for sub-Saharan Africa will be able to achieve their intention of taking over from TWD most of the job of liaison with ECA; and also that Regional Division Chiefs will more often deliver important addresses at international conferences, as one of them recently did at the meeting of the International Road Transport Union in Montreal and another at the Portech '82 Conference in Singapore. The consequent reduction of the burden on TWD is likely to be more than offset, however, by increased efforts with potential co-financiers in the transport sector and with possible external sources of assistance in research and related technical assistance to borrowing countries.

5.40 In view of the successful experience with the donors' conference in 1980 to discuss the policy paper on highway maintenance, TWD plans to organize a similar conference in FY83 on the basis of the recently completed

railways policy paper. Testing of the annual financial agencies' conference on transport development in low-income countries in Africa and elsewhere, which was mooted in para. 4.19, would also take a certain amount of TWD time. Among financing agencies the Regional Banks in particular should be consulted more regularly by TWD since their experience can be specially useful and their Boards sometimes expect them to apply policies similar to those outlined in Bank policy documents. As regards collaboration and joint financing in research and technical assistance, recent small successes with Australia, Holland and the United Kingdom, and initial contacts with Italy and several Scandinavian countries, suggest that the possibilities are worth pursuing.

Principal Papers Produced July 1979 - June 1982

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| The Highway Design and Maintenance Standards Model (HDM): Model Structure, Empirical Foundations and Applications, conference paper, 19 pages. | Aug. 1979  |
| Outline of a Generalized Road Roughness Index for Worldwide Use, conference paper, 10 pages  | Aug. 1979  |
| A Preliminary Evaluation of Paved and Unpaved Road Performance in Brazil, conference paper, 9 pages  | Aug. 1979  |
| Identification and Appraisal of Rural Road Projects (SWP 362), 74 pages  | Sept. 1979 |
| Financial Analysis System (FAST) Release III, User's Manual, 220 pages   | Sept. 1979 |
| The Highway Maintenance Problem, 35 pages  | Oct. 1979  |
| Port Pricing in Pakistan, 59 pages   | Oct. 1979  |
| Port Pricing and Investment Policies for Developing Countries, Oxford University Press, 256 pages  | Dec. 1979  |
| Relating Vehicle Utilization to Highway Characteristics from Brazil, conference paper, 34 pages  | Jan. 1980  |
| Highway Design and Maintenance Standards Model (HDM): Model Description and User's Manual, 185 pages   | Jan. 1980  |
| World Bank Lending for Inter-island Shipping with Special Reference to its Financing, conference paper, 22 pages                               | Mar. 1980  |
| Port Pricing: Principles and Practical Guidelines, Report of a Working Party, 9 pages  | Mar. 1980  |
| Aviation and Development, 110 pages  | Apr. 1980  |
| Vehicle Depreciation and Interest Costs: Some Evidence from Brazil, conference paper, 20 pages   | Apr. 1980  |
| Forecasting Railway Traffic Trends: Lessons from Cross-country Comparisons, conference paper, 29 pages   | Apr. 1980  |
| Appropriate Technology in Civil Engineering: Roads and Transportation, speech, 4 pages   | Apr. 1980  |
| Determination of Economically Balanced Highway Expenditure Programs under Budget Constraints: A Practical Approach, conference paper, 18 pages | Apr. 1980  |
| Transport Research for Social and Economic Progress: Key Issues of the 1980s, speech, 14 pages   | Apr. 1980  |
| Transport Research in the World Bank, article, 9 pages   | May 1980   |
| Road User Charges and Road Transport Regulation (Draft), 69 pages  | July 1980  |
| Representative Ship Costs, consultant report, 90 pages   | Aug. 1980  |
| Containerization and the Developing World, conference paper, 110 pages   | Oct. 1980  |
| Review of Transport Sector Work, 46 pages  | Oct. 1980  |
| The Economic Aspect of Transport and Energy, conference paper, 24 pages  | Nov. 1980  |

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| Maximizing the Contribution of Highways to Development in the 1980s, speech, 14 pages  | Feb. 1981 |
| Method of Computing the Opportunity Cost of Petroleum Products, 23 pages   | Mar. 1981 |
| The Closure of Uneconomic Railway Lines in Yugoslavia, consultant report, 84 pages   | Mar. 1981 |
| The Role of the World Bank in Less-Developed Countries' Ports, conference paper, 9 pages   | May 1981  |
| Port Contribution to Human Prosperity, conference paper, 63 pages  | May 1981  |
| Domestic Construction Industries in Developing Countries, speech, 7 pages  | May 1981  |
| Transport and Communications in Africa, Contribution to Africa Strategy Paper, 30 pages  | May 1981  |
| The Future of Road Transportation: Restraint or Release, speech, 17 pages  | June 1981 |
| Rural Mobility and Communications Study (Mexico), 50 pages   | Aug. 1981 |
| A Procedure for Obtaining a Stable Roughness Scale from Rod and Level Profiles, 63 pages   | Aug. 1981 |
| Container Logistics and Terminal Design, consultant report, 192 pages  | Sept.1981 |
| Rural Transport Services Review Study - Philippines and Indonesia, 112 pages   | Sept.1981 |
| Road Safety Components in Bank-Financed Projects, 10 pages   | Oct. 1981 |
| The Developing Countries and International Shipping (SWP 502), 148 pages   | Nov. 1981 |
| Use of Cost-Benefit Analysis in World Bank Projects in the Road Sector, conference paper, 8 pages  | Nov. 1981 |
| Transportation and Communications Research and the Developing Countries, conference paper, 20 pages                                      | Nov. 1981 |
| Report of Training Seminar on Transport and Energy (draft), 117 pages  | Nov. 1981 |
| Axle Loading Study, Review of Bank Projects, 14 pages  | Nov. 1981 |
| Institutional Aspects of Rural Road Projects, conference paper, 30 pages   | Dec. 1981 |
| The Road Maintenance Problem and International Assistance. 71 pages  | Dec. 1981 |
| Infrastructure: Doing More with Less, article, 3 pages   | Dec. 1981 |
| The Costs of Road Accidents and the Valuation of Accident Prevention in Developing Countries, consultant report (draft), 155 pages       | Dec. 1981 |
| A Country Program for Establishing Local Relationships between Road Deterioration and User Costs, 9 pages                                | Jan. 1982 |
| A Program Plan for an International Experiment to Establish Correlation and Standard Calibration Methods for Road Roughness Measurements | Jan. 1982 |



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| Surfacings for Low Volume Roads in the Third World, conference paper, 26 pages   | Jan. 1982 |
| Energy and Transport in Developing Countries: Towards Achieving Greater Energy Efficiency (draft), 150 pages                                     | Jan. 1982 |
| The Railways Problem, 165 pages  | Jan. 1982 |
| Road Vehicle and Axle Loading in Highway Loan Preparations, Report of a Working Group, 5 pages   | Feb. 1982 |
| An Appraisal of Highway Maintenance by Contract in Developing Countries, 62 pages  | Mar. 1982 |
| Improving Management Systems for Road Maintenance Equipment: Monitoring Equipment Performance and Solving Spare Parts Problems (draft), 99 pages | May 1982  |
| The Construction Industry in Developing Countries (draft), 97 pages  | May 1982  |
| Labor-Based Construction Programs: A Practical Guide for Planning and Management (for printing), 300 pages                                       | June 1982 |
| The Planning, Financing and Management of cost Effective Road Maintenance in Africa, Report of IBRD/ECA Seminar (draft), 29 pages                | June 1982 |

Projected Output of Policy Papers & Guidelines and  
Research Reports, FY 83-85

(in chronological order of completion, by quarter of fiscal year)

FY 1983

- Quarter I : OMS: Railways Lending  
Energy and Transport in Developing Countries: Survey Paper
- Quarter II : Maintenance Standards for Port Structures & Equipment  
HDMS<sup>1/</sup> - Completion of Brazil/UNDP Research  
HDMS - Report on June 1982 International Experiment on Road  
Roughness Measurements  
Management of Road Maintenance Equipment and Spare Parts  
Rural Roads - Screening and Simplified Evaluation Techniques:  
Study Report  
Rural Transport Services: Study Report  
Notes on Transport Sector Work - Start of Series
- Quarter III: HDMS - Completion of India Road User Costs Study  
Guidelines for Road Maintenance Project Preparation and  
Evaluation  
Construction Industry Policy Paper
- Quarter IV : Model T.o.R. for Highway Safety Improvement Programs  
Case Studies in Labor-based Civil Works  
User's Manual to the Railway Model  
Rail Track Standards and Maintenance: Survey Report  
Rail Electrification Projects - A Screening Technique

FY 1984

- Quarter I : Costs and Control of Road Congestion: Guidelines for LDCs
- Quarter II : HDMS - Engineering Economics of Highways (Concluding Book)  
Review of Lending Experience: Fishing Port Projects  
Pricing and Taxation of Transport Fuels: Research Report
- Quarter III: Management of Road Maintenance Equipment & Spare Parts:  
Guidelines  
Institutional Aspects in Rural Road Projects: Study Report

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<sup>1/</sup> Highway Design and Maintenance Standards Research

Quarter IV: Railway Costing: State-of-the-Art Review<sup>1/</sup>  
Local Participation in Rural Road Development: Study Report  
Rural Transport Services: Policy Guidelines  
Potential for Domestic Shipping: Case Studies  
Road User Charge Policies and Structures: Policy Guidelines  
Effective Vehicle Axle-Load Control

FY 1985

Quarter I: Rural Roads Design Standards, Construction and Maintenance  
Bulk Handling Logistics and Terminal Design  
Policy Model on Demand for Personal Travel<sup>1/</sup>

Quarter II: Toll Road Financing: Review of Issues and Experience  
Deregulation Process: Reviews of Experience<sup>1/</sup>

Quarter III: HDMS: Report on Follow-up Studies in Selected Countries  
Railway Locomotive Maintenance Costs: Survey  
Rural Roads Screening and Simplified Evaluation: Policy  
Guidelines  
Construction Industry Project Preparation Guidelines  
Rural Roads Traffic Forecasting<sup>1/</sup>

Quarter IV: Subsidies in the Transport Sector: Study Report<sup>1/</sup>  
Port Pricing: A Case Study

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<sup>1/</sup> Accomplishment of these items will require resources (e.g. from Research Committee or non-Bank sources) additional to regular Departmental budget and not yet assured.



## OFFICE MEMORANDUM

TO: Managing Committee

DATE: November 5, 1982

FROM: Ernest Stern Senior Vice President, Operations

SUBJECT: Co-financing with Commercial Banks

Attached for the meeting on Monday, November 8, is the draft paper for the Executive Directors entitled "Co-financing with Commercial Banks". Subject to any changes suggested by the Committee, we would circulate this paper to the Executive Directors shortly after the "Question and Answer" paper for a meeting to be scheduled.

Attachment

FVibert:jda/ds

CO-FINANCING WITH COMMERCIAL BANKS

I. Introduction

1. The paper "Co-financing with Commercial Banks" (R82-211, dated July 2, 1982) proposed that the Bank start a trial program of new instruments for co-financing with commercial banks. In the light of subsequent discussions with Executive Directors the purpose of the present paper is:

- to place these proposals in the context of the current external financial situation of IBRD's borrowers;
- to present the choice of this particular range of instruments in the perspective of the parties to a co-financing and in the framework of other possible alternative approaches;
- to provide more precise guidelines for the main features of the trial - its size, duration and composition.

2. This paper concludes with a set of revised recommendations for the trial of new instruments. A supplementary paper providing further analytic material prepared in response to the questions raised by Executive Directors in the meeting of the Committee of the Whole has been circulated separately.

## II. Background

3. Since the mid 1970's the largest pool of external finance available to IBRD borrowers has been that provided by commercial lenders. On balance, this development has been highly favorable to borrowers. It has provided a large and flexible form of financing which would not have been available from official sources. It has also benefitted the host countries of lenders by stimulating the internationalization and competitiveness of the financial services sector.

4. The development has also had its negative aspects:

- . lenders have sometimes appeared to pursue growth of assets without due regard to their quality;
- . borrowers have sometimes availed themselves of market offers without sufficient regard as to whether the specific uses or the general underlying economic policies will support the repayment terms.

5. Following several years of rapid net expansion, growth of this form of lending appears to have slowed sharply amid signs of tension for both borrowers and lenders alike. Indeed, some borrowers face a situation of a net reduction in private lending.

6. Some of the reasons for the change in availabilities reflect the impact on lenders' attitudes of adverse real changes in the economic environment for borrowers. For example, the growth prospects of many borrowers have been reduced by the world economic slowdown and in particular their prospects for achieving rapid export expansion has been adversely affected by the stagnant volume

of world trade and by disadvantageous movements in their terms of trade. There have been other factors affecting the attitudes of lenders - for example, reasons to focus on domestic assets, a tendency to look at assets on a consolidated basis and a more active presence of banking supervisors.

7. Not only do borrowers face reduced availabilities from private lenders but terms have also been hardening. Costs (relative to LIBOR) appear to have been increasing, while maturities have been reduced. Moreover, these deteriorating conditions appear to be affecting the general climate of lending to developing countries in most regions without an accompanying discrimination that differences in country circumstances would warrant.

8. The Bank's means to assist in this situation are limited. In particular its own lending level is subject to capital constraints. The Bank, therefore, has to look to other ways in which it might support its borrowers. Co-financing has been the traditional way in which the Bank has attempted to link its operations with the lending activities of private sources of finance. The underlying features of co-financing are of particular relevance in current circumstances:

- . the linking of private lending to Bank projects gives lenders an assurance that loan proceeds are being used for priority investment purposes and at the same time helps the borrower maintain essential investment projects;



- the availability of the Bank's economic analysis can help co-lenders to develop a broader and longer term perspective on specific country economic prospects and can assist borrowers combat unwarranted caution.

9. However, in order to realize these benefits, the form of co-financing link has to be one that is attractive to borrowers and lenders. The co-financing record itself and extensive discussions with commercial lenders over the last year have suggested that the present form of co-financing link is of limited potential. In particular, it does not appear to have a decisive impact on the portfolio attitudes of lenders and their willingness to lend. Nor does it appear to have a measurable impact on the terms of lending, beyond assisting the borrower to obtain the best that the market can offer at that point of time. This situation has been recognized for some time (for example in the formation in September 1979 of the Development Committee's Task Force on Non-Concessional Flows) and well before the recent deterioration in borrowing conditions for developing countries. The present system of co-financing will continue to be actively promoted. However, the need for more robust instruments for co-financing which can address a wider variety of situations than hitherto and which can have a more significant impact on the attitudes of lenders, is now urgent.

10. Against this background it is essential for the Bank to put in place a flexible array of instruments for co-financing with more decisive attractions to lenders and correspondingly greater potential advantages to borrowers.

### III. The Approach to New Instruments

11. The range of proposed new instruments all involve IBRD taking, or standing ready to take, a participation in the commercial loan itself. They can be divided into two groups according to the proposed manner of participation: those involving IBRD taking a direct financial stake in the later maturities of a commercial loan (or pro rata) and those involving IBRD offering a guarantee or accepting a contingent obligation. 1/

12. This range of new instruments has been developed in the light of the following major criteria:

- . the need to provide clear attractions for each of the three parties involved in a co-financing (in particular for the borrower, as well as the co-lenders and the Bank itself);
- . the need to review possible alternative approaches;
- . the need to have instruments with a good prospect of success in the market place without which the desired benefits cannot be obtained for borrowers.

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1/ Attachment 1 provides a summary description of each of the instruments.

13. This section outlines the way in which the proposed new instruments have been developed in respect of each of these criteria:

a. The Interests of the Parties to a Co-financing.

14. The potential new instruments have been examined from the point of view of the interests of each of the three parties involved in co-financing - the borrower, co-lenders and the Bank itself. In arriving at a judgement, it has to be recognized that in order to obtain additional advantages from the relationship each of the parties must offer something. Expressed differently, there is a "cost" which has to be weighed alongside the benefits. This section describes how the new instruments are intended to provide a net advantage to the borrower, while providing at the same time a net appeal to lenders.

15. From the borrower's perspective the potential advantages of the new instruments are the prospects that:

- . established commercial lenders will lend more than otherwise obtainable;
- . banks that have not hitherto lent, or are not currently lending, may be encouraged to lend;
- . maturities will be longer. 1/

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1/ The precise maturities that can be obtained will depend on the general state of the market and the standing of the particular borrower. In conditions where costs to borrowers are increasing, it may be possible for the borrower to obtain some lowering of costs.

16. In order to obtain these potential advantages the borrowers must decide to offer something or give something up. The main "costs" are: first, that part of IBRD resources may be obtained on commercial terms with regard to interest rate and currency, rather than on standard IBRD terms. 1/ Secondly, the borrower will lose some flexibility in managing future balance of payments crises by according a de facto preferred status to these special debts.

17. These "costs" are somewhat less than might appear at first sight. Possibly higher interest rate costs on the use of a part of Bank resources will be offset to some extent by longer maturities than might otherwise be obtainable from IBRD and some borrowers might prefer the choice of a single currency. Moreover, if the Bank's portion is sold down or if the guarantee is released, the resources will be available for relending to support the country program. Furthermore, in the case of the contingent obligation option there is the possibility that such operations could be additional to the Bank's regular lending. 2/ Finally, the preferred status

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1/ Both lending rates are market based rates. [A note comparing the market nature of the Bank's rate with the market rate of commercial lenders is included in the paper "Co-financing with Commercial Banks" - Supplementary Analysis".]

2/ The contingent obligation would count against the Bank's legal lending limit, only when drawn upon. In the interim, the Bank gains additional leverage. (For further details see "Co-financing with Commercial Banks - Supplementary Analysis" page \_\_\_\_.)

of a B loan may be an inducement to the maintenance of new flows from lenders in situations of difficulty.

18. In each instance of a potential B loan transaction it will be for the borrower to decide whether the likely benefits of the co-financing with the new techniques are worth the "costs". This assessment will vary from borrower to borrower and change in the light of different market conditions.

19. From the co-lender's perspective the potential advantage of the new instruments is a more assured sense that the co-financing will offer improved protection in times of general balance of payments difficulties of the borrower because the Bank would be prepared to undertake a defense of the B loan in its entirety. This advantage of added protection against country or "sovereign" risk or other difficulties is additional to the normal feature of co-financing that the project itself is a sound one and of high priority to the borrower. Lenders may also attach importance to the Bank's monitoring of the use of the proceeds of the B loan.

20. In order to obtain these advantages the lenders have to offer clear benefits to borrowers. In particular the lender will need to show a significant stretching of maturities in the transaction compared with what they might otherwise have offered. In addition, the borrower and the Bank will be looking for lenders to take on additional or new exposure in developing countries. Moreover, in the event of discussion of the application of remedies if loan difficulties arise, the Bank itself will have a major and possibly preponderant voice within the syndicate.

21. Not only will lenders have to offer clear benefits to the borrower in order to obtain the advantage of the Bank umbrella but also it should be emphasized that the option of a B loan technique will not be at the choice of the co-lender but rather will be explored at the discretion of the Bank and the borrower. Only if the borrower and IBRD are together satisfied that the offer made by the co-lender is significantly better than could otherwise be obtained from the market would the borrower and IBRD proceed to implement these techniques.

22. The advantages to IBRD from a wider range of co-financing instruments is the assurance that commercial financing foreseen as necessary to complete Bank projects is likely to be mobilized, can be secured in a wider variety of borrower circumstances, and can be obtained on terms more nearly appropriate to the project and the country's repayment capacity. If the Bank had more resources of its own to lend directly, these financing gaps might not arise. However, the actual situation, current and foreseen, is one where the financial needs of borrowers for high priority investments suitable for Bank support far outrun the Bank's own actual and prospective resources.

23. Against these advantages there is a potential cost to the Bank. The main potential "cost" is the risk that involvement in a commercial transaction could make it more difficult for the Bank to defend its preferred creditor status. However, the Bank cannot be forced into an involuntary

rescheduling of its own portion of the B loan. Its ability to defend its position will continue to rest, as now, on borrowers and lenders, both official and commercial, agreeing to respect the Bank's privileged position. This position will continue to be upheld by the Bank and its shareholders as long as it is perceived that participation in a rescheduling of co-financed assets could damage the general financial position of the Bank. Moreover, the Bank's policy of not rescheduling its loans will be reflected in the documentation of each B loan.

24. A second potential cost to the Bank would arise if it transpired that closer association with private lenders would damage the "image" of the Bank and make it more difficult to obtain future capital increases. This perception appears, however, at variance with the Bank's need to demonstrate a sparing use of its own capital and, moreover, in contradiction to the Bank's stated purpose in its Articles to assist its borrowers in tapping private sources of capital. The development criteria that guide the distribution of Bank lending to its borrowers, the sectors of lending and the projects to be selected for financing, will not be affected by the new instruments.

25. The new instruments therefore reflect a careful weighing of the interests of each of the parties involved. Whether the potential advantages can in fact be realized will depend on the market appeal of the new instruments. If it appears, in any potential trial case, that initial

soundings of the market suggest that advantages will not materialize for the borrower, neither the borrower nor the Bank itself would wish to proceed further.

b. The Alternatives.

26. Before arriving at the proposals for Bank participation in commercial loans, two main possible alternative approaches were examined. One alternative approach extensively discussed with the banking community was for a mandatory cross default provision between a commercial co-loan and the IBRD loan. However, closer examination of this approach showed that, despite the considerable symbolic appeal of closer association between the Bank and commercial lenders, it had limited practical appeal to commercial banks. Moreover, the fact that one particular and extreme remedy could be applied in a way to effect the Bank's regular lending relationship with a borrowing country without the involvement of the Bank in arriving at the decision on that remedy, was clearly neither in the interest of the borrower nor the Bank itself.

27. A second alternative approach, extensively discussed, was the sale of participations in a Bank arranged co-loan. The paper "Co-financing with Commercial Banks" left open the possibility of employing this approach as a supplementary instrument. However, market soundings, while confirming a market for this approach, were clear in indicating that it would not be likely to achieve the best



results for the borrower. Moreover, the potential liabilities incurred by the Bank, particularly in relation to the disclosure of normally confidential information, constitutes a very serious drawback.

c. Market Soundings.

28. Discussions with the banking community not only established the B loan approach as the most promising way of widening the instruments for co-financing but also showed a very clear and widespread preference for those options that involved a direct IBRD financial stake in the co-loan.

29. Some banks, however, recognized that the Bank itself might have a preference for options that did not involve the Bank lending its own resources in this way but rather involved the Bank's guarantee or ability to accept a contingent obligation. These other "non funding" options have been envisaged as a means to reduce the Bank's recourse to capital markets for funding operations, and to open up the possibility of increased leverage on the Bank's capital base.

30. Nevertheless, testing of the reaction of different banks and different parts of the market to these other "non funding" options showed reservations by some important lenders and generally less market appeal. A trial of new co-financing instruments based exclusively on the guarantee and contingent obligation options would restrict them to a thin and narrow market. This in itself would greatly reduce the possibility of obtaining the advantages to borrowers

that are sought and would imply that the Bank would have to increase very substantially the portion of the loan it would be guaranteeing. This finding has suggested very strongly that the Bank should test a range of means for structuring its own participation in the commercial loan. The proposals therefore have envisaged the need to test a variety of new instruments with both "funding" and "non funding" options.

31. Against this background of the reasons for testing this particular range of new instruments, the next section examines the size and duration of a reasonable market trial for them.

#### IV. Size and Duration of Trial

32. Currently, co-financing opportunities for commercial banks average around \$150 million per operation. It is among these current opportunities that test cases would be sought.

33. There is no precise way of arriving at any given number of such co-financings that would provide a conclusive market test. However, the trial needs to be sufficiently broad to establish the applicability (or non applicability) of the new instruments to:

- . a variety of borrowing country circumstances in the market place;
- . wide sector coverage;
- . banks in the major capital markets of North America, Europe, the Middle East and East Asia;
- . banks of different asset size and international exposure, particularly including those new to the specific country concerned in the test.

34. Furthermore, it should be borne in mind that the initial cases to be tested should not explore situations which might lead to difficulties in obtaining market acceptance for the new instruments. Any "tainting" of the new instruments would jeopardize their chance of success in the more ambitious circumstances or formulations that could be tested at a later stage in the trial. This means that the first cases should not take risks with market acceptance and not include either the weakest borrowers or banks with little familiarity with international lending.

35. Although judgements might be possible at an earlier stage in a test program, a trial of around 15 - 20 such operations would appear to allow for a conservative start to a program and the testing of the more difficult objectives at a later point. Assuming a Bank share in each operation of around 20%, the total size of the Bank resources involved would be in the range of \$450-600 million.

36. Specific candidates for the trial period have not been discussed with borrowers in more than a few instances pending the Board's approval of the start of a trial. Test cases would be chosen from projects where the need for co-financing is likely to arise over the next 12 - 18 months. In order to allow for an orderly start for the program and some slippage in preparation, a duration for the trial of two years would appear to provide for a reasonable market test.

37. Each B loan operation would require the approval of the Board of Executive Directors and special procedures are envisaged to reflect the way in which B loans would be placed in the market. 1/

**V. Revised Guidelines for the Trial**

38. Within the overall dimensions of the trial discussed above there is a need to clarify the main features of the test instruments themselves; in particular:

- . the range of instruments to be tested;
- . the size of Bank participation;
- . the terms of Bank participation;
- . the way in which they would be treated in the Bank's financial statements.

(i) The Range of Instruments.

39. There are certain advantages to those options where the Bank would provide a guarantee of later maturities or accept a contingent obligation to finance later maturities:

- . administrative simplicity (for example, in relation to procurement and disbursement procedures);
- . the fact that (unless called) the Bank would not need to borrow;
- . greater ease in applying the Bank's standard lending rate if either option is actually invoked.

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1/ See "Co-financing with Commercial Banks - Supplementary Analysis", page \_\_\_\_.

40. However, against these potential advantages as seen from the perspective of the Bank, must be weighed the cost of the guarantee fee and, more importantly, the prevailing reaction from the commercial banking community that the options involving a Bank financial stake will be much more widely acceptable in the market. As mentioned above, reservations were expressed by some important banks on the marketability of the guarantee and contingent obligation options. This reaction cannot be too lightly disregarded. A thin or narrow market will work directly counter to the overall objectives of the new instruments to assist borrowers raise additional finance on better terms than otherwise available from the market. It could reduce severely the possibilities of bringing in new or second tier banks with less expertise and familiarity in placing international loans. It seems, therefore, essential that the Bank retain the option to take a direct financial stake in the later maturities of a B loan.

41. As was stated in the earlier paper, the option involving pro rata Bank participation in the commercial loan, stands apart from the other instruments in having the specialized objective of introducing or reintroducing borrowers to the market in conditions where market receptivity would be questionable without Bank participation in earlier as well as later maturities. Since, as mentioned

above, it would not seem prudent to test the market for the weakest borrowers during the trial period, this option would not be utilized during the trial period.

42. The test would include a sale of participations option in applicable circumstances.

(ii) Size of Bank Participation.

43. It had been earlier suggested that the Bank should be prepared to take up to a 25% portion of the B loan. Expressed more precisely this would mean:

- . guaranteeing later maturities up to 25% of the total principal of the loan;
- . accepting contingent obligations up to a limit or "cap" of 25% of the principal amount;
- . taking a direct financial stake in later maturities up to 25% of the principal amount of the loan.

44. There are two benchmarks within which the size of Bank participation can be measured. A "significant" Bank presence is needed in the first instance to provide co-lenders with "comfort" from the Bank's participation. This is a subjective measure and judgements might differ according to market and borrower circumstances as to what minimum size of Bank participation would achieve this objective. Soundings have suggested that a 10% share would broadly meet this requirement.<sup>1/</sup> The second benchmark is the share necessary for

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<sup>1/</sup> Pro rata participation by the Bank therefore envisages a Bank share of this proportion.

the Bank's participation to lengthen maturities by up to another three years beyond the point to which the commercial banks were themselves prepared to stretch their loan. Depending on the precise repayment profile, this calculation suggested a Bank share of up to 25%.

45. A lower maximum share for Bank participation could be set as a target if it is understood that it could reduce the average maturity of the B loan. In setting a lower target share of say 15-20% it would be desirable to have flexibility to go beyond if necessary to secure the maximum extension of maturities.

(iii) Terms of Bank Participation.

46. It was earlier proposed that the Bank should participate in the co-loan on commercial terms (typically LIBOR plus a spread). There were three main reasons for this approach. First, market acceptance of the instrument is likely to be greater, particularly with smaller or less experienced banks. Two considerations are involved. One consideration is that the market is simply more familiar with a single currency based rate rather than a pool based rate and funding is usually dollar based. The other consideration is that the more that separate tranching

provisions have to be introduced in respect of the Bank's share to allow for different terms and conditions of its participation, the less "psychological comfort" may co-lenders draw from the Bank's presence. Secondly, it is desirable for the Bank to have the possibility of selling down its share (or having its guarantee taken out) as the B loan advanced in its life. Such possibilities are greatly enhanced if that portion of the loan is on normal commercial terms. As soon as the loan is sold down, the proceeds can be relent by the Bank either at its standard terms or in a further B loan operation or the headroom created by the release of the guarantee can also be reused. A third reason was that it was felt that the pricing of the Bank's participation should be consistent with minimizing the Bank's presence in the co-loan. This meant avoiding giving borrowers a possible incentive to request a larger or more prolonged Bank presence in the transaction beyond the point required by market considerations.

47. Technically, the Bank could participate in a B loan at its standard rate in options where it would have a direct financial stake. It would, however, have a "cost" in terms of tending to raise the Bank's share in the transaction and sharply reducing the possibility of sell down. 1/ In other

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1/ However a study of the possibilities of structuring an active program of loan sales is being undertaken and will be completed during the trial period.



words a larger share of Bank capital would be committed for a longer period in order to achieve the objectives of the co-financing. If these costs are accepted, the Bank could participate in a B loan involving it taking a direct financial stake on its standard terms. The choice could be left to the borrower to decide in the context of a particular transaction.

(iv) Accounting

48. The accompanying analytic note indicates the way in which B loan transactions could be recorded separately within IBRD's assets.

Conclusions and Recommendations

49. Difficult market conditions for IBRD borrowers make it even more timely for the Bank to introduce a robust range of co-financing instruments which will have a more decisive impact on the attitudes of commercial lenders and offer correspondingly greater potential advantages to IBRD's borrowers. Not all borrowers will wish to avail themselves of such instruments, but for some they hold the promise of accessing commercial flows not otherwise available and on terms not otherwise attainable. Such a development will be fully in accord with the Bank's objectives as a development finance institution. Recognizing the constraints on the Bank's resources which limit the Bank's ability to increase its own lending does not mean that a request to shareholders for a timely increase in IBRD's own capital base will be delayed. On the contrary, it is essential for the Bank to demonstrate that

it is using its existing capital base to the full - including in an active catalytic role vis a vis other lenders, both private and official.

50. Accordingly, it is now recommended as follows:

- . the amount of IBRD exposure in the trial of B loans would be limited to \$500 million;
- . the duration of the trial would be for up to two years;
- . pro rata participation by IBRD in a B loan would not be included as an option in the trial;
- . IBRD financial participation in later maturities would be included among the trial options however:
  - commercial lenders would be informed of the Bank's preference where possible for non funding options (options ii and iv);
  - the possibility of IBRD participating in such a transaction on its standard lending terms would be exercised at the option of the borrower.
- . the trial would include a potential sale of participation operation if agreeable to the borrower and the relevant part of the market;
- . the Bank's share in a B loan would be limited to a maximum of 25% of principal but a lower target range of 15-20% would be set in the case of option (i);
- . "B" loan participations would be treated separately amongst IBRD assets.

"B" Loan Options

The paper "Co-financing with Commercial Banks" (R82-211, dated July 2, 1982) distinguished between four types of "B" loans. For ease of reference, these are set out again below together with a reference label.

Option (i) Funding Latter Maturities

IBRD would take an initial share of the loan of up to about 25%, concentrated in the latter maturities.

Option (ii) The Contingent Obligation

The loan would be initially financed entirely by the commercial lenders. Annual debt service would be based on a level amortization of principal and interest even though the interest rate would be variable.

The IBRD contingent commitment would be to finance at a given date (i.e., at the end of the duration considered "normal" by the commercial markets for the specific borrower), the remaining balance of principal (if any) if the commercial lenders choose not to finance this amount.

Option (iii) Funding Pro Rata

IBRD would take a pro-rata share of about 10% in each maturity of the commercial loan.


Option (iv) The Guarantee

An IBRD guarantee could substitute for IBRD funding in options (i) and (iii) described above.

|  |                         |          |                      |
|--|-------------------------|----------|----------------------|
| ROUTING SLIP   |                         | DATE     | 11/4/82              |
| OFFICE OF THE SENIOR VICE PRESIDENT, OPERATIONS  |                         |          |                      |
| NAME   |                         | ROOM NO. |                      |
| Members of the Managing Committee  |                         |          |                      |
| cc: Messrs. S.S.Husain, Flood, Hasan,<br>Schrenk.  |                         |          |                      |
| Messrs. Wuttke, Wiener, Gabriel, Baum<br>Vergin, Waide, Chernick   |                         |          |                      |
|  |                         |          |                      |
|  | To Handle               |          | Note and File        |
|  | Appropriate Disposition |          | Note and Return      |
|  | Approval                |          | Prepare Reply        |
|  | Comment                 |          | Per Our Conversation |
|  | Full Report             |          | Recommendation       |
|  | Information             |          | Signature            |
|  | Initial                 |          | Send On              |
| REMARKS  |                         |          |                      |
| Attached is supplementary documentation (OPS/MC82-35) to the KOREA CPP for review by the Managing Committee on November 8, 1982. |                         |          |                      |
| FROM   |                         |          |                      |
| Ernest Stern <i>ES</i>   |                         |          |                      |

## OFFICE MEMORANDUM

TO: Mr. Ernest Stern, Senior Vice President, Operations DATE: November 3, 1982

FROM: Edward V.K. Jaycox, Acting RVP, AEN 

SUBJECT: Korea CPP, Managing Committee Review, Memo by Mr. Waide, dated November 1, 1982

1. Mr. Waide's memorandum expresses in para 7 the more cautious view of CPD and PAB with respect to Korea's public finance and external debt situation. It states that the financing of the budget deficit may reach 4.8% of GNP in 1982 and could jeopardize the country's effort to curb inflation. In fact, the budget deficit amounted to 4.9% in 1981, and will most likely decline to 4.3% in 1982. In any case, the public sector deficit as such has had only a minor role in stimulating inflation in Korea in the past and this is likely to remain so. The main internal stimulus for inflation in the past were monetary and credit policies through a vast system of directed and subsidized credit which is being dismantled. The Government remains committed to its financial liberalization program and we do not see any reason to doubt achievement of these reforms. Inflation (WPI) now stands at 2.1%<sup>1/</sup> as opposed to 20.4% a year ago. As a result of the curb market scandal, more financial transactions were integrated into the official sector and this required an upward revision of the monetary targets for 1982. However, a reduction in the monetary and credit growth targets for 1983 will be essential if inflation is to remain under control. We understand that the Government plans a substantial reduction in the growth of monetary aggregates, but further analysis will have to await the December 1982 release of the Government's 1983 Economic Management Plan.

2. With respect to the external debt, Mr. Waide's memorandum refers to debt of the commercial banks - and therefore sets forth a partial analysis. At end 1981, total short-term debt as a proportion of total debt stood at 38% and the situation has considerably improved during the course of 1982, as compared to the 5th Plan projections. Furthermore, short-term debt for Korea has to be put in perspective. As Korea is a highly export oriented country, short-term credit plays a large role in its total external debt. With imports accounting for 45% of GNP in 1981, it is not astonishing that short-term debt was 38% of total debt outstanding in 1981, or 20% of GNP, i.e. short-term credit was equivalent to 5.3 months of imports (G&S) in 1981. Two-thirds of total short-term debt is trade credit which is relatively risk free and virtually automatically available to Korea manufacturers and traders. Following the 1979 oil price increase and tight domestic credit, trade credit rose from the usual 3 months of imports equivalent to 4 months in 1981, as during the first oil crisis. The other third of short-term credit represents swap arrangements of foreign bank branches in Korea usually with their home office. This is the result of the particular technique adopted by the Government over the past years to open the

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<sup>1/</sup> August 1981 to August 1982.

November 3, 1982

financial sector to foreign banks. Since these are inter-office transfers there is again no concern for external debt management. In short, in prevailing economic conditions there is nothing much the Government can do to reduce the share of short-term debt if it remains committed to an export oriented development strategy and a gradual opening of its financial markets.

3. As the result of the dramatically improved balance of payments situation (the current account deficit for 1982 is now estimated at about \$2 billion, compared to a forecast of \$4.4 billion at the beginning of the year), the debt situation has already improved markedly. Total debt outstanding will increase to \$35.7 billion at the end of 1982 or by \$2 billion less than originally projected. Virtually all the net increase is in form of MLT debt. As a result, the share to short-term debt is likely to decline in 1982 to 36% of total debt outstanding. Fear of a "significant deterioration of the overall balance" is therefore in our view unwarranted. We will of course keep this situation under close review, and we agree that debt management is a legitimate matter for discussion with the Koreans.

Attachments

GPohl:jb

cc: Messrs. Husain, P. Hasan, Flood, Schrenk

Waide, Chernick, Robless

Table 1: Operations of Central Government and  
Consolidated Public Sector 1981-82

|                                   | (Billion won) |               |   |
|-----------------------------------|---------------|---------------|---|
|                                   | <u>1981</u>   | <u>1982</u>   | <u>1982</u>                               |
|                                   |               | <u>Budget</u> | <u>Latest<br/>Government<br/>Estimate</u> |
| <u>Central Government</u>         |               |               |   |
| Expenditure                       | 10,127        | 11,882        | 11,574                                    |
| Revenue                           | 8,628         | 10,931        | 10,177                                    |
| Deficit (-)                       | -1,499        | - 951         | -1,397                                    |
| <u>Consolidated Public Sector</u> |               |               |   |
| Expenditure                       | 11,481        | 12,493        | 12,474                                    |
| Revenue                           | 9,354         | 11,093        | 10,876                                    |
| Deficit (-)                       | -2,127        | -1,400        | -2,136                                    |
| (Per cent of GNP)                 |               |               |   |
| <u>Central Government</u>         |               |               |   |
| Deficit                           | 3.5           | 1.8           | 2.8                                       |
| <u>Consolidated Public Sector</u> |               |               |   |
| Deficit                           | 4.9           | 2.7           | 4.3                                       |

November 3, 1982  
Korea Division

Table 2: External Debt 1981-82

(Million US\$)

|                         | <u>1981</u>  | <u>1982</u>     | <u>Net</u>    |
|-------------------------|--------------|-----------------|---------------|
|                         |              | <u>Estimate</u> | <u>Change</u> |
| <u>MLT Debt</u>         |              |                 |               |
| Maturities over 3 years | 18,881       | 20,853          | +1,972        |
| Maturities 1-3 years    | <u>623</u>   | <u>723</u>      | <u>+ 100</u>  |
| Total MLT Debt          | 19,504       | 21,576          | +2,072        |
| <u>Short-term Debt</u>  |              |                 |               |
| Private                 | 4,089        | 3,906           | - 183         |
| Financial Sector        | <u>8,465</u> | <u>8,991</u>    | <u>+ 526</u>  |
| Total Short-term Debt   | 12,554       | 12,897          | + 343         |
| Total Debt Outstanding  | 33,304       | 35,719          | +2,415        |

November 3, 1982  
Korea Division



## OFFICE MEMORANDUM

OPS/MC 82-34

TO: Members of the Managing Committee

DATE: 1 November, 1982

FROM: E. Bevan Waide, Director, CPD

SUBJECT: KOREA CPP: Managing Committee Review, Monday, November 8, 1982,  
at 9:30 a.m. in Room E-1227

1. The Korea CPP was reviewed by the Operational Policy Sub-Committee (OPSC) on June 25, 1982. The agenda for that meeting is attached. The discussion centred on the realism of the projected medium term growth scenario and on appropriate Bank strategies towards the rural sector, the financial sector and the transport sector. The adequacy of the proposed steps to secure co-financing for the lending program was also discussed.
2. With regard to the medium-term growth scenario, questions were raised as to whether or not it was excessively optimistic, particularly in light of Korea's heavy dependence on exports and the expected slow growth of the industrialized countries and other industrializing developing countries. The Region agreed that the lower growth of the world economy was a detracting factor, but thought, nevertheless, that the projections for exports were reasonable in light of Korea's past performance. Moreover, Korea's domestic market has reached the point at which there is some room for efficient import substitution as a secondary source of growth. The Region noted also that the Government was aware of the uncertainties and, as in the past, intended to respond flexibly and make those policy adjustments required by the unfolding situation.
3. With regard to the rural, industrial and transport sectors, the Region was requested to elaborate on the Bank's strategy and the nature of the proposed lending. The Region's response is incorporated in the attached final draft of the CPP, i.e., paragraphs 32, 33 and 63 (Financial Sector), paragraphs 66-67 (Rural Sector) and paragraphs 75-77 (Transport Sector). The discussion on the financial sector also takes into account policy measures adopted by the Government after the OPSC Review. With regard to co-financing, it was felt that the draft CPP, which stressed Korea's ability to raise complementary foreign resources on its own and its traditional reluctance to engage in co-financing, gave the appearance of a passive attitude towards the issue. The draft has been revised (paragraphs 81 and 82) to reflect more accurately the active role which the Region has in fact been pursuing with regard to co-financing in Korea.
4. Given Korea's relative ease of access to the other sources of medium- and long-term capital and the scarcity of IBRD resources, the OPSC felt that the Region's proposal for a lending program of \$3,500 million for FY83-87 was somewhat high and a figure of \$3,250 million was recommended.
5. Subject to these modifications, it was agreed to recommend approval of the CPP to the Managing Committee. Shortly after the OPSC meeting, the Government of Korea adopted a wide-ranging set of economic

measures, including a reduction in interest rates, lowering of corporate tax rates, expansion in money supply growth targets and regulatory steps to discourage future transactions in the curb money market. The expansionary measures at a time of world recession raised questions as to the continuing government commitment to the structural adjustment process and financial sector reforms which form both the centrepiece of the Government's medium-term development strategy and the focal point of the Bank's lending strategy described in the CPP. The Region subsequently sent a mission to Korea to assess the new measures (with the immediate purpose of determining whether the second tranche of the SAL should be released).

6. The mission found that the current account balance of payments deficit and rate of inflation had come down at a rate much faster than had been anticipated just a few months earlier. The improvement in the current account of the balance of payments occurred in spite of the relatively slow growth of exports and was attributable to sharply increased overseas construction receipts, falling import prices and stagnant import volume. The mission concluded that the bold and somewhat unexpected reflationary steps were, by and large, justified in view of the sharp turnaround in the current account and continued sluggishness of economic activity, and that the commitment to medium-term structural adjustment remained strong, though the liberalization of the financial system might now take longer than initially anticipated. The mission's findings and conclusions were reviewed by the SVPOP in the context of the SAL tranche review. The second tranche was released on August 25, 1982.

7. CPD and PAB take a more cautious view than the Region on the impact of the Government of Korea's recent economic measures. The measures essentially focus on stimulating domestic demand and entail a larger budget deficit, substantially lower interest rates and a major expansion in money supply. The financing of the budget deficit, which may reach 4.8 percent of GNP in 1982, could jeopardize the country's effort to curb inflation. As the Region notes, there has been an improvement in the current account of the balance of payments, though the overall balance appears to have deteriorated significantly because of capital outflows, with a consequential build up of short term foreign liabilities. This underlines CPD and PAB concerns, expressed in the OPSC Review Agenda of June 21, about Korea's recent heavy reliance on short-term debt which may have reached prudent limits and could seriously affect Korea's future debt management ability. According to BIS data at the end of 1981, no less than 58 percent of Korea's total DOD to commercial banks of \$19.9 billion was repayable within one year. In these circumstances, CPD and PAB reiterate their recommendations that, simultaneously with close monitoring of the macro-economic policy and the corresponding provisions of SAL I, external debt management be considered a priority topic in the Bank's policy dialogue with the Government.

Attachments

cc: Messrs. Wuttke  
Gabriel

EAP/CPD/PAB/sep

## OFFICE MEMORANDUM

CONFIDENTIAL

TO: Operations Policy Sub-Committee

DATE: June 21, 1982

FROM: E. Bevan Waide, Director, CPD YBW

DECLASSIFIED

SUBJECT: KOREA CPP: OPSC Review

FEB 16 2017

WBG ARCHIVES

1. Attached is an agenda and comments on major policy issues identified by CPD and PAB for consideration by the Sub-Committee. The suggested agenda items are:

- (i) Korea's future growth;
- (ii) the problem of employment;
- (iii) the problem of short term debt; and
- (iv) the size of the lending program.

2. The Review meeting will be held on Friday, June 25, 1982, at 2:45 p.m. in Room E-1208.

## Attachment

cc: Regional Office: Messrs. Hasan  
Kirmani  
Jaycox  
Flood  
Hawkins  
Schrenk  
Ruddy

cc: Messrs. Wuttke  
Robless  
Chernick

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FEB 16 2017  
WBG ARCHIVES

## Country Program Paper

KOREA

September 15, 1982

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### Distribution

#### *Operations Policy Sub-Committee*

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Vice President, Energy and Industry Staff  
Vice President, Economics and Research Staff  
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#### *For Information*

Directors, Operations Policy Staff  
Directors, Energy and Industry Staff  
Director, IFC Investment Department concerned  
Director, Economic Analysis and Projections  
Department  
IMF, Area Department concerned

#### *Other Attendance*

Executive Vice President, IFC  
Director, Country Policy Department  
Chief, Country Assistance Division, CPD  
Chief, Country Program Review Division, PAB

FEB 16 2017

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WBG ARCHIVES

September 15, 1982

COUNTRY PROGRAM PAPER  
KOREA

|   | <u>FY77-81</u> | <u>FY82-86/c</u> | <u>FY83-87</u> |
|---|----------------|------------------|----------------|
| 1980 population: 38.4 million <u>/a</u> | 2,213.5        | 3,100.0          | 3,250.0        |
| 1980 per capita GNP: \$1,516/ <u>a</u>  |                |                  |                |

Current population  
growth rate: 1.8% p.a.

|                                  |      |      |              |
|----------------------------------|------|------|--------------|
| No. of Loans                     | 30   | 24   | 23/ <u>b</u> |
| No. of Loans<br>per million pop. | 0.78 | 0.63 | 0.60         |

Current Exchange Rate:  
Won 750 = US\$1.00

Average Lending Per Capita Per Annum: Current \$ (Const. FY81 Commitment \$)

|      |                |                |                |
|------|----------------|----------------|----------------|
| IBRD | 11.5<br>(13.7) | 16.1<br>(13.3) | 16.9<br>(13.3) |
|------|----------------|----------------|----------------|

/a World Bank Atlas, 1981.

/b Excluding coal mining pre-investment.

/c The FY82-86 lending program proposed in this CPP compares with the program for the same period approved at the last Bank-wide lending program review (October 16, 1981), as follows:

|   | <u>FY82-86 Lending Program</u> |                 | <u>Percentage Change</u> |
|---|--------------------------------|-----------------|--------------------------|
|   | <u>Approved</u>                | <u>Proposed</u> | <u>Proposed/Approved</u> |
| No. of loans  | 25                             | 24              | -4%                      |
| Current \$ million                                    | 3,150.0                        | 3,100.0         | -2%                      |
| Constant FY81 Commitment                              | 2,588.3                        | 2,554.0         | -1%                      |
| Per capita per annum<br>(Constant FY81 Commitment \$) | 13.6                           | 13.3            | -2%                      |

INTRODUCTION

1. Korea is passing through a period of transition both politically and economically. At one level the political transition seems complete, as the Chun regime which took office in 1980 appears to be in firm control of the main instruments of political power. At another level, however, the Government is still struggling to establish its legitimacy. Its takeover was accomplished through repressive measures which frustrated the aspirations of many Koreans for the development of more democratic processes and institutions. Although overt opposition is almost nonexistent, the Government appears anxious to broaden its base of support, and with meaningful liberalization in the political area ruled out ostensibly for security reasons (relations with North Korea show no signs of improving), attention is being focused on perceived grievances of the population in the social and economic spheres. As the current Government sees it, the 1970s strategy of growth at all costs led to high rates of inflation, excessive concentration of economic power in a few hands and inadequate attention to the needs of the middle and lower income classes in the rapidly growing urban centers for education, housing, water supply, health care, and social security. Also in this Administration's view, the excessively long tenure of the Park regime and its close association with big business interests had been a corrupting influence on the Government bureaucracy, and "purification" was in order.

2. These "new" concerns do not mean that the Government is turning away from the objective of high growth rates. The Fifth Five-Year Development Plan reflects the conviction that these concerns plus the expected harsher world environment can be accommodated while achieving rates of growth averaging about 7.5% p.a. during 1982-86. The commitment to an outward oriented development strategy is restated with emphasis placed on reducing protection levels further, in order to foster the kind of efficiency necessary to compete externally, especially in technology intensive industries which are relied on to provide the major impetus for Korea's future growth.

3. In important respects the Government's political strategy is strengthening the hand of those officials within the Administration who have been arguing (since well before this Government took office) for reduced Government intervention in the economy. The previous Government's strong support for heavy and chemical industries was effected in substantial measure through the system of directed credit through the government-controlled banking system. In line with the views of the proponents of a more market oriented development strategy, some initial steps are now underway to reduce the scope of directed credit, to eliminate differential interest rates and to allow more autonomy in the management and

operations of the banking system. On the other hand, it is possible that the primacy being given to the price stability objective will weaken the Government's resolve to allow the exchange rate to move as needed to assure export competitiveness. Also the fiscal implications of the planned major expansion in social services is already causing some rethinking of its pace and scope. Finally, wholesale personnel changes within the public sector when the Chun Government assumed direct control in September 1980, while perhaps ridding the Government of substantial numbers of inefficient even corrupt officials, appears to have weakened at least temporarily the technical capacity of some of the Government bureaus concerned with development issues.

4. The business and financial community seems uncertain how to react to the new directions being charted by the Chun administration. Whatever positive feelings have been engendered by the Government's announced intention to allow greater play to market forces is tempered by (1) skepticism as to how far the Government policymakers and bureaucrats will in practice loosen the reins, (2) lack of preparedness to deal with such relaxation of controls as is taking place (most of the commercial banks, for example, have a poorly developed capacity to assess credit risk and, according to some observers, are "standing around waiting for someone to tell them what to do"), and (3) a reluctance, at least among the beneficiaries of the old system, to give up the kind of close relationship between Government and business that existed under President Park. The Administration itself seems uncertain as to what the proper relationship should be between Government and business. In the meantime, until the rules of the game are better defined, private sector investment remains low.

5. All of the above suggest that, even though the Government is getting a number of policy instruments in place (supported by the December 1981 structural adjustment loan) to deal with the challenges of the next several years, Korea's dependence on external factors continues to be substantial, there are uncertainties in the internal environment, and there will continue to be an important Bank role at both the macro and sectoral levels over the next few years. And the role will be a challenging one - to help the Government fashion a unified set of policies which take into account trade-offs between objectives as the Government pursues ambitious goals of high growth with price stability and greater equity in a difficult world environment, and in the process grapples with fairly fundamental questions as to how far and how fast to move away from the interventionist policies that by-and-large served the country well through most of the 1960s and 1970s.

POLITICAL TRENDS

6. Throughout most of its history Korea was governed by authoritarian rulers who exercised their power by means of a state bureaucracy. However, since the transfer of power by the US military command to Korea's first President, Syngman Rhee in 1968, the Government has had the formal structure of a constitutional democracy. Lacking cultural and historic roots, these institutions proved extremely vulnerable and were easily manipulated by President Rhee. While the trappings of democracy such as separate executive, legislative and judicial bodies, periodic elections, etc., persist to this day, the power has always been concentrated in the hands of the President (except for a one-year period when a genuinely democratic but very weak government was in charge). Political parties have survived to become an apparently permanent feature of the political system, but they are not issue oriented, do not represent distinguishable interest groups and tend to rise and fall with the fortunes of politically ambitious individuals. This weakness of the political parties may be explained in part by the cultural and ethnic homogeneity of the populace and the value placed on seeking consensus. But a high degree of political repression has also been a major contributing factor.

7. The Korean armed forces, which had been disbanded by the Japanese early in this century, developed as an effective institution during the Korean War and gathered considerable strength in the years thereafter. They first exercised their political muscle when they engineered a coup d'etat in 1961, and have been effectively the dominant political force ever since. Within the military, first President Park and more recently President Chung secured substantial personal control over the governmental apparatus.

8. Soon after he took office, President Park established economic development as his primary goal. In his words:

"Economic resurgence is an integral part of a nationalistic vision of a more independent Korea to come - more independent of the United States' aid and control and, as an economically stronger and independent entity, more able to deal with North Korea."

Although the backing of the military gave Park a great deal of power, he quickly realized that the development effort required strong government management and set about the task of developing an effective planning machinery and a bureaucracy capable of fashioning suitable policies and implementing them. The Park regime actively promoted private enterprise as the engine of growth, and there grew up a close relationship between government and business, but with the Government always maintaining the upper hand. It provided not only general policy direction but also decided how policies were to be implemented, sometimes down to the firm level.



9. President Park's outward-looking development strategy combined with a dirigiste approach toward economic management was a great success. But the economic gains further encouraged government interventionism, stimulated the growth of the bureaucracy and greatly increased its responsibilities. By the time President Park was assassinated in 1979, the size of the bureaucracy and its involvement with the minutiae of decision making throughout the economy was interfering with a development process much too complex to be managed in such a fashion. Instead of serving as a communication channel between the people and the nation's leaders, the bureaucracy tended increasingly to isolate the latter.

10. The months following Park's death found the political parties too weak and divided to exploit the situation and replace the deceased President with a leader clearly enjoying the support of the majority of the population. Lacking an independent base of power and unpopular with the politically significant groups, the bureaucracy was equally unsuccessful in finding a candidate to replace Park. In fact, during the course of the few weeks which elapsed between the assassination and Chun Do Hwan's takeover, it became very clear that the military held virtually all the cards, that almost no power had been allowed to diffuse into the few institutions with a political role which had been permitted to exist and that Korea was devoid of interest groups with sufficient support to force the military to seek a political compromise, much less keep it at bay.

11. President Chun has proven himself to be as authoritarian as his predecessor. His actions with respect to political leaders, the activities of political parties, the freedom of the press, the independence of the courts, etc., give no hint of a desire to develop institutions which could mobilize, focus and articulate the sentiments of the people and eventually share in the responsibilities of Government. Nor has his Government attempted to promote the organization of interest groups which might have a political role to play. Instead, labor unions find their activities even more circumscribed than in the past. Businessmen, who as a group became extremely influential under Park, face some uncertainty as the regime worries over corruption, discusses measures for improving income distribution, talks of dismantling the cosy nexus of relations between the bureaucracy and the business community and threatens to end many of the subsidies which buoyed company profits during the Park years. Students, not so much an interest group as a safety valve for the frustrations of the community, are on a tighter leash. And notwithstanding token gestures such as the recent removal of the curfew, which suggest some relaxation of the controls exercised by the regime, the level of surveillance by the police and the intelligence agencies has if anything, risen. In short, the beginnings of a movement toward institutional pluralism and a multicentric distribution of power, which are normally thought of as the sources of political stability and the bases for an orderly transfer of power, cannot be detected.

12. But by retaining much of the power in his own hands and by preventing institutional developments which would broaden his political base, Chun is confronted with a problem familiar to all military leaders:

how can the regime be legitimized without setting in train certain institutional changes which could greatly increase the chances of an effective political opposition in the future? By emphasizing economic issues such as export-led growth and the control of inflation, Chun is doing what generations of authoritarian rulers have attempted, which is to win the political favor of the populace by promising improvements in material conditions. The experience of Chun's predecessor who maintained his position for 18 years, in part because of what he was able to achieve on the economic front, suggests that such a strategy can at times be successful. But the political disturbances which marred President Park's last year in office, a year during which the economy grew by 12% and prosperity was at a postwar peak, also point toward the risks from too much political repression.

13. Aware of these dangers and of the greatly reduced probability that Korea can ever hope to achieve the rates of economic expansion registered in the late 1960s and 1970s, Chung is concerned not just with economic development. His regime appears more responsive to the social needs of the people. Housing, education, health and other social amenities are high on the Government's list of priorities. By meeting these need the regime might ward off some of the frustrations which could precipitate a political upheaval.

14. In cutting back parts of the bureaucratic machinery and reshuffling personnel, Chun is responding to another set of grievances directed against the excessive regulation of both economic and social activities by government agencies as well as the corrupt practices of some powerful officials. The promise to minimize the State's interference in the workings of the economy and thereby enlarge the autonomy of businessmen, aside from the economic benefit it might provide, is also calculated to mollify those who have become weary of the Government's heavyhandedness.

15. President Chun seems to believe that through these measures he can avoid making any real political concessions. He may very well be right, especially since most Koreans remain convinced that firm leadership is essential to ward off the threat from North Korea. It nevertheless remains to be seen how credible the Government's promise of greater economic freedom will be if not balanced by a degree of political choice. Whatever political difficulties might arise from a reluctance to provide such choice lie in the future. For the time being, the Chun regime looks secure. It has the support of both the Japanese and the US Governments and the domestic scene is relatively quiet./1 Events now unforeseen could, of course, involve a

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/1 A major financial scandal which erupted after this section was written and allegedly involves relatives of the President's wife has dealt a severe blow to the credibility of the Administration's promise to root out official corruption. President Chun has dealt firmly with the situation, but it is too early to tell what impact it will have on the effectiveness of his Administration.

transfer of power. As things stand, the likelihood of any except another military regime taking over are remote, since the few major interest groups suffer from poor organization and lack the support of influential institutions.

### COUNTRY OBJECTIVES AND PERFORMANCE

#### Economic Development Through 1978: A Brief Overview

16. From the early 1960s through 1978, Korea's export led growth strategy was highly successful. GNP expanded over 9% p.a. allowing per capita income to more than triple in real terms. Exports rose by an annual average of 27%, again in real terms and by 1978 they constituted 34% of the GNP, almost \$13 billion. Trading opportunities arising from a healthy world economy, a favorable exchange rate, an extensive system of subsidies and an abundant supply of credit, encouraged investment in export-oriented light industries enabling the manufacturing sector to grow at 18% p.a. and accelerating the shift of the economy's resources away from agriculture into more productive use in industry. By the mid-1970s increased competition from other low cost producers, growing protectionism in the developed countries and security concerns induced the Government to promote the development of heavy industries. Progress was also made in improving the quality of items such as clothing, textiles, footwear, etc., and Korean exporters began making determined efforts to find new markets in the Middle East, Latin America and Africa, with most success in the first. By 1979, 11% of Korean exports were to the Middle East which was also the source of highly lucrative construction contracts for Korean construction companies (amounting to over \$32 billion during 1973-81 and currently employing 120,000 workers). Although it made some effort to improve the export prospects of traditional manufactures, the Government gave primary importance to the heavy and chemical industries, encouraging their growth through subsidized credit, and tax favors as well as through direct pressure on the major industrial corporations. These subsectors were seen as the basis for a new wave of technology intensive goods that would sustain exports and provide technological benefits for other segments of the industrial sector through linkages and subcontracting.

#### The Recessionary Years 1979-81

17. The economy reached a cyclical peak in 1978 with investment growing at 36% in real terms and GNP by 11.6%. But by the year's end structural problems created by the recent investment policies, an exchange rate that had rendered Korean exports uncompetitive, and a wage-price spiral triggered by the prolonged economic boom led the Government to introduce a far-reaching program of stabilization-cum-restructuring for 1979-81. The

general strategy was to follow tight monetary and fiscal policies while at the same time initiating basic structural changes aimed at giving greater play to market forces, further opening the economy to international competition, and providing direct assistance to the poor.

18. However, the program embodied in the Economic Management Plan 1979-81 was overwhelmed by a series of unexpected shocks arising from the sharp increases in oil prices and the assassination of President Park. The oil price increases in 1979 and 1980 raised Korea's petroleum import bill from about \$2.3 billion in 1978 to \$5.8 billion in 1980 with the price induced increase equal to nearly 6% of GNP during 1979 and 1980. President Park's assassination was followed by a period of the severest political uncertainty and social unrest in 20 years with the situation returning to normal only after the ascendancy of a new administration under President Chun Doo Hwan in September 1980. Although 1979/80 was a most difficult period for the Korean economy, the Government nevertheless succeeded in taking a number of major policy initiatives which gave substantial impetus to the adjustment process. In January 1980, the won was devalued and a flexible exchange rate policy was adopted; as a result, the won depreciated by a total of 26.7% in terms of US dollars during 1980, re-establishing export competitiveness. Since 1980, the Government has embarked on an educational campaign to promote wage restraint and real wages declined by 5% in 1980 and another 3% in 1981, facilitating the adjustment process. Another important measure was to adjust domestic energy prices. Increases in international petroleum prices were passed on rapidly to consumers, electricity prices were raised, and progress has been made in adjusting the price structure for petroleum products and domestically produced coal. In order to tackle the problems of overcapacity and duplication of investments in some heavy industries, the Government also developed a program for realignment and consolidation of heavy industries.

19. In spite of the adjustment measures, the lagged effect of the various adverse factors, combined with unusually bad weather (which resulted in a drop in agricultural output of 22%) led to a 6% fall in GNP during 1980. The year 1981 finally brought a recovery with GNP growing by 7%; however, the increase in nonagriculture GNP was only 4%. Between 1979 and 1981, per capita real income adjusted for terms of trade declined by about 10%. Balance-of-payments developments in 1979-81 were heavily influenced by the already mentioned sharp increases in oil prices, and the current account deficits in 1980 and 1981 were larger than in previous years. However, real export growth of 10% in 1980 and 17% in 1981 combined with domestic economic policies initiated since 1980 led to substantial adjustment with the current account deficit falling from 10% of GNP in 1980 to 7.5% in 1981.

Development Strategy

20. The Government's medium-term development strategy is embodied in the Fifth Five-Year Plan (1982-86). The principal aims of the strategy are to achieve price stability, ensure that the benefits of growth are equitably distributed, and to lay the foundations for renewed growth, while reducing the balance of payments deficit to \$3 billion by 1986. The rate of inflation, which has averaged 25% over the past two years, is to be reduced to single digit levels within the next 2-3 years. The growth target has been set at 7-8% per annum so as to contain any increase in unemployment, now about 4-5%, in the face of an expansion in the labor force averaging 2.8% (see Table 1 on Macro-Economic Indicators).

Table 1: PRINCIPAL MACRO-ECONOMIC INDICATORS

|                                       | Unit               | 1980  | 1986  | Average annual<br>rate of increase (%)<br>1982-86 |
|---------------------------------------|--------------------|-------|-------|---|
| <u>GNP</u>                            |                    |       |       |   |
| In 1980 Prices                        | Trillion Won       | 35.0  | 53.7  | 7.6   |
| In 1980 prices                        | US\$ Billion       | 57.4  | 90.0  | 7.6   |
| Population                            | Million<br>Persons | 38.1  | 41.8  | 1.6   |
| <u>Per Capita GNP</u>                 |                    |       |       |   |
| In 1980 Prices                        | Thousand Won       | 919   | 1,283 | 5.9   |
| In 1980 Prices                        | US\$               | 1,506 | 2,170 | 5.9   |
| Increase in GNP<br>Deflator           | %                  | 27.7  | 9.5   | 10.8  |
| Commodity Exports<br>(Current Prices) | US\$ Billion       | 17.2  | 53.0  | 11.4/a  |
| Commodity Imports<br>(Current Prices) | US\$ Billion       | 21.6  | 55.5  | 8.4/a   |
| Current Account<br>(Current Prices)   | US\$ Billion       | -5.3  | -3.6  | -   |

/a Rate of increase in real terms.

21. A viable external balance will require action in many areas. Korea remains committed to an outward looking development strategy and is aiming for an annual rate of expansion of exports of 10-12% per annum depending on the international outlook, but in any event substantially higher than the rate of growth of GNP. With an annual real growth in exports of this level, the debt service ratio could be maintained in the range of 12-13%. The domestic inflation rate will be brought below 10% principally by restricting the growth of the money supply during the Plan period to 18% p.a. The Government aims to improve productivity and raise the quality of tradeables produced by fostering more competition and will adjust the exchange rate as required with a view to maintaining international competitiveness. Selective credit support for exports of capital goods will also be employed.

22. The restoration of a manageable medium-term external balance requires a number of complementary steps to improve the internal balance of the economy. In particular, fiscal and monetary policies will have to aim at increasing domestic savings through noninflationary means, so that investment can continue at a high level, but with much less reliance on foreign inflows. To this end, the Government intends to follow a policy that will aim for positive real interest rates. A national savings ratio of 28-30% of GNP, supported by foreign capital inflows of 3-4% of GNP, will permit an investment ratio of 32-33%. The public sector's share of savings will need to increase to about 8% of GNP from its present level of 6% so as to raise the level of domestic savings. This will require additional resource mobilization efforts, as current expenditures grow; the government plans call for raising the tax/GNP ratio to 22% by 1986 compared with 18% in 1981. A reduction in subsidies particularly to agriculture will also play a role.

Table 2: RESOURCE REQUIREMENTS 1980-86  
(% of GNP at current prices)

|                  | 1980<br>(actual) | 1981<br>(est.) | 1982-86<br>(projections) | 1986<br>(projections) |
|------------------|------------------|----------------|--------------------------|-----------------------|
| Investment       | 31.0             | 31.9           | 32.3                     | 32.6                  |
| Domestic savings | 21.6             | 22.9           | 27.0                     | 29.6                  |
| Foreign savings  | 9.4              | 9.0            | 5.3                      | 3.3                   |

Source: EPB.

23. Another major task relates to industrial policy. Industrial restructuring will be pursued with the intention of improving efficiency and channelling a larger proportion of new investment into more technologically advanced industries. This shift is essential to the future development of the economy. It also reflects the fact that the industries which were the basis for the successful export growth of earlier years face stiffer competition in world markets. Continued economic growth must be achieved through a deepening of the industrial structure and improvements in productivity. The first steps in the further evolution of industry involved an emphasis on machinery and electronics. However, investment in these industries took place at a faster pace than envisaged and there is a need to rationalize the situation and reduce excess capacity.

24. The government will work towards more devolution of investment decision making to individual businesses, retaining only its right to influence large-scale strategic industrial projects. It will review the incentive system, promote more competitive conditions, apply import liberalization to domestically produced products and implement the decisions to reduce the use of directed credit and allow more autonomy to financial institutions.

25. Energy is another area in which new policies will be pursued in the course of the Fifth Plan. Energy intensity of output in Korea is high compared to other countries at a similar level of development. Also the dependence on imported energy, chiefly oil, is not only high but has grown rapidly over the past two decades. In 1980, energy imports were close to two thirds of energy consumption and oil imports had risen to 27% of total imports. With limited hydroelectric potential, no known resources of petroleum and domestic coal of poor quality, Korea has inevitably to rely on energy imports for its economic development. But with the prospect of a persistent world-wide shortage of energy resources, especially oil, and rising relative prices over the next decade, it has become imperative for Korea (a) to reduce the energy intensity of output; (b) to contain the growing dependence on energy imports; and (c) to diversify the sources of energy imports. A detailed national energy plan has not yet been formulated but it is the Government's intention to limit the growth in energy consumption to less than 7% per year during 1982-86 compared with a GNP growth of 7-8% per annum; the elasticity of energy use to GNP will thus be around 0.9 compared to 1.1 during 1974-80. While there is little possibility of reducing the relative dependence on energy imports to less than the present level before 1990, it is planned to cut back the rate of growth of oil imports for energy use to 3% p.a. over the next decade (compared to over 10% p.a. during 1970-79).

26. A start towards meeting the energy objectives has been made with a variety of measures, the most basic decision being to pass on to consumers the successive increases in world oil prices, a policy which began in 1979. Security of supplies, diversification of energy forms and sources, and the institution of an active program of demand management have become major objectives. The use of oil has been eliminated from all planned electric power plants, an Energy Research Institute established, and a Rational Energy use law mandating a broad program for increasing efficiency in energy use, enacted. In addition energy use surveys have been conducted so as to bring into existence the necessary data base and technical assistance and special credits are being provided for conservation and energy-saving activities. These actions have started to slow the growth of energy use and an upward revision of the prices of coal and diesel fuel, which is being carried out in stages for the near future, should further reduce the energy intensity of the economy.

27. The Fifth Plan also places considerable emphasis on the provision of social services. Some of the improvements in the well being of citizens will come through expanded employment and price stability but the Government also intends investing heavily in educational facilities, water supply and sanitation. Greater access to higher education should promote social mobility and equity in income distribution aside from easing the shortage of technical manpower. In order to increase the supply of dwellings, sites will be developed and the financing available for the purchase of houses to poor urban families will be increased. Furthermore, an effort will be made to create a broader system of mortgage lending by introducing suitable instruments and building up primary as well as secondary markets for mortgages. It is hoped that these measures will improve welfare and, by lessening the pressure for higher wages, help raise Korea's export competitiveness. A third area to be given special attention is the control of urban pollution which has been increasing steadily over the past decade. Rounding off the social sector package are two proposals. One calls for increasing the coverage of the medical insurance programs from 36% currently to 66% by 1986 and the second may lead to the introduction of a national old age pension scheme within the next five years.

#### Review of the Fifth Plan

28. It is apparent from the Fifth Plan and our own discussions that the Government is disposed to move quickly on several fronts so that the change in the tempo of economic activity enunciated in the Plan is put into



effect along with the more detached style of economic management. We are in broad agreement with the initiatives that have been proposed in the Fifth Plan and have contributed to the shaping of a number of the policies. However, some of the macroeconomic projections contained in the Plan document may be somewhat optimistic. We are less sanguine that the Koreans will be able to meet their export targets given the slow anticipated growth of the world economy, problems in expanding production capacity in sectors such as machinery and finding resources domestically to finance such investment. It is also possible that international interest rates might be higher than forecast by the Plan, forcing the country to shoulder a heavier debt service burden. The Government is fully aware of these possibilities and intends to update the Plan each year as the situation unfolds. Among its policy objectives, the Government appears to be giving primacy to price stability and seems prepared to trade off some investment and growth in order to achieve this.<sup>/1</sup> However, it would be important to minimize the need for such trade off in order to keep unemployment from rising to unacceptable levels and to facilitate both the planned structural changes in industry and the desired improvement in social equality in a number of key areas and be prepared to introduce changes if actions that are now planned do not appear to be producing the desired results. The areas we have identified are: (a) exports, (b) investment, (c) finance, (d) domestic resource mobilization, (e) energy, and (f) agriculture.

29. Export Prospects. The Plan projections for exports do not appear unreasonable in terms of Korea's past performance, and in comparison with the recent export performance of other export-oriented East Asian countries; however, the near-term prospects are less favorable than assumed in the Plan and consequently the realization of export projections for the Plan period as a whole would depend on Korea's following the Plan policies to improve its export competitiveness and on the growth of world trade as visualized in the Plan. Moreover, there is some uncertainty about the projected commodity composition of exports and some of the individual targets are unlikely to be

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<sup>/1</sup> Recent revisions of the Korean projections for 1982 assume that the rate of inflation is declining faster and the balance of payments situation is improving by more than both the Korean authorities and we had assumed earlier this year when the projections of the CPP were finalized. On the basis of these new projections the Government has now begun to give greater attention to restoring the growth momentum, through measures mainly in the financial field (see para. 33 below).

met without further policy measures. More specifically, export prospects of general machinery and automobiles are not as good as projected and the prospects of light industry exports are better than projected; consequently the share of light industry exports may not decline as fast as envisaged in the Plan. The achievement of the target for electronics will depend to a large degree on the successful implementation of the program to liberalize technology imports and attract foreign direct investment.

#### Investment

30. With the Government committed to a diminution of its role as regards resource allocation in the manufacturing sector, the size and composition of the investment by industry is difficult to predict, doubly so when export uncertainties and the probable effects of monetary restraint are factored in. Investment in equipment fell in real terms by 22% in 1980 and 6% in 1981. Little or no increase is expected during 1982 with firms earmarking most of the funds committed to replacement and rationalization. Now that the Third Petrochemical complex has been postponed indefinitely, the most important remaining private sector projects are the expansion of shipbuilding capacity by 50% from 4 million to 6 million tons and the construction of a new plant to boost automobile production capacity. The recent spate of orders for ships and Korea's strong position in the market for tankers, bulk carriers and other vessels suggests that shipbuilding investment might have a significant pay-off. The wisdom of the automobile project is more questionable due to the small home market and the difficulties Korean manufacturers will face in expanding their share of the foreign market, although it might prove justifiable in order to promote the development of an export-oriented components industry. For the country to meet its export targets, the expansion and technological upgrading of industries such as machinery, electronics, footwear and clothing will be urgently needed and the Government through its macro policies will have to make certain that an environment conducive to such investment, exists.

31. Although the public sector investment program is better defined, the Korean planners intend to maintain flexibility with regard to its implementation. As discussed in para. 28 above, the significant downside risks with regard to growth and balance of payments suggest that treating the Fifth Plan as a rolling plan to be adjusted as the situation unfolds is the appropriate strategy. However, if the idea of a rolling plan is to be implemented effectively, much more careful contingency planning is necessary than seems to have been done so far. In particular, it is necessary to identify a set of postponable projects and prepare alternative scenarios for initiating these projects under alternative assumptions about resource availability. The investments that should be reexamined include the expansion of petroleum refining capacity, the doubling of the Honam railway lines, the widening of the Seoul-Busan expressway, investment in education facilities and the nuclear power program.

Financial Reform

32. To an extent the success of investment policies and of efforts to generate more resources will depend upon the effectiveness of changes underway in the financial sector. The Government has taken the first steps towards increasing the operating autonomy of the commercial banks, by selling its shares in the Hanil Bank and allowing all five institutions freedom in managing personnel and budgetary matters. Plans are also well-advanced for selling to the public the Government's shares in the other banks. We have also been informed by the MOF, that considerable discretion is now being allowed in making loans and that no longer does the Ministry go into the details of who receives loans but is content to issue broad guidelines. With the creation of a relatively free commercial paper market some easing of interest rate restrictions is also evident. However, the Government is keenly aware that liberalization will need to be implemented gradually, not the least because the banking system has grown accustomed to government direction. The commercial banks lack the skills required for a proper vetting of loan applications and their management still has to be weaned away from the system of administered lending with its limited responsibilities. In addition, the precarious capital structure of many business firms is likely to inhibit the movement towards a market based system of interest rates and open competition between firms for financial resources. The measures for liberalizing the financial sector that are being developed are broadly in line with some of the recommendations of our Financial Sector analysis conducted in 1979-80 (and which were basically supportive of Government statements of intention at that time). But the phasing of these reforms will be very crucial to their success.

33. With the economy struggling to escape from stagflation and many firms in serious financial straits a major shift in financial policies could have undesirable repercussions. Korean companies have traditionally relied on the banks for their resources and as a result their capital structure is highly leveraged. Hence, a relaxation of controls over interest rates, which is likely to be the center piece of the liberalization program, must be carefully managed. A sudden withdrawal of controls over the rate of structure could mean steeply rising interest costs for Korean enterprises not only on new borrowings but also on existing debt as a consequence of the variable rate regime prevailing in the country. The approach adopted takes the form of a compromise. As stated above, restrictions on commercial paper and corporate bond rates have been eased allowing them to respond to market pressures, while at the same time bank lending rates have been lowered, primarily to reduce the debt servicing burden of firms. The latter step, whose main purpose is to support recent Government efforts to stimulate the economy, has created a divergence between domestic and international rates, and may have led to some widening of the spread in the local rate structure. With the progress of reform closely interlinked with interest rate issues, the tension between financial sector objectives and macroeconomic concerns must be resolved. This will be a critical area in our dialogue on financial changes but the specifics and time phasing of (a) improvements in the capital structure of business firms so as to increase the proportion of equity and (b) a further strengthening of capital market institutions allowing companies to tap funds from new sources, are also of importance.

### Resource Mobilization

34. Aside from its size the investment budget differs from past experience in that all but 9% is financed from domestic sources. This calls for an upward shift in the savings propensity of the private sector and greater effort at mobilizing resources on the part of the State. On both counts there remains some uncertainty. With per capita incomes growing more slowly than in the past, other incentives will be required to induce higher private savings and although financial innovations are being given much attention, their precise nature and their probable effects on savings remain unknown. On the Government's side, there is the intention to increase tax revenues by approximately 4% of GNP by 1986, which should permit a 2-3% rise in public savings if expenditure policies remain conservative. While a greater tax effort seems highly desirable particularly in view of the anticipated expenditures on the social sector, the political acceptability and economic consequences of new tax measures during a period of relatively slow growth will have to be carefully weighed. The strain on budgetary resources could be lessened through appropriate public sector pricing policies in particular for the power company and the transport sector.

### Energy

35. Working at their customary speed, the Koreans are already well advanced with their program of diversifying the sources of energy. Although only a single nuclear power plant is in operation, nine others are in varying stages of implementation, and an LNG project is under way. In our view, the advantages of reducing the country's heavy reliance on oil are unquestionable. However, the extent to which nuclear energy or LNG is substituted for oil and the pace at which alternative energy sources are built up should perhaps be approached more conservatively. The high capital cost of nuclear power facilities, and the problems of safety and waste disposal which will follow in the wake of a major nuclear program should receive more consideration than they have thus far. With the economy expected to grow more slowly than in the past, the expansion of electricity generating capacity can be reined in somewhat, thereby saving scarce domestic investible resources.

36. Unlike the process of diversification, efforts at conserving energy in dwellings and factories are still at a very early stage, with firms and households showing a reluctance towards investing in energy saving measures during a period of recession even though subsidized credit is available for this purpose. But the Government, at the urging of the Bank, is moving to correct the distortions in the structure of fuel costs by raising the prices of diesel fuel and coal so as to bring them in line with international prices. These adjustments will undoubtedly add to the attractiveness of conservation. The Government is also considering the development of a program to mechanize coal mining, which could greatly add to its productivity, and is planning to raise the tempo of oil exploration efforts.

### Agriculture

37. The program for agriculture is taking shape very gradually, because economic considerations have to be balanced against those arising

from domestic politics (the farm sector being quite vocal) and the exigencies of national security. When Korea passed the threshold of self-sufficiency in rice and barley in 1976, the need to secure the country's food supplies began to be tinged with a greater concern for the high cost of locally produced grain and the budgetary stresses generated by price supports for grain and subsidies for agricultural inputs. Some influential elements within the Government also began to argue in favor of quickening the transfer of labor from the rural sector to industry where labor shortages were becoming evident, and achieving parity between rural and urban incomes not through price supports but through a reduction in agricultural manpower coupled with an increase in productivity. This view has gathered strength and is reflected in the recent decision gradually to eliminate the operating deficits of the Grain Management and Fertilizer Funds.

38. Although they represent a move in the right direction, the above policies need to be carefully analyzed so as to ensure their consistency with other objectives. For example, with economic growth expected to be lower than in the past and capital in short supply, both the mechanization of farming and the changes in grain support prices might have to proceed at a more measured pace in order to preserve job opportunities in the rural sector and slow migration, which would only swell the ranks of the unemployed in the cities. In sum, while in principle we remain in favor of lowering farm prices, the issues are sufficiently complex and important that careful studies, which the Government has agreed to conduct under SAL I, are needed.

#### EXTERNAL CAPITAL REQUIREMENTS

39. Korea has used external finance very extensively and effectively. To offset decreasing aid flows and to provide foreign finance to domestic firms with insufficient credit standing in international markets, the Government directed domestic banks in the early 1960s to guarantee foreign loans obtained by Korean firms. As a result, foreign private capital inflows increased rapidly and loan guarantees soon reached the same level as credit extended by the domestic banking sector. Also, as the country's export drive gathered momentum, exporters gained substantial access to short-term trade credit. Thus, over time foreign banks became acquainted with a wide range of Korean firms and in the process these firms gained in credit standing.

40. During the 1970s, private capital provided the bulk of Korea's external financing requirements, divided about equally between long-term and short-term capital flows, while capital flows from official sources declined relative to both total financing requirements and GNP. The strong credit

standing which Korea had developed during the 1970s weakened at the end of the decade, as the uncertain political situation raised doubts as to the Government's ability to deal with emerging economic difficulties. During 1980 the Government encountered resistance from foreign bankers to providing loans in the amounts they wished, and borrowing charges were high relative to what other major East Asian countries were paying. While Korea's credit standing improved in 1981, the combined result of a widening current account deficit, the increasing share of variable rate loans in Korea's debt portfolio, and appreciably higher interest rates in international capital markets caused Korea's interest payments to rise sharply - from \$1.4 billion in 1979 to \$2.5 billion in 1980 and \$3.5 billion in 1981. As during the period immediately following the first oil crisis, the share of short-term debt rose, from 33% of total debt outstanding in 1978 to 43%, or the equivalent of 4 months of imports, in 1980, as domestic firms made extensive use of short-term finance to cover higher energy costs and operating losses. With continuing balance of payments adjustments and improved profitability, short-term debts are likely to fall again to 2-3 months of imports equivalent.

41. While some reduction in international interest rates from the current high levels is expected during the period of the Fifth Five-Year Plan, most of Korea's private capital inflows are expected to be more costly than in the 1970's. Also these higher interest rates will be associated with foreign borrowing requirements that will remain very large. Even the Fifth Five-Year Plan's goal to reduce the current account deficit from 10% of GNP in 1980 to 3% by 1986 will require gross capital inflows of around \$9 billion per year. On a net basis, Korea will require capital inflows of about \$5 billion per year, including a \$1 billion addition to official reserves. About \$3.5 billion would need to be in the form of medium and long-term loans, with the balance, or \$2.5 billion, coming from short-term capital and direct foreign investment. Among the considerations taken into account in arriving at the projected share of MLT borrowing is the fact that Korea's short-term borrowing has risen rapidly in the past few years. The amount of short-term borrowing, however, has reached the point where it would be prudent to begin reducing its share of outstanding debt. As far as direct foreign investment is concerned, it is expected that the recent easing of restrictions, principally by allowing foreigners full ownership of their operations in Korea, will result in a substantial step-up, but current levels are so low that it would take a truly dramatic increase for foreign direct investment to have a significant impact on the balance-of-payments.

42. Korea's MLT debt service ratio in 1981 was about 13%. If one adds to this the interest payments on short-term debt, the total debt service ratio reaches close to 20%. Given the openness of its economy and heavy dependence on foreign trade (exports alone account for one-third of GNP, and are projected to rise significantly faster than GNP in the coming years), it is important for Korea to keep its debt service burden relatively lower than other countries less vulnerable to external shocks. In these circumstances

and in light of the large amounts of borrowing required during the Fifth Plan Period, Korea should continue to try to maximize the share from official long-term lenders. Given, however, the size of the overall requirements coupled with the resource constraints of official lenders and the virtual cessation of Korea's eligibility for highly concessional bilateral aid, the share of official lenders inevitably will drop from previous levels. If we assume that Korea is successful in obtaining \$1 billion from official sources out of the total of \$5 billion net inflow required annually, this would translate into a commitment level from all official sources of about \$9 billion for the five-year period 1982-86. (On this basis, the share of official lenders in external financing requirements would drop from about 25% in 1975-80 to about 20% during 1981-86, see Table 3 below.) About one-half of this would come from bilateral sources, mostly in the form of official export credits. The balance would come from the Bank and ADB. The Korean Government has recently requested an aid package from the Japanese Government, totalling \$6 billion for the period 1982-86. The package is currently under negotiation, but probably only a small share of this would be at highly concessional terms, so that the Japanese assistance is not likely to affect significantly the debt service projections. Nevertheless, a substantial increase in the share of bilateral loan commitments in total borrowings would be highly desirable, to reduce the uncertainty associated with variable interest rate debt.

Table 3: EXTERNAL DEBT INDICATORS

|                             | Actual |      | Projections |
|-----------------------------|--------|------|-------------|
|                             | 1978   | 1980 | 1985        |
| <u>Percent of Exports</u>   |        |      |             |
| <u>Debt Service</u>         |        |      |             |
| MLT debt service ratio      | 12.0   | 13.1 | 12.1        |
| Interest on short-term debt | 1.2    | 5.3  | 3.3         |
| <u>Debt Outstanding</u>     |        |      |             |
| MLT debt                    | 66     | 73   | 66          |
| Short-term debt             | 26     | 48   | 34          |
| <u>Percent of GNP</u>       |        |      |             |
| MLT debt                    | 24     | 29   | 30          |
| Short-term debt             | 9      | 19   | 15          |
| Variable interest rate debt | 13     | 30   | 30          |

PROGRESS TOWARD PREVIOUS CPP GOALS

43. The last CPP, dated October 1978, was prepared during the period when Korea was enjoying rapid economic growth and the resiliency of the economy had been demonstrated by rapid recovery from the 1972-74 oil shock. The vision of the policymakers and the industrious skills of the private sector were being widely extolled. A primary objective of the lending strategy was to help deepen and diversify the industrial structure. Loans planned for development finance companies, education and technology development were to be in support of this objective. Other objectives included support for investments designed to raise incomes and productivity for the rural sector, to support urban development, particularly outside Seoul and Busan, through loans for water supply and regional development. A loan for population was planned. Institutional improvements and investment in roads, rail transport and ports and in electric power were to be supported. A move towards sector lending was to be launched with loans in education and the financial sector, and subsector lending was to be started in highways and continued in railways.

44. Looking back at FY79 and the first three years of the Five-Year period covered by the CPP, it is notable that in spite of the sharp downturn in the economy that had not been foreseen in 1978, progress was in major respects consistent with the lines set out. In sum, while less lending was made for agriculture and transport, this shortfall was made up by increased lending for industry and urban/regional development. The plan to place lending for financial/industrial activities on a sector basis made substantial progress in FY81 and is now expected to come fully to fruition in FY83. A first sector loan for education was made, and time slice lending proceeded for railroads. A more coordinated intermodal lending program in the transport sector still lies in the future. A significant deviation from the program planned in the 1978 CPP was the advent of lending for structural adjustment which was initiated in FY82 to assist the Korean economy to adjust to changed international circumstances. For fuller discussion and evaluation of the prior CPP goals and the progress made toward their fulfillment, see Attachment 4.

PROJECT IMPLEMENTATION PROFILEDisbursement Performance

45. As of June 30, 1981, Korea had under implementation 28 loans for a total of US\$2.1 billion. Agriculture, transportation and IDF are the major sectors accounting for 23%, 25% and 26% of total commitments respectively.



The ratio of total disbursements to total net commitments (of projects under implementation) for AEA is 32% compared to 40% for Korea, which is the highest among the major countries in the region, indicating that project implementation moves faster in Korea relative to the region as a whole. A comparison of the disbursement profiles for Korea and the region shows that on average 55% of the loans were disbursed in the first three years and 84% in the first five years in Korea while the comparable average for the region was 40% and 75% respectively.

46. IDF projects, which account for a major portion of Bank lending in Korea, are generally fast disbursing. For example, disbursement profiles show that 75% of IDF loans in Korea were disbursed in the first three years of implementation. When IDF projects were excluded, the disbursement-commitment ratio in Korea on June 30, 1981 remained at 40% still comparing favorably to the regional average of 32%. Therefore, the major role played by IDF projects in Korea does not significantly affect overall implementation performance, projects in other sectors showing relatively better performance compared to the regional averages.

47. Korea's generally good implementation performance, however, masks the fact that there was a significant drop in FY81, with the disbursement-commitment ratio dropping from 48% (in FY80) to 40%. Up to FY80, actual disbursements in Korea were over 90% of appraisal estimates comparing favorably to the regional average of 72-80%. However, in FY81, Korea disbursed only 75% of appraisal estimates which was below the regional average of 77%.

#### Project Performance, Types of Problems and Actions Taken

48. A review during FY82 of project performance ratings given by the most recent supervision missions confirm that implementation in Korea is smooth relative to the rest of the region. Supervision summaries were available for 25 of the 28 ongoing projects in Korea. Of these, 11 projects (44%) were reported as problem-free or having minor problems, 12 (48%) as having moderate problems and two (8%) as having major problems. The ratio of problem-free or minor problem projects is higher than the regional average (36%) reflecting Korea's good performance.

49. The implementation problems faced in Korea are predominantly financial and arise from the lack of provision of adequate counterpart funds. Financial problems were reported for 16 of the 25 projects and accounted for 59% of the problems. On the other hand, relatively few projects reported having technical or managerial problems which are fairly common in other countries in the region. Only five projects have managerial problems, while two of these also face technical problems. Managerial and technical problems together accounted for 26% of all problems compared to 58% for the region as a whole, reflecting Korea's well developed local engineering and technical capabilities and generally efficient organizations.

50. Agriculture, transportation, industry and population projects account for most of the projects with moderate or major problems. On the other hand, IDF and education projects face very few problems. The two industry projects are faced with not only financial problems but also with managerial problems. This probably reflects the fact that these projects have ventured into new frontiers and therefore more difficult to implement compared to more standard projects.

51. The lack of counterpart funds is due to the tight budget situation since 1980. The slow down in the economy in 1979/80 led to a drop in the growth of Government revenues which together with the emphasis on controlling inflation resulted in tightening of the Government budget. The Central Government budget increased 28% in nominal terms in 1980 and 21% in 1981 which is low compared to past growth. However, the real growth in 1980 was zero and was close to zero in 1981.

52. In the case of irrigation projects where the problem of counterpart funds had emerged already before the budget tightening in 1980, the Bank agreed to increase the disbursement percentages for civil works as a temporary measure to deal with the budgetary shortfall and expedite implementation. By late 1980, however, it became apparent that the budgetary stringency was affecting a variety of Bank projects and that the matter could no longer be dealt with satisfactorily at the project level. Consequently in January/February 1981, the Projects Department carried out a Country Implementation Review focussing on the financing issue. As a result of this review and Bank discussions with the Government over several months, substantial additional budgetary funds were appropriated for a number of Bank projects during 1981. The budget for 1982 provides for increased allocations to Bank-financed projects. Nevertheless, until there is clear evidence that the present budget constraints are overcome, an across-the-board approach to this issue of adequate counterpart financing is needed in addition to the normal supervision efforts of individual project officers. For this purpose, a joint project implementation review with the Government was held in late April 1982. At the same time the broader underlying problem of domestic resource mobilization is one of the main issues being addressed under our structural adjustment lending.

#### BANK LENDING STRATEGY

53. Korea has reached the stage of development and its institutions have achieved the degree of maturity that, if the Bank is to continue to make a substantial contribution to the country's development, the focus of its activities should be increasingly on providing advice and assistance in the resolution of macro-economic and sectoral policy and institutional issues. Resource transfer cannot be a major objective given Bank resource

constraints and Korea's growing external capital requirements; and the day has passed, in many sectors at least, when the Bank needs to concentrate on the details of project preparation and implementation. The approach thus will be to give primary emphasis to (i) structural adjustment lending and (ii) accelerating the move begun at the time of the last CPP towards focusing our lending at the sector and subsector level on policy and broad institutional issues.

#### Size of Lending Program

54. While resource transfer is not a major objective, the question remains as to the appropriate size of our lending program. The Government expects gross foreign borrowings to average about \$9 billion per annum during 1982-86. The Minister of Finance at the 1981 Annual Meeting asked that the Bank contribution be at a level of \$800 million per annum (total of \$4 billion for FY82-86), or 8% of the minimum total requirements. We believe this figure is too high given expected Bank resource constraints. Also we know that the Korean Government attaches considerable value to the Bank's nonfinancial role and continues to believe that our "seal of approval" is important to its international credit standing. Nevertheless, if we are unable to come close to what the Government is requesting, our lending would be in danger of becoming so marginal to Korea's resource requirements as to jeopardize our ability to attain our major nonfinancial objectives. If graduation were in prospect, accepting such a result would be merely bowing to the inevitable, but graduation should not be an issue in this CPP. Per capita income in 1980 was \$1,500. Our preliminary projections are that it will reach \$2,000 (1980 prices) by 1985 and about \$2,200 by 1987 (the end of the period covered by the CPP). This would still be well below the level at which, under current policy, Korea's candidacy for graduation should be considered.

55. In order to assure appropriate responsiveness to our nonfinancial objectives, some of which touch on very complex, politically sensitive issues, it is proposed to increase the level of lending for the FY83-87 period, however slight this may have to be. The approved lending total for Korea for FY81-85 was \$3.0 billion, and during the most recent Bank-wide review, was increased to \$3.15 billion for FY82-86. This would just about maintain the real level of lending (using IBRD inflation projections). A program of \$3.25 billion or US\$650 million per annum, is recommended for FY83-87. In terms of contribution to net capital inflow requirements, the proposed Bank program would amount to about \$275 million p.a., or 5% of the total.

Lending Objectives and Sectoral Composition of Program

56. Turning to our lending objectives and the proposed composition of our program, a number of issues arise. The first is the role of SAL lending. SAL I, approved by the Executive Directors on December 17, 1981, has served as the focal point for our policy dialogue with the Government over the past year and a half. In the process of preparing and negotiating this loan, all of which was done in close coordination with the IMF (including participation of an IMF staff member in the appraisal mission), we reached agreement with the Government on medium-term objectives in key policy areas, on specific actions to be taken over the next year, and on the conduct of a series of studies to be used as the basis for developing future action programs. The whole dialogue has been conducted on the understanding that the necessary adjustment would take time to work out and that the Bank would support the Government through a series of SAL's during this period. The negotiations at times have been quite difficult but the Government has recently reiterated its interest in SAL lending, which it values not only as supportive of major policy directions but also because of the boost they believe it gives to their efforts to raise funds from external capital markets on reasonable terms.

57. We propose to continue SAL lending in accordance with the program sketched out at the time it was introduced into the lending program, i.e., two additional loans (each in the same amount as SAL I) spaced about 18 months apart. The programmatic approach which this type of lending envisages has enabled us directly to relate our lending to key structural issues in the economy and in the process to deepen and intensify our dialogue on these issues in a way which is not possible either in our general economic work or in our normal lending activities.

58. As discussed in the section above on country objectives, attainment of the Government's medium-term balance of payments and growth objectives will require particular emphasis on improving the efficiency of industrial investment and improving the efficiency of energy use. Furthermore, in order that export promotion and import saving can be achieved without accentuating inflationary pressures, it will be necessary to strengthen domestic resource mobilization efforts. SAL I deals with each of these areas. In the industrial component, we are supporting the Government's program for restructuring subsectors where excessive investment has already occurred, are assisting efforts to reform the incentive system in a way which will allow a greater role for the market mechanism, and, for those investments where government involvement remains appropriate, are helping strengthen project evaluation procedures. The industrial issues we are dealing with in SAL I are complementary to those we are addressing in our financial sector lending. The SAL and financial sector lending together will give the Bank a role in some of the most important policy decisions facing the Government. In fact the Government's whole plan to reduce its intervention in the economy will be played out almost entirely in the industrial and financial spheres. By working with the Government on the re-examination and reshaping of the incentive system for industrial

investment - through the task force set up for this purpose under SAL I - and through our dialogue on the system of directed credit, decontrol of the commercial banks and interest rate policy under our financial sector lending, we will be helping the Government decide on the scope and pace of the intended liberalization.

59. In energy, we are supporting improvements in energy pricing (particularly coal and diesel fuel), strengthening of programs for energy conservation, and deferral of certain energy-intensive investments. The integrated approach being followed in the SAL is helping keep in focus the close relationship between policy decisions in the energy sector and overall balance-of-payments management. It is also helping to lay the foundation for lending operations in the sector (see below). The SAL approach is particularly suited to the broad, highly sensitive area of domestic resource mobilization. The issue of public savings in particular will continue to require close attention, as the Government moves ahead with plans for a large expansion in expenditures for the social sectors. In SAL I we are focusing on support of Government efforts (i) gradually to raise the tax/GNP ratio, from 18% in 1981 to 22% by 1986 and (ii) to eliminate the operating losses of the Grain Management and Fertilizer Funds, also by 1986. Having stressed the advantages of the SAL approach, it is also important to point out that our experience with SAL I has taught us (a) the importance of more detailed, intensive analytical work than we are used to, in order to translate general economic recommendations into specific action programs; and (b) the need for substantial lead time to allow the Government to develop an internal consensus on the specific measures to be taken.

60. As the action programs being supported under SAL I represent the first phase of a medium-term program, for SAL's II and III we intend to give priority attention to the subsequent phases of these action programs. However, we also intend to extend the coverage of issues, on a selective basis. For SAL II, in energy, we plan to include the issues of the pricing of electric power and the scope and pace of electrical power investment, particularly the nuclear power program. In industry we intend to assess the issues related to the restructuring of the petrochemical industry, particularly the fertilizer industry. On domestic resource mobilization, we expect to review central government subsidies, with a view to identifying one or two additional areas where significant savings can be achieved through subsidy reduction. There is one additional area, not directly related to the sectors covered under SAL I, which we intend to review under SAL II. Given the importance of efficiency in resource utilization, we intend to focus our support for improved project evaluation processes and procedures on the transport sector. The object of our support for improved project evaluation capacity under SAL I has been to help avoid misplaced Governmental support for investments in the industrial sector. However, our review of the Government's investment program for 1982-86 indicates that the transport sector harbors a substantial share of the investment proposals that appear to warrant close scrutiny, and a recent transport sector mission has identified investment planning as an area requiring particular strengthening in the sector. Such strengthening will also provide essential

support for the proposed move to multi-modal projects in our transport lending (see para. 75 below).

61. Turning to the balance of our lending program, as stated in para. 53 above, we intend to accelerate the move to policy-oriented lending. This will mean an increase in sector loans, but specific judgments on the types of loans to be employed will be based on a sector by sector assessment of the issues that need to be addressed and the state of institutional development. The capacity of institutions and our knowledge of policy issues varies considerably across sectors; moreover, there remains complex issues (e.g., transport coordination - see para. 77 below) probably best addressed in the context of specific projects. Also, our experience with policy lending in Korea is very recent and the Government is just beginning to appreciate what is involved. While the Government has recently reaffirmed its interest in this type of lending, some Government officials have reportedly expressed concern at the increasing degree of "conditionality" in Bank lending. Also as the process of decision-making requires achievement of a broad consensus of opinion, policy changes often require extensive and time consuming consultations within the Government. Again it comes down to not moving at inordinate speed towards policy-oriented lending and to being highly selective in the issues we choose to concentrate on.

62. In education, the Koreans are already implementing the first (1980) sector loan. This loan is designed to assist Korea's move towards the development of more skill intensive industries through upgrading three aspects of higher education, i.e., engineering education, management education and technician training. The main policy understandings to be implemented were establishment of systematic manpower monitoring, adoption of a more decentralized and flexible system for student enrollment, introduction of accreditation to set and maintain quality standards, adoption of adequate incentives to improve the supply and quality of teaching staff, and improved financing of private institutions. Implementation of policy understandings is proceeding well. Manpower monitoring and accreditation systems have been established and are fully functional. Decisions on assignment of students to degree programs have been delegated from the central Government to individual colleges and universities. Salary scales for university faculty have been improved and opportunities for in-service and advanced training of faculty have increased. Finally, a Government decision to allow private institutions to increase tuitions has substantially improved their financial situation. The Bank's views on policy issues for the most part continue to be very well received; and the positive environment in which our dialogue is being conducted gains increased importance by the Government's emphasis on the social sectors in the new Plan. The next sector loan will build on the achievements of the ongoing loan and broaden the scope to encompass both the science and engineering fields. The objective will be to improve the quality of (1) science education at the secondary and university levels and (2) graduate education in science and engineering. A key policy goal will be to ensure that qualitative improvements are made selectively and implemented gradually in order to avoid inordinate increases in recurrent costs. One important way in which this is

to be achieved is through increased specialization among institutions for advanced training. Also, the loan will be designed in a way to foster more efficient utilization of existing facilities for training in both academic institutions and research institutes. The dialogue in connection with this loan will include a review of the size and appropriateness of the overall program of Government education expenditures. Given the crucial importance of highly qualified manpower to the development of the skill-intensive industries, a follow-on sector loan is planned for FY87.

63. In the financial sector, our 1980 loans to KDB and KLB focused to a substantial extent on financial policy issues. The principal policy commitment, to move to positive real rates of interest, was achieved in 1981 and is being maintained. CNB, which serves small-scale industry, is still new at term lending and we are giving further attention to institution-building in the second CNB loan which has just been approved. From now on, we see no reason not to go fully and exclusively to sector lending for the industrial DFCs, which would enable us to concentrate on supporting the planned liberalization of the financial sector, with the initial focus being on the issues discussed in para. 33 above. We would thus propose financial sector loans about every two years (FY83, 85 and 87). The first of these loans would be provided through a central channel to the three most important DFCs: KDB, KLB and the Small and Medium Industry Bank (SMIB). To carry forward this program, however, requires a substantial input of manpower to assure that the necessary deepening of our understandings of a complex sector and the appropriate analytical basis for policy understanding are reached. The ESW program thus includes special studies of financial sector issues in addition to the input that would normally be done as part of sector loan preparation and implementation. To the extent feasible, Korean personnel and institutions are being employed in this work. (A Korean university has been contracted to gather and analyze data for these studies).

64. In the balance of our proposed lending for industry, we do not envisage the financing of major new industrial ventures. The focus would be rather on aiding in establishment of new service institutions for private industry, especially the more skill-intensive industrial enterprises which the Government is counting on to provide the main impetus to export growth in the 1980s. Proposed loans in support of this objective are for the small and medium machineries industry which will help establish an agency (KOPTEC) to provide plant level assistance in adopting improved production practices, and for KTDC, a financial institution designed to promote RD&E capability in local industry. (A first loan to KTDC was approved in March 1982). After the proposed FY83 small and medium machinery loan, we expect that further assistance that may be needed for KOPTEC can be folded into future financial sector loans. KTDC, however, by the inherently risky nature of the projects it will support is expected to take 5-7 years to become financially viable. For this reason and given the key importance of developing an indigenous RD&E capability to Korea's longer term export competitiveness, a second loan for KTDC would be programmed for FY86(S).

65. In the rural sector there has been a rapid outmigration of the population over the past 20 years, with agriculture's share of the labor force declining from about two-thirds in 1960 to one-half in 1970 and one-third at present. Similarly, the contribution of agriculture, forestry and fisheries to GNP fell from 44% in 1961 to 18% in 1981. In spite of the large drop in the relative importance of agriculture, intensive use of the available land has enabled Korea to become largely self-sufficient in rice, the major crop. But there has been some decline recently in cropping intensity.

66. Inevitably, the role of agriculture and the rural sector will continue to decline, as Korea, with its shortage of cultivable land and adverse climatic conditions, must depend on the industrial sector to provide the impetus for its future growth. Nevertheless, as stated in paras. 37-38, a number of important issues remain, and these come down basically to (1) how to assure the minimum level of food production consistent with national security interests, (2) how to avoid a substantial deterioration in Korea's remarkable record of achieving close to parity between effective rural household incomes and urban household incomes and (3) how to achieve these production and income objectives while avoiding serious fiscal problems through heavy subsidization of the farm sector. As already discussed, the Government is in the process of eliminating the deficits of the Grain Management and Fertilizer funds. It hopes to offset the impact of this on production and incomes through increased farm mechanization, land consolidation, rural road construction and the generation of additional off-farm income opportunities. The off-farm income issue is one of the principal issues being studied by a Government task force established under SAL I. The report of this task force, expected shortly, will provide an important input into the agricultural sector study planned by the Bank during FY 83. This study will review the complex of issues in the agriculture and rural sector and provide the basis for understandings on (1) the direction of sector policies and (2) the scope and content of the sector investment program, all in support of a sector loan proposed for FY84.

67. As far as the use of the funds under the proposed sector loan is concerned, and subject to the findings of the sector mission, there seems little justification for further infrastructure lending -- most of the potential for irrigation and land development has already been tapped. Most likely the loan would take the form of an intermediate credit operation, channeled through NACF and AFDC, the two principal public sector agencies providing medium and long-term credit to the farm sector. According to the Fifth Five-Year Plan, a large share of the new investment activities in agriculture would be designed to increase labor productivity, primarily through increased mechanization, with Government support to be in the form of farm credits. Under this approach, one of the objectives of the Bank loan would be to assure that the interest rate and other credit policies would be carefully designed so as to provide appropriate but not excessive incentives for labor-substituting investments.



68. While our main effort in the agriculture sector in the next 2-3 years should be on the proposed sector loan, there is one subsector - marketing - which will receive separate treatment. Marketing is perhaps the most neglected area in the agriculture sector and one which will begin to address in the marketing loan approved in March 1982. This loan will help establish the institutional arrangements and physical facilities necessary to modernize the wholesale marketing system in Seoul, but it needs to be complemented by similar improvements in the other major cities and at other stages in the marketing chain. Studies to be carried out under the FY82 loan should lay the basis for the preparation of further marketing investments designed to develop the institutions and systems necessary to extend the modernization effort nationwide. Our hope is that with the experience gained in implementation of the FY82 project we can thereafter move to financing a time slice of the marketing investment program, with our efforts focussed on the development of the appropriate institutional framework and the policies needed to make it workable. The objective thus would be to make marketing a major component of the proposed follow-on sector loan in FY87(S).

69. The urban sector will be another area of emphasis in our lending. This would be in support of the Government's announced priority of tackling the problems of urban growth which have accompanied the high rate of migration to the cities over the past 20 years. The focus on these problems is an integral part of the current regime's view of how the mistakes of the past must be corrected. The emphasis in the Fifth Five-Year Plan is on meeting the basic needs of urban dwellers and on improving the quality and availability of urban services. Special attention is given to the urban centers outside Seoul and Busan, as deconcentration of economic activity is the vehicle by which inter-regional and inter-sectoral economic disparities and social differences will be reduced. The Government has identified housing, water and sewerage, urban transport and general infrastructure as the primary components of the urban development strategy and among these, housing is the first priority.

70. The Bank's first housing loan to Korea was made in FY81 and the main implementing agencies, the Land Development Corporation and the National Housing Corporation, are starting off well. Through the housing sector study financed under the loan and the Government's agreement to have periodic reviews of sector policies, the groundwork is being laid for future sector lending. A second housing loan is planned for FY83, and while increased emphasis on policy issues is intended for this loan, a move fully to sector lending would be premature. In the first place there is as yet no system within Korea for appraising all aspects of large-scale public housing projects. Equally important, our dialogue on broad housing policy issues is still at an early stage. So far the major issues that have been identified are: (a) how best to develop the financial instruments and institutions necessary to assure an appropriate and orderly flow of public and private funds into the housing sector; (b) how to improve the targeting of public sector housing programs towards the low income population as well as to remove disincentives to the private sector's participation in low income housing; and (c) how to encourage upgrading of existing dwellings in order better to serve the very low income population likely to continue to live in rental units.

We hope that the dialogue on these issues under the first loan will convince the Government of the importance of examining them in depth under the second loan so that we can move to sector lending thereafter. A housing sector loan is thus proposed for FY86(S).

71. We began lending for water supply, where the Government is planning a major expansion, through the project approved by the Executive Directors last December. Future lending in this sector would be aimed at (a) reaching cities in the range of 20 to 50,000 inhabitants where access to safe water and sewerage facilities is both more serious and more in need of Central Government support than in the larger cities; (b) improving institutional arrangements for the selection, preparation and financing of water supply and sewerage investments (there are presently 5 Central Government agencies with overlapping responsibilities in the sector); and (c) ensuring that environmental factors are appropriately taken into account in the development and utilization of water resources. A second water supply project, which is expected also to include a sanitation component, is planned for FY86(S). Another project which would be innovative for Korea is for urban transport (FY85S), where the Government still has the opportunity to avoid major congestion problems if it moves now to deal with the situation. Both Seoul and Busan (combined population of 12 million) have major subway programs under construction. The proposed urban transport operation is designed to integrate the surface system with the subway in a manner which maximizes the efficiency of the entire urban transport system. The major objectives of the project would be (a) to help develop the capability to carry out transport planning, implementation and system management in the major cities; (b) improve policies and regulations affecting bus and taxi transport; (c) demonstrate the high returns that can be achieved with relatively modest investments; and (d) provide technical assistance on methods to improve recovery of subway operating costs.

72. Up to now, and including the proposed (FY84) Jeonju project, we have supported a series of regional development projects which, through the investments financed, have made a significant contribution to the development of the geographical areas served. However, the institution-building element in these projects has been limited. The Government is in the process of setting up an Urban Development Fund in the Ministry of Home Affairs (MOHA). We have been asked to finance the activities of the Fund and, from discussions so far, it appears an appropriate vehicle for the Bank to deal with in several ways. It will (a) provide a framework for developing the planning capacity, currently lacking, to determine priorities among local Government projects competing for scarce Government resources, and (b) enable the Bank to make a contribution to the development of a much wider range of communities than could be reached through the regional development approach. Loans are proposed for the Urban Development Fund in FY85(S) and FY87(S).

73. In energy, as discussed above, our main efforts will be through our SAL lending. Given the importance, however, of reducing dependence on imported oil, we are also giving attention to the possibility of projects for the development of indigenous energy sources. In this respect we are concentrating on coal where, with a small input of funds, the Bank may be able to play a role in helping inexperienced Korean institutions mobilize highly specialized technical and human resources needed to modernize Korea's coal mines.

74. A recent reconnaissance mission has identified a program to help increase the output of Korea's coal mines. The program would foster increased productivity from existing mines through introduction of modern technology, including the application of modern geophysical methods, and the introduction of mechanization techniques and training appropriate to the special physical circumstances of Korean mines. Project preparation will include a review of the adequacy of incentives for investment by mining companies, taking into account improvements in consumer pricing policy agreed under the SAL, and in transport facilities and pricing which we hope to negotiate under the proposed coal and cement distribution project (discussed in para. 76 below). A small (\$15-20 million) loan is proposed for FY84 essentially to finance the technical assistance and equipment to identify the most appropriate new technology and to train Korean personnel. If successful, this could be followed by a comprehensive loan for the coal mining sector (tentatively planned for FY86).

75. The Bank has assisted the transport sector through seven loans for the railroads, four for highways and two for ports. Our involvement has greatly improved the ability of professional engineers to prepare better designs and to successfully implement major civil works projects both domestically and overseas. In this sense, our institution building efforts have proved effective for the construction of civil works on time, although quality could be improved further, and, to a lesser extent, for the setting up of maintenance organization and operations. One area where the institutional arrangements still merit attention is the lower class roads under the jurisdiction of the Ministry of Home Affairs. These roads have been left far behind in the Government's (very successful) rush over the past 10-15 years to establish a national highway network. Development and proper maintenance of provincial and county "gun" roads will support Government efforts to improve agricultural efficiency, and by increasing the access of the rural population to nearby towns and the smaller cities, is expected to contribute to the program for increasing off-farm income. The proposed Tertiary Roads project (FY83) would help establish the institutional framework within MOHA and the local governments for planning, constructing and maintaining provincial and gun roads. The proposed third ports project (FY84) is structured as a project loan of the more traditional variety that we are moving away from in Korea. However, there are still important deficiencies in port investment planning, with responsibility being shared between the Ministry of Transport through the Port Authority for "general" ports and the Ministry of Construction for "industrial" ports in an unsatisfactory division of labor. Improvement in the coordination of port planning and construction will be one of the objectives of the loan.

76. The proposed coal and cement distribution project (FY83) represents the kind of project that seems increasingly appropriate to Korea's stage of development. It would focus on policy measures (particularly transport pricing), facilities (railway and port capacity, handling and storage facilities, specialized cars) and operational

improvements (e.g., use of unit trains) calculated to achieve substantial transport and other cost savings in the handling and distribution of the two major bulk commodities carried by the transport system. As such, the emphasis is not on a particular transport mode but on issues and investment requirements cutting across the transport sector.

77. To guide our further lending on transport, a sector review is being carried out during FY82/83. This review is focusing on the policy issues of system optimization, energy conservation, transport regulation and pricing. In view of Korea's increasing oil dependence, the importance of policies encouraging keen modal competition and further cost recovery is becoming a top priority. Transport regulation and pricing policies are important in this regard as is the planning and coordination of investments by the different transport modes. In spite of Korea's well developed technical capacity to construct civil works, it has failed to build up a strong planning capability within the Government to compare alternative project solutions and select those which yield the optimum economic returns, resulting possibly in overdesigned projects or in wrong modal investment choices. Except for projects financed by multilateral organizations such as the Bank or the Asian Development Bank, economic analyses have generally been neglected. In the last ten years, the scope for mistakes in planning was limited to isolated segments of modal investments; now, however, the basic transport network is largely in place and the next decade will require more sophisticated network analysis to assess the interrelation between sets of multi-modal alternatives to achieve optimal investment. The most difficult aspect of this to deal with is probably intermodal coordination, as the Korean bureaucracy is not structured to deal with issues which cut across sectoral lines. In our view the best approach would be to address the planning and coordination issues in a concrete setting at the project level, where the benefits can be most clearly demonstrated. In this perspective and upon confirmation by the sector review, the loan scheduled for FY86 would most likely be for an intermodal project, dealing with the investment requirements of a major region or transport corridor.

#### Size of Loans and Cost Sharing

78. If our lending is to have the desired policy and institutional impact in a country where the sectoral investment requirements are many times what the Bank can provide, the size of individual loans will have to be relatively very large. This in turn means that the number of operations will have to be quite limited. We are thus proposing a total of 23 loans for the five-year period (excluding the coal preinvestment loan), with an average size of about US\$140 million. As far as cost sharing is concerned, we recommend that full foreign cost financing continue to be the upper limit. In practice most loans would finance much less than full foreign costs. ~~in those cases where they would finance full foreign costs, e.g., urban transport and water supply, the Bank share of total costs is expected to be at most 50%.~~

Coordination with ADB

79. The Asian Development Bank is currently lending about \$200 million a year to Korea and expects to maintain its lending program at about this level in real terms over the next several years. Their pipeline of projects includes loans for housing (1 project), water supply and environmental upgrading (4 projects), development finance companies (5 projects), electric power (1 project), energy conservation (2 projects), vocational and education (1 project), and transport (2 projects). The proposed lending for energy conservation, vocational education and transport should complement Bank activities in these sectors, although in transport, where Korean investment planning is weak and where ADB will be supporting fairly large projects in highways and port development, close coordination will be required to assure that the scope and timing of the investments supported by both institutions is appropriate. ADB has an ongoing relationship with the major Korean DFCs and while it does not expect to have future operations with KDB, it is planning to continue lending to SMIB and CNB and perhaps KLB, but ADB's contribution to these institutions' overall foreign exchange requirements will necessarily be quite modest. Full exchange of information between us and ADB will nevertheless continue to assure consistency in the terms and conditions of our operations with the DFCs. Informal discussions have been held with ADB as to their willingness to adopt a sectoral approach to lending for financial institutions similar to the Bank's, but their view so far is that their lending possibilities are not large enough to warrant this approach.

80. The urban sector - housing, water supply, pollution control - will command a substantial share of ADB's resources over the next few years, and it is in these areas that inter-agency coordination is likely to be most important. A good start is being made in the housing sector where ADB, like the Bank, is moving towards a sectoral approach and expects to rely heavily on the studies being financed under the Bank's ongoing housing loan to fashion its next housing operation. In the area of environmental control, a geographical division of labor has been worked out between the Bank and ADB, with Government concurrence. ADB will concentrate on the (northern) Han River Basin area and the Bank on the (southern) Nagdong River Basin area. In water supply, where Bank involvement is new, each institution so far is working in different urban centers but both expect to move in the future towards assisting the smaller cities and towns where the needs are greatest. While the requirements of these smaller communities are sufficiently large readily to justify the involvement of both institutions, coordination will be required (a) to avoid duplication of efforts and (b) to assure consistency of approach on institutional, financial and other sectoral issues. In this latter connection, ADB and the Bank are closely coordinating efforts to develop an improved institutional structure for handling urban water supply investments.

Cofinancing

81. Traditionally, the Korean Government has been reluctant to involve the Bank in arranging cofinancing with private sources. This appears to be due to the following perceptions: Korea already has good access to international capital markets and has normally focused on wholesale borrowing from these markets to address foreign exchange financing gaps. The amount of cofinancing that might be associated with Bank lending would inevitably be small in relation to Korea's total requirements. Even if cofinancing results in somewhat better terms than might be obtained without it, the impact on total borrowing costs would be negligible. Recently there have been some indications of a more favorable attitude toward Bank-supported cofinancing, but this will only be fully tested in the coming months as we move forward with the coal and cement distribution project where cofinancing will be required.

82. Given the magnitude of Korea's foreign borrowing requirements, our major influence in support of its credit standing, as it affects both access and terms, will have to be exerted through our SAL lending, CG chairmanship and overall lending posture rather than through specific operations. We nevertheless believe that there are a number of advantages for Korea in cofinancing with private banks for Bank projects:

- (a) The Bank is working with Korea on medium and longer term objectives in a number of priority sectors. Given expected Bank resource constraints, cofinancing will become increasingly important if we are to be able to continue meaningful involvement in each of these sectors.
- (b) In the case of sector lending, we could assist the Koreans to arrange financing for the non-Bank financed portion of their sectoral investment requirements. By reaching understandings on the appropriate composition and level of investment and focusing attention on plans for raising the necessary foreign funds to support it, we could help assure that the foreign resources that are raised are used for priority purposes.
- (c) While probably providing little additionality under normal circumstances, cofinancing arrangements could contribute towards a sustained access to international capital markets during times of political or economic difficulties. Private banks would be able to benefit from (i) the additional security offered by cofinancing, and (ii) a closer dialogue with the Bank which could help offset unwarranted concerns.
- (d) Cofinancing could have some effect on terms (beyond whatever small advantage might come from the individual cofinancing operation) in that it could introduce new financial institutions to Korea and by increasing the supply (and type) of potential lenders, help keep borrowing costs down.

Then there is the broader point that we have stressed with the Koreans, i.e., that it is important to the Bank's ability to raise resources and otherwise secure support from major capital exporting countries to be able to demonstrate the catalytic effect of its lending on mobilizing private sector resources for development. Through engaging in cofinancing Korea can help assure that the Bank will be able to continue a substantial lending program for Korea.

#### International Finance Corporation

83. Excluding one project that was subsequently cancelled, IFC had, by June 30, 1982, entered into 31 commitments totalling \$130.3 million (\$28.4 million in equity and \$101.9 million in loans). Total investment outstanding as at June 30, 1982 (at cost) was \$57.0 million. Under consideration are projects in the petrochemical, paper, shipping, metal, and electronics industries. Korea's ambitious industrial development programs require large capital expenditure in the private sector, a situation which indicates a continuing need for IFC presence.

#### Cost of Program

84. A rough estimate of the manpower (staff and consultants) required to deliver the proposed program in FY83-85, as opposed to FY80-82, is shown in the following table:

PROJECTED PROGRAM INVESTMENT, FY83-85 vs. FY80-82  
(In staff-years)

|                                    | FY80-82     | FY83-85     | Change      |
|------------------------------------|-------------|-------------|-------------|
| <u>Projects Department</u>         |             |             |             |
| Lending work                       | 30.3        | 28.8        | -1.5        |
| Sector work                        | 2.7         | 3.3         | +0.6        |
| Supervision                        | 14.9        | 17.4        | +2.5        |
| <u>Total Projects</u>              | <u>47.9</u> | <u>49.5</u> | <u>+1.6</u> |
| <u>OPS and EIS Departments</u>     |             |             |             |
| Lending                            | 3.9         | 2.8         | -1.1        |
| Supervision                        | 3.1         | 3.3         | +0.2        |
| <u>Total OPS and EIS</u>           | <u>7.0</u>  | <u>6.1</u>  | <u>-0.9</u> |
| <u>Country Programs Department</u> |             |             |             |
| Economic and sector work           | 7.8         | 10.2        | +2.4        |
| All other                          | 14.9        | 16.2        | +1.3        |
| <u>Total Programs</u>              | <u>22.7</u> | <u>26.4</u> | <u>+3.7</u> |
| <u>TOTAL PROGRAM</u>               | <u>77.6</u> | <u>82.0</u> | <u>+4.4</u> |

As the table shows, apart from supervision requirements which we expect will increase by about 2.7 staff-years, most of the program growth is accounted for by economic and sector work which is programmed to increase by 3.0 staff-years or 28% when compared to the FY80-82 base period. The reasons for this latter increase are explained in the following section.

#### Economic and Sector Work Program

85. Until the downturn of the Korean economy in 1979-80, the Bank had been phasing down its country economic and sector work (CESW). The CESW during 1977-80 was limited largely to updating economic reports. These reports enabled us to maintain an active macro-economic dialogue with the Korean authorities and provided the principal documentation for the periodic Consultative Group meetings. Also, the 1980 economic report included a first systematic assessment of the emerging structural issues facing the Korean economy and provided an important input into the development of the government's structural adjustment program which is being supported by the recent SAL. The analytical work required to support the SAL program has led to a substantial step up in our CESW. Also, as we move towards more policy-oriented lending at a sectoral level, we need to undertake the sector studies required to provide an adequate analytical basis for our lending operations. Limitations on the Bank's budgetary resources have led us increasingly to seek out Korean experts to assist in this effort, but some increase in Bank resources for CESW will be nevertheless required to support the work program. A further discussion of the proposed CESW is contained in Attachment 5.

#### Consultative Group

86. The Government continues to regard the Consultative Group, under Bank Chairmanship, as one of its principal vehicles for demonstrating to the developed world (a) the efforts it is making to deal with its economic problems; and (b) its continuing need for substantial external financial support. At the most recent CG meeting, held in Paris in June 1982, the Group noted that the Korean economy had been adversely affected by sharply higher energy prices and international interest rates as well as the slow growth of developed countries. Partly as a result, and in spite of substantial adjustment measures by the Government, growth of the economy and employment for the period 1980-81 was very slow. It was noted that there had been an improvement in a number of areas this year, particularly a substantial reduction in inflation and in the current account deficit of the balance of payments. Nevertheless, it was recognized that the changes in the world economy represented important structural shifts in the prospects for long term growth, cost of borrowing and energy prices. It was noted further that the policies and programs designed to accomplish the transition to the new world environment were the central focus of the Fifth Five-Year Plan. The Group endorsed the Plan's strategy which had as its objectives price stability, greater social equity and renewed growth. A new approach to economic management was to be adopted, with greater decentralization of decision-making and a greater reliance on market forces. The meeting welcomed the new management approach



and noted that accomplishment of Plan objectives required emphasis to be placed on policies which the Government intended to effect in order to sustain export competitiveness, to further liberalize trade, foreign investment and the financial sector and to increase domestic savings.

87. The delegates agreed that Korea required and deserved the continued support of capital-exporting countries and international organizations in order to deal with the new challenges it was facing and in pursuing its development objectives. They also agreed that this will require that Korea's trading partners make efforts to keep markets open to Korea's exports and that finance be provided in appropriate amounts and terms. Given Korea's sound debt service situation and the programs for revitalizing export growth, the Group concluded that servicing of the proposed substantial volume of borrowing should be feasible. Given the uncertainties in the international economic situation which could affect Korea's export prospects adversely, it was also concluded that it would be highly desirable for a significant proportion to be provided from official sources; however, the bulk of Korea's total external resources would have to come from private sources.

88. Immediately following the CG meeting, a separate session was held with private bankers. This has become a regular feature of the Paris meeting because of the increasing importance of private finance as a source of supply of Korea's external capital requirements. The bankers' meeting was held on an informal basis. The Bank was invited by the Korean representatives to provide its views of Korean economic performance and external financing requirements and to participate in responding to questions from the bankers who represented a wide range of institutions from Europe, the Middle East, South and East Asia and North America. The next CG meeting is planned for mid-1984.

#### Summary and Conclusions

86. The next few years are expected to be challenging ones for the Korean Government as it attempts to regain the momentum of growth while maintaining price stability and fostering greater equity, in the face of what is expected to be a difficult world environment. Given Korea's stage of development and the maturity of many of its institutions, the role for the Bank increasingly will be to assist the Government in the resolution of some of the broad policy and institutional issues which will arise as it seeks to achieve its growth, employment and social welfare objectives. The lending program and ESW program have been designed with this strategy in mind. Management approval is recommended for a Bank lending program of US\$3.25 billion for FY83-87. In the absence of major political or economic shifts, we recommend that the next CPP be issued in about two years' time.



|                                   |      | Through<br>FY76 | Actual       |              |              |              |              | Proposed     |              |              |              |              | Total<br>FY72-76 | Total<br>FY77-81 | Total<br>FY82-86 | Total<br>FY83-87 | Reserves<br>projects |      |
|-----------------------------------|------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|------------------|------------------|------------------|----------------------|------|
|                                   |      |                 | FY77         | FY78         | FY79         | FY80         | FY81         | FY82         | FY83         | FY84         | FY85         | FY86         |                  |                  |                  |                  |                      | FY87 |
| Agric. Products Processing I      | IBRD | 13.0            |              |              |              | 50.0         |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Agric. Products Processing II     | IBRD |                 |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Seeds Production                  | IBRD | 7.0             |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Livestock I                       | IDA  | 7.0             |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Livestock II                      | IBRD | 15.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Rural Infrastructure I            | IBRD | 80.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
|                                   | (TW) | (40.0)          |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Rural Infrastructure II           | IBRD |                 | 95.0         |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Agriculture Marketing I           | IBRD |                 |              |              |              |              | 50.0         |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Agriculture Sector I              | IBRD |                 |              |              |              |              |              | 110.0        |              |              |              |              |                  |                  |                  |                  |                      |      |
| Agriculture Sector II             | IBRD |                 |              |              |              |              |              |              |              |              | 125.0*       |              |                  |                  |                  |                  |                      |      |
| Regional Development              | IBRD | 15.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Regional Development II           | IBRD |                 |              |              | 65.0         |              |              |              | 80.0         |              |              |              |                  |                  |                  |                  |                      |      |
| Regional Development III (Jeonju) | IBRD |                 |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Housing I                         | IBRD |                 |              |              |              | 90.0         |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Housing II                        | IBRD |                 |              |              |              |              |              | 125.0        |              |              |              |              |                  |                  |                  |                  |                      |      |
| Urban Transport                   | IBRD |                 |              |              |              |              |              |              |              | 75.0*        |              |              |                  |                  |                  |                  |                      |      |
| Urban Development Fund I          | IBRD |                 |              |              |              |              |              |              |              | 100.0*       |              |              |                  |                  |                  |                  |                      |      |
| Urban Development Fund II         | IBRD |                 |              |              |              |              |              |              |              |              | 120.0*       |              |                  |                  |                  |                  |                      |      |
| Housing Sector I                  | IBRD |                 |              |              |              |              |              |              |              |              |              | 125.0*       |                  |                  |                  |                  |                      |      |
| Chungju Multipurpose              | IBRD |                 |              | 125.0        |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Water Supply I                    | IBRD |                 |              |              |              |              | 90.0         |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Water Supply II                   | IBRD |                 |              |              |              |              |              |              |              |              |              | 100.0*       |                  |                  |                  |                  |                      |      |
| Power I                           | IBRD |                 |              |              | 115.0        |              |              |              |              | 20.0         |              |              |                  |                  |                  |                  |                      |      |
| Coal Mining Pre-Investment        | IBRD |                 |              |              |              |              |              |              |              |              |              |              | 100.0            |                  |                  |                  |                      |      |
| Coal Mining                       | IBRD |                 |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Highway I                         | IBRD | 54.5            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Highway II                        | IBRD | 47.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Highway III                       | IBRD | 90.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Highway IV                        | IBRD |                 |              |              | 143.0        |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Tertiary Roads                    | IBRD |                 |              |              |              |              |              | 125.0        |              |              |              |              |                  |                  |                  |                  |                      |      |
| Railway I                         | IDA  | 14.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Railway II                        | IDA  | 11.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Railway III                       | IDA  | 15.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Railway IIII                      | IBRD | 40.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Railway IV                        | IBRD | 40.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Railway V                         | IBRD | 100.0           |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Railway VI                        | IBRD |                 |              | 120.0        |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Railway VII                       | IBRD |                 |              |              | 94.0         |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Ports I                           | IBRD | 80.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Ports II                          | IBRD |                 | 67.0         |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Ports III                         | IBRD |                 |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Coal & Cement Distribution        | IBRD |                 |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Integrated Transport              | IBRD |                 |              |              |              |              |              |              | 100.0        |              |              |              |                  |                  |                  |                  |                      |      |
| Tourism                           | IBRD | 25.0            |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Population                        | IBRD |                 |              |              |              | 30.0         |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| LENDING PROGRAM                   | IBRD | 1,165.0         | 443.5        | 439.0        | 397.0        | 544.0        | 390.0        | 470.0        | 670.0        | 660.0        | 675.0        | 625.0        | 620.0            | 930.5            | 2,213.5          | 3,100.0          | 3,250.0              |      |
|                                   | IDA  | 107.3           | -            | -            | -            | -            | -            | -            | -            | -            | -            | -            | -                | 45.5             | -                | -                | -                    |      |
| <b>TOTAL</b>                      |      | <b>1,272.3</b>  | <b>443.5</b> | <b>439.0</b> | <b>397.0</b> | <b>544.0</b> | <b>390.0</b> | <b>470.0</b> | <b>670.0</b> | <b>660.0</b> | <b>675.0</b> | <b>625.0</b> | <b>620.0</b>     | <b>976.0</b>     | <b>2,213.5</b>   | <b>3,100.0</b>   | <b>3,250.0</b>       |      |
| Number<br>(of which IDA)          |      | 31<br>(5 + 3**) | 7<br>(-)     | 6<br>(-)     | 4<br>(-)     | 8<br>(-)     | 5<br>(-)     | 5<br>(-)     | 5<br>(-)     | 5***<br>(-)  | 4<br>(-)     | 5<br>(-)     | 4<br>(-)         | 23<br>(3)        | 30<br>(-)        | 24<br>(-)        | 23<br>(-)            |      |
| Lending Program in Constant 1981  |      |                 |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Commitment \$                     |      | 2,045.5         | 628.2        | 559.2        | 462.2        | 584.9        | 390.0        | 438.8        | 587.2        | 544.6        | 524.9        | 458.5        | 429.1            | 1,883.6          | 2,624.5          | 2,554.0          | 2,544.3              |      |
| Commitment Deflator               |      |                 |              |              |              |              |              |              |              |              |              |              |                  |                  |                  |                  |                      |      |
| Standby Projects                  | IBRD | 62.2            | 70.6         | 78.5         | 85.9         | 93.0         | 100.0        | 107.1        | 114.1        | 121.2        | 128.6        | 136.3        | 144.5            |                  |                  |                  |                      |      |
|                                   | IDA  | -               | -            | -            | -            | -            | -            | -            | -            | -            | -            | -            | -                |                  |                  |                  |                      |      |
| <b>TOTAL</b>                      |      |                 |              |              |              |              |              |              |              | 175.0        | 525.0        | 245.0        | -                |                  |                  |                  |                      |      |
| Number                            |      |                 |              |              |              |              |              |              |              | 2            | 4            | 2            | -                |                  |                  |                  |                      |      |

\* Standby projects.  
\*\* Three IDA Credits combined with Bank loans.  
\*\*\* Excluding coal mining pre-investment.

## KOREA - SUMMARY OF BANK GROUP AND OTHER OFFICIAL LENDING

|  | Through<br>FY76 | Actual       |                |              |                |                |                | Proposed       |              |              |              |              | Total<br>FY72-76 | Total<br>FY77-81 | Total<br>FY82-86 | Total<br>FY83-87 |
|--|-----------------|--------------|----------------|--------------|----------------|----------------|----------------|----------------|--------------|--------------|--------------|--------------|------------------|------------------|------------------|------------------|
|  |                 | FY77         | FY78           | FY79         | FY80           | FY81           | FY82           | FY83           | FY84         | FY85         | FY86         | FY87         |                  |                  |                  |                  |
| <b>SECTORAL DISTRIBUTION OF BANK GROUP COMMITMENTS (%)</b> |                 |              |                |              |                |                |                |                |              |              |              |              |                  |                  |                  |                  |
| Program assistance & SAL                                   | 13.8            | -            | -              | -            | -              | -              | 53.2           | -              | 37.8         | 37.0         | -            | -            | 17.9             | -                | 24.2             | 15.4             |
| Education  | 6.3             | -            | 5.2            | -            | 18.4           | -              | -              | -              | 15.2         | -            | -            | 20.2         | 6.7              | 5.6              | 3.2              | 6.9              |
| Finance  | 18.8            | 34.4         | 37.6           | 25.2         | 16.3           | 64.1           | 6.4            | 37.3           | -            | 37.0         | -            | 40.3         | 19.0             | 34.2             | 17.1             | 23.1             |
| Industry   | -               | 18.0         | -              | 7.3          | -              | -              | -              | 10.6           | 10.4         | -            | -            | 16.0         | -                | 4.9              | 7.1              | 5.2              |
| Agriculture & rural development                            | 19.3            | 32.5         | 29.9           | -            | 9.2            | 12.8           | 10.6           | -              | 16.7         | -            | -            | 20.2         | 15.7             | 16.9             | 5.2              | 7.2              |
| Urban development/water supply & sanitation                | 1.2             | -            | -              | 31.5         | 12.0           | 23.1           | 19.2           | 18.7           | 12.1         | 26.0         | 36.0         | 19.3         | 1.5              | 12.6             | 22.4             | 22.3             |
| Energy   | -               | -            | -              | -            | 21.1           | -              | -              | -              | 3.0          | -            | 16.0         | -            | -                | 5.2              | 3.9              | 3.7              |
| Transportation   | 38.6            | 15.1         | 27.3           | 36.0         | 17.3           | -              | -              | 33.6           | 15.2         | -            | 32.0         | -            | 36.6             | 19.2             | 16.9             | 16.2             |
| Pop. health & nutrition                                    | -               | -            | -              | -            | 5.5            | -              | -              | -              | -            | -            | -            | -            | -                | 1.4              | -                | -                |
| Tourism  | 2.0             | -            | -              | -            | -              | -              | -              | -              | -            | -            | -            | -            | 2.6              | -                | -                | -                |
| <b>Total</b>   | <b>100.0</b>    | <b>100.0</b> | <b>100.0</b>   | <b>100.0</b> | <b>100.0</b>   | <b>100.0</b>   | <b>100.0</b>   | <b>100.0</b>   | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b>     | <b>100.0</b>     | <b>100.0</b>     | <b>100.0</b>     |
| <b>BANK GROUP DISBURSEMENTS (US\$)</b>                     |                 |              |                |              |                |                |                |                |              |              |              |              |                  |                  |                  |                  |
| IBRD o/s /a incl. undisbursed                              | 1,104.3/b       | 1,552.7/c    | 2,082.8/d      | 2,602.5/e    | 3,018.2/f      | 3,045.3/g      | 3,424.4        | 3,892.3        | 4,418.6      | 4,871.7      | 5,311.8      | 5,727.3      |                  |                  |                  |                  |
| excl. undisbursed  | 499.5/b         | 798.4/c      | 1,112.5/d      | 1,600.6/e    | 1,847.9/f      | 1,795.1/g      | 2,050.3        | 2,349.6        | 2,674.1      | 3,131.0      | 3,721.7      | 4,197.3      |                  |                  |                  |                  |
| IBRD Gross Disbursements                                   | 519.0           | 292.9        | 222.3          | 365.3        | 375.3          | 310.1          | 366.1          | 446.4          | 508.2        | 703.8        | 875.5        | 810.1        | 499.7            |                  |                  |                  |
| less: amortization   | 26.1            | 14.3         | 22.0           | 31.0         | 46.9           | 85.2           | 110.9          | 147.1          | 183.7        | 246.9        | 284.8        | 334.5        | 25.9             |                  |                  |                  |
| equals: net disbursements                                  | 492.9           | 278.6        | 200.3          | 334.3        | 328.4          | 224.9          | 255.2          | 299.3          | 324.5        | 456.9        | 590.7        | 475.6        | 473.8            |                  |                  |                  |
| less: interest & charges                                   | 71.1            | 50.9         | 73.1           | 107.7        | 134.4          | 147.4          | 168.8          | 200.7          | 232.2        | 268.7        | 326.7        | 376.6        | 69.4             |                  |                  |                  |
| equals: net transfer                                       | 421.8           | 227.7        | 127.2          | 226.6        | 194.0          | 77.5           | 86.4           | 98.6           | 92.3         | 188.2        | 264.0        | 99.0         | 404.4            |                  |                  |                  |
| IBRD/IDA Gross Disbursements                               | 608.5           | 303.9        | 228.3          | 365.3        | 375.3          | 310.1          | 366.1          | 446.4          | 508.2        | 703.8        | 875.5        | 810.1        | 551.7            |                  |                  |                  |
| less: amortization   | 26.9            | 14.5         | 22.3           | 31.4         | 47.4           | 85.9           | 111.6          | 148.4          | 185.1        | 248.3        | 286.2        | 335.9        | 26.6             |                  |                  |                  |
| equals: net disbursements                                  | 581.6           | 289.4        | 206.0          | 333.9        | 327.9          | 224.2          | 254.5          | 298.0          | 323.1        | 455.5        | 589.3        | 474.2        | 525.1            |                  |                  |                  |
| less: interest & charges                                   | 74.6            | 31.7         | 73.9           | 108.6        | 135.3          | 148.2          | 169.6          | 201.5          | 233.0        | 269.5        | 327.5        | 377.3        | 71.8             |                  |                  |                  |
| equals: net transfer                                       | 507.0           | 237.7        | 132.1          | 225.3        | 192.6          | 76.0           | 84.9           | 96.5           | 90.1         | 186.0        | 261.8        | 96.9         | 453.3            |                  |                  |                  |
| <b>IBRD EXPOSURE (%)</b>                                   |                 |              |                |              |                |                |                |                |              |              |              |              |                  |                  |                  |                  |
|  |                 | CY 1976      | 1977           | 1978         | 1979           | 1980           | 1981           | 1985           | 1990         |              |              |              |                  |                  |                  |                  |
| IBRD disbursements/total gross disbursements               | 16.0            | 9.0          | 8.2            | 9.2          | 7.2            | 6.2            | 8.0            | 7.7            |              |              |              |              |                  |                  |                  |                  |
| IBRD DOD/total DOD   | 9.9             | 10.0         | 9.6            | 10.5         | 10.4           | 9.5            | 5.6            | 2.0            |              |              |              |              |                  |                  |                  |                  |
| IBRD debt service/total debt service                       | 5.5             | 6.3          | 6.3            | 5.9          | 6.6            | 6.1            | 4.9            | 2.2            |              |              |              |              |                  |                  |                  |                  |
| <b>COMMITMENTS FROM OFFICIAL SOURCES (US\$)</b>            |                 |              |                |              |                |                |                |                |              |              |              |              |                  |                  |                  |                  |
| <b>Grants</b>  |                 |              |                |              |                |                |                |                |              |              |              |              |                  |                  |                  |                  |
| -  |                 |              |                |              |                |                |                |                |              |              |              |              |                  |                  |                  |                  |
| <b>Concessional Loans</b>                                  |                 |              |                |              |                |                |                |                |              |              |              |              |                  |                  |                  |                  |
| Total bilateral  | 320.7           | 62.5         | 272.3          | 49.6         | 266.4          | 200.0          | 200.0          | 200.0          |              |              |              |              |                  |                  |                  |                  |
| DAC governments  | 251.0           | 62.5         | 272.3          | 49.6         | 266.4          | 200.0          | 200.0          | 200.0          |              |              |              |              |                  |                  |                  |                  |
| OPEC governments   | 69.7            | -            | -              | -            | -              | -              | -              | -              |              |              |              |              |                  |                  |                  |                  |
| Total multilateral   | -               | -            | -              | -            | -              | -              | -              | -              |              |              |              |              |                  |                  |                  |                  |
| <b>Nonconcessional Loans</b>                               |                 |              |                |              |                |                |                |                |              |              |              |              |                  |                  |                  |                  |
| Total bilateral  | 487.8           | 361.0        | 820.5          | 334.2        | 1,405.3        | 560.0          | 790.5          | 1,216.3        |              |              |              |              |                  |                  |                  |                  |
| DAC governments  | 487.8           | 361.0        | 820.5          | 290.8        | 1,405.3        | 560.0          | 790.5          | 1,216.3        |              |              |              |              |                  |                  |                  |                  |
| OPEC governments   | -               | -            | -              | 43.4         | -              | -              | -              | -              |              |              |              |              |                  |                  |                  |                  |
| Total multilateral   | 485.5           | 470.2        | 809.0          | 539.1        | 413.0          | 665.7          | 1,059.8        | 1,818.6        |              |              |              |              |                  |                  |                  |                  |
| IBRD   | 371.5           | 335.0        | 659.0          | 424.0        | 274.0          | 510.0          | 840.0          | 1,480.4        |              |              |              |              |                  |                  |                  |                  |
| Other  | 114.0           | 135.2        | 150.0          | 115.1        | 139.0          | 155.7          | 219.8          | 338.2          |              |              |              |              |                  |                  |                  |                  |
| <b>TOTAL COMMITMENTS</b>                                   | <b>1,294.0</b>  | <b>893.7</b> | <b>1,901.8</b> | <b>922.9</b> | <b>2,084.7</b> | <b>1,425.7</b> | <b>2,050.3</b> | <b>3,234.9</b> |              |              |              |              |                  |                  |                  |                  |

/a As of the end of the fiscal year.

/b The exchange adjustment of \$6.6 million as of June 30, 1976 is included in these figures.

/c The exchange adjustment of \$26.9 million as of June 30, 1977 is included in these figures, with an increase of \$20.3 million since FY76.

/d The exchange adjustment of \$14.0 million as of June 30, 1978 is included in these figures, with an increase of \$11.1 million since FY77.

/e The exchange adjustment of \$179.6 million as of June 30, 1979 is included in these figures, with an increase of \$39.6 million since FY78.

/f The exchange adjustment of \$212.7 million as of June 30, 1980 is included in these figures, with an increase of \$33.1 million since FY79.

/g The exchange adjustment of \$-65.0 million as of June 30, 1981 is included in these figures, with an increase of \$277.7 million since FY80.

East Asia and Pacific Region  
Country Programs Department  
Division 5  
September 1982

TABLE 3A  
KOREA REPUBLIC OF - SOCIAL INDICATORS DATA SHEET

| AREA (THOUSAND SQ. KM.)  | KOREA REPUBLIC OF |          |             |    | REFERENCE GROUPS (WEIGHTED AVERAGES<br>- MOST RECENT ESTIMATE) <sup>1/2</sup> |               |
|--|-------------------|----------|-------------|----|---|---------------|
|  | 1960              | /b       | MOST RECENT |    | MIDDLE INCOME   | MIDDLE INCOME |
|  |                   |          | 1970        | /b | ESTIMATE  | /b            |
| TOTAL  | 98.5              |          |             |    |   |               |
| AGRICULTURAL   | 22.5              |          |             |    |   |               |
| <b>GNP PER CAPITA (US\$)</b>   | 190.0             | 430.0    | 1520.0      |    | 890.1   | 1902.0        |
| <b>ENERGY CONSUMPTION PER CAPITA</b><br>(KILOGRAMS OF COAL EQUIVALENT) | 208.0             | 657.3    | 1472.5      |    | 701.7   | 1259.9        |
| <b>POPULATION AND VITAL STATISTICS</b>                                 |                   |          |             |    |   |               |
| POPULATION, MID-YEAR (THOUSANDS)                                       | 25012.0           | 32241.0  | 38197.0     |    | .   | .             |
| URBAN POPULATION (PERCENT OF TOTAL)                                    | 27.7              | 40.7     | 54.8        |    | 32.4  | 65.7          |
| <b>POPULATION PROJECTIONS</b>  |                   |          |             |    |   |               |
| POPULATION IN YEAR 2000 (MILLIONS)                                     |                   |          | 52.2        |    | .   | .             |
| STATIONARY POPULATION (MILLIONS)                                       |                   |          | 70.1        |    | .   | .             |
| YEAR STATIONARY POPULATION IS REACHED                                  |                   |          | 2065        |    | .   | .             |
| <b>POPULATION DENSITY</b>  |                   |          |             |    |   |               |
| PER SQ. KM.  | 254.0             | 327.4    | 381.8       |    | 255.9   | 35.2          |
| PER SQ. KM. AGRICULTURAL LAND  | 1168.8            | 1389.1   | 1669.4      |    | 1748.0  | 92.5          |
| <b>POPULATION AGE STRUCTURE (PERCENT)</b>                              |                   |          |             |    |   |               |
| 0-14 YRS.  | 42.9              | 42.1     | 35.1        |    | 39.9  | 39.7          |
| 15-64 YRS.   | 53.7              | 54.6     | 61.1        |    | 56.8  | 56.1          |
| 65 YRS. AND ABOVE  | 3.3               | 3.3      | 3.8         |    | 3.3   | 4.2           |
| <b>POPULATION GROWTH RATE (PERCENT)</b>                                |                   |          |             |    |   |               |
| TOTAL  | 2.1               | 2.5      | 1.9         |    | 2.3   | 2.4           |
| URBAN  | 4.7               | 6.4      | 4.9         |    | 3.9   | 3.8           |
| <b>CRUDE BIRTH RATE (PER THOUSAND)</b>                                 |                   |          |             |    |   |               |
| CRUDE DEATH RATE (PER THOUSAND)  | 42.7              | 30.3     | 25.3        |    | 31.8  | 31.4          |
| GROSS REPRODUCTION RATE  | 13.4              | 9.1      | 7.9         |    | 9.8   | 8.4           |
| FAMILY PLANNING  | 2.7               | 2.1      | 1.6         |    | 2.0   | 2.1           |
| ACCEPTORS, ANNUAL (THOUSANDS)  | ..                | 671.0    | 686.0/c     |    | .   | .             |
| USERS (PERCENT OF MARRIED WOMEN)                                       | ..                | 32.0     | 49.1        |    | 36.3  | ..            |
| <b>FOOD AND NUTRITION</b>  |                   |          |             |    |   |               |
| <b>INDEX OF FOOD PRODUCTION</b>  |                   |          |             |    |   |               |
| PER CAPITA (1969-71=100)   | 89.0              | 99.0     | 113.0       |    | 115.6   | 110.0         |
| <b>PER CAPITA SUPPLY OF</b>  |                   |          |             |    |   |               |
| CALORIES (PERCENT OF REQUIREMENTS)                                     | 97.4              | 107.0    | 117.2/d     |    | 106.4   | 108.4         |
| PROTEINS (GRAMS PER DAY)   | 57.1              | 62.8     | 72.17/d     |    | 54.4  | 66.0          |
| OF WHICH ANIMAL AND PULSE  | 7.0               | 8.2      | 14.37/d     |    | 13.9  | 34.0          |
| CHILD (AGES 1-4) MORTALITY RATE  | 8.6               | 3.9      | 2.1         |    | 6.7   | 5.6           |
| <b>HEALTH</b>  |                   |          |             |    |   |               |
| LIFE EXPECTANCY AT BIRTH (YEARS)                                       | 54.4              | 60.3     | 65.4        |    | 59.8  | 64.2          |
| INFANT MORTALITY RATE (PER THOUSAND)                                   | 78.3              | 50.1     | 34.1        |    | 63.7  | 64.2          |
| <b>ACCESS TO SAFE WATER (PERCENT OF POPULATION)</b>                    |                   |          |             |    |   |               |
| TOTAL  | 12.1              | 58.0     | 71.0        |    | 32.0  | 65.6          |
| URBAN  | 18.6              | 84.0     | 85.0        |    | 51.9  | 78.9          |
| RURAL  | 9.5               | 38.0     | 54.9        |    | 20.5  | 43.9          |
| <b>ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)</b>              |                   |          |             |    |   |               |
| TOTAL  | ..                | 25.0     | 64.0/e      |    | 37.7  | 59.3          |
| URBAN  | ..                | 59.0     | 68.0/e      |    | 65.7  | 75.3          |
| RURAL  | ..                | ..       | 50.0/e      |    | 24.0  | 30.0          |
| POPULATION PER PHYSICIAN   | 3540.8            | 2238.3   | 1978.8/d    |    | 8540.4  | 1617.3        |
| POPULATION PER NURSING PERSON  | 3245.1/f,g        | 1786.5/f | 487.47/d    |    | 4829.4  | 1063.5        |
| POPULATION PER HOSPITAL BED  |                   |          |             |    |   |               |
| TOTAL  | 2513.5            | 1949.5   | 642.4/e     |    | 1047.5  | 477.4         |
| URBAN  | 1286.9            | 1095.3   | 754.8/e     |    | 651.6   | 679.8         |
| RURAL  | ..                | ..       | ..          |    | 2597.6  | 1903.4        |
| ADMISSIONS PER HOSPITAL BED  | ..                | 14.9     | ..          |    | 27.0  | 27.3          |
| <b>HOUSING</b>   |                   |          |             |    |   |               |
| <b>AVERAGE SIZE OF HOUSEHOLD</b>                                       |                   |          |             |    |   |               |
| TOTAL  | 5.6               | 5.0      | 4.5         |    | ..  | ..            |
| URBAN  | 5.4               | ..       | ..          |    | ..  | ..            |
| RURAL  | 5.6               | ..       | ..          |    | ..  | ..            |
| <b>AVERAGE NUMBER OF PERSONS PER ROOM</b>                              |                   |          |             |    |   |               |
| TOTAL  | 2.5               | 2.3      | 2.0/c       |    | ..  | ..            |
| URBAN  | 2.8               | 2.7      | 2.17/c      |    | ..  | ..            |
| RURAL  | 2.4               | 2.2      | 2.07/c      |    | ..  | ..            |
| <b>ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)</b>                    |                   |          |             |    |   |               |
| TOTAL  | 28.4              | 49.9     | ..          |    | ..  | ..            |
| URBAN  | 67.3              | 92.4     | ..          |    | ..  | ..            |
| RURAL  | 12.4              | 29.9     | 64.9/d      |    | ..  | ..            |

TABLE 3A  
KOREA REPUBLIC OF - SOCIAL INDICATORS DATA SHEET

|   | KOREA REPUBLIC OF |        |         | REFERENCE GROUPS (WEIGHTED AVERAGES<br>- MOST RECENT ESTIMATE) <sup>/a</sup> |             |                |                           |
|---|-------------------|--------|---------|--|-------------|----------------|---------------------------|
|   | 1960              | /b     | 1970    | /b   | ESTIMATE /b | MIDDLE INCOME  | MIDDLE INCOME             |
|   |                   |        |         |  |             | ASIA & PACIFIC | LATIN AMERICA & CARIBBEAN |
| <b>EDUCATION</b>  |                   |        |         |  |             |                |                           |
| <b>ADJUSTED ENROLLMENT RATIOS</b>   |                   |        |         |  |             |                |                           |
| PRIMARY:  | TOTAL             | 94.0   | 105.0   | 111.0  |             | 96.2           | 104.3                     |
|   | MALE              | 99.0   | 106.0   | 112.0  |             | 99.8           | 106.4                     |
|   | FEMALE            | 89.0   | 105.0   | 111.0  |             | 92.1           | 103.3                     |
| SECONDARY:  | TOTAL             | 27.0   | 42.0    | 76.0   |             | 37.6           | 41.3                      |
|   | MALE              | 38.0   | 51.0    | 82.0   |             | 41.1           | 40.4                      |
|   | FEMALE            | 14.0   | 33.0    | 70.0   |             | 34.1           | 41.8                      |
| VOCATIONAL ENROL. (% OF SECONDARY)  |                   | 14.2   | 14.3    | 19.7   |             | 20.8           | 33.7                      |
| <b>PUPIL-TEACHER RATIO</b>  |                   |        |         |  |             |                |                           |
| PRIMARY   |                   | 58.2   | 56.9    | 48.1   |             | 35.5           | 29.9                      |
| SECONDARY   |                   | 34.3   | 36.5    | 39.0   |             | 25.0           | 16.7                      |
| ADULT LITERACY RATE (PERCENT)   |                   | 70.6   | 87.6    | 93.0   |             | 73.1           | 79.1                      |
| <b>CONSUMPTION</b>  |                   |        |         |  |             |                |                           |
| PASSENGER CARS PER THOUSAND   | POPULATION        | 0.5    | 1.9     | 6.2  |             | 9.8            | 42.8                      |
| RADIO RECEIVERS PER THOUSAND  | POPULATION        | 31.2   | 124.4   | 402.2  |             | 116.5          | 270.5                     |
| TV RECEIVERS PER THOUSAND   | POPULATION        | 0.3    | 13.1    | 150.6  |             | 37.6           | 107.7                     |
| NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION  |                   | 69.0   | 136.3   | 172.8  |             | 53.7           | 63.7                      |
| CINEMA ANNUAL ATTENDANCE PER CAPITA                                       |                   | 4.0    | 5.2     | 2.0  |             | 2.8            | 2.7                       |
| <b>LABOR FORCE</b>  |                   |        |         |  |             |                |                           |
| TOTAL LABOR FORCE (THOUSANDS)   |                   | 8307.2 | 11285.2 | 14637.0  |             | .              | .                         |
| FEMALE (PERCENT)  |                   | 26.1   | 32.7    | 32.5   |             | 33.6           | 24.4                      |
| AGRICULTURE (PERCENT)   |                   | 66.0   | 50.0    | 34.0   |             | 52.2           | 31.3                      |
| INDUSTRY (PERCENT)  |                   | 9.0    | 18.0    | 29.0   |             | 17.9           | 23.9                      |
| <b>PARTICIPATION RATE (PERCENT)</b>                                       |                   |        |         |  |             |                |                           |
| TOTAL   |                   | 33.2   | 35.0    | 38.3   |             | 38.5           | 33.6                      |
| MALE  |                   | 49.5   | 46.8    | 51.3   |             | 50.5           | 50.4                      |
| FEMALE  |                   | 17.2   | 23.0    | 25.1   |             | 26.6           | 16.8                      |
| ECONOMIC DEPENDENCY RATIO   |                   | 1.4    | 1.3     | 1.0  |             | 1.1            | 1.3                       |
| <b>INCOME DISTRIBUTION</b>  |                   |        |         |  |             |                |                           |
| <b>PERCENT OF PRIVATE INCOME RECEIVED BY</b>                              |                   |        |         |  |             |                |                           |
| HIGHEST 5 PERCENT OF HOUSEHOLDS   |                   | 15.1/h | 17.1    | 16.1/e   |             | ..             | ..                        |
| HIGHEST 20 PERCENT OF HOUSEHOLDS  |                   | 42.3/h | 44.5    | 45.3/e   |             | ..             | ..                        |
| LOWEST 20 PERCENT OF HOUSEHOLDS   |                   | 5.7/h  | 7.1     | 5.7/e  |             | ..             | ..                        |
| LOWEST 40 PERCENT OF HOUSEHOLDS   |                   | 19.0/h | 17.7    | 16.9/e   |             | ..             | ..                        |
| <b>POVERTY TARGET GROUPS</b>  |                   |        |         |  |             |                |                           |
| <b>ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)</b>          |                   |        |         |  |             |                |                           |
| URBAN   |                   | ..     | ..      | 320.0  |             | 194.7          | ..                        |
| RURAL   |                   | ..     | ..      | 270.0  |             | 155.1          | 184.1                     |
| <b>ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)</b>          |                   |        |         |  |             |                |                           |
| URBAN   |                   | ..     | ..      | 370.0  |             | 178.2          | 518.0                     |
| RURAL   |                   | ..     | ..      | 310.0  |             | 164.9          | 371.1                     |
| <b>ESTIMATED POPULATION BELOW ABSOLUTE POVERTY INCOME LEVEL (PERCENT)</b> |                   |        |         |  |             |                |                           |
| URBAN   |                   | ..     | ..      | 18.0   |             | 24.4           | ..                        |
| RURAL   |                   | ..     | ..      | 11.0   |             | 41.1           | ..                        |

.. Not available  
 . Not applicable.

NOTES

/a The group averages for each indicator are population-weighted arithmetic means. Coverage of countries among the indicators depends on availability of data and is not uniform.

/b Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1978 and 1980.

/c 1975; /d 1977; /e 1976, /f Registered, not all practicing in the country; /g 1962; /h 1965.

## DEFINITIONS OF SOCIAL INDICATORS

Notes: Although the data are drawn from sources generally judged the most authoritative and reliable, it should also be noted that they may not be internationally comparable because of the lack of standardized definitions and concepts used by different countries in collecting the data. The data are, nonetheless, useful to describe orders of magnitude, indicate trends, and characterize certain major differences between countries.

The reference groups are (1) the same country group of the subject country and (2) a country group with somewhat higher average income than the country group of the subject country (except for "High Income - Oil Exporters" group where "Middle Income North Africa and Middle East" is chosen because of stronger socio-cultural affinities). In the reference group data the averages are population weighted arithmetic means or each indicator and shown only when majority of the countries in a group has data for that indicator. Since the coverage of countries among the indicators depends on the availability of data and is not uniform, caution must be exercised in relating averages of one indicator to another. These averages are only useful in comparing the value of one indicator at a time among the country and reference groups.

## AREA (thousand sq.km.)

**Total** - Total surface area comprising land area and inland waters; 1979 data.  
**Agricultural** - Estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow; 1979 data.

**GNP PER CAPITA (US\$)** - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1978-80 basis); 1960, 1970, and 1980 data.

**ENERGY CONSUMPTION PER CAPITA** - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita; 1960, 1970, and 1979 data.

## POPULATION AND VITAL STATISTICS

**Total Population, Mid-Year (thousands)** - As of July 1; 1960, 1970, and 1980 data.

**Urban Population (percent of total)** - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries; 1960, 1970, and 1980 data.

## Population Projections

**Population in year 2000** - Current population projections are based on 1980 total population by age and sex and their mortality and fertility rates. Projection parameters for mortality rates comprise of three levels assuming life expectancy at birth increasing with country's per capita income level and female mortality rate stabilizing at 77.5 years. The parameters for fertility rate also have three levels assuming decline in fertility according to income level and past family planning performance. Each country is then assigned one of these nine combinations of mortality and fertility trends for projection purposes.

**Stationary population** - In a stationary population there is no growth since the birth rate is equal to the death rate, and also the age structure remains unchanged unless fertility rates decline to decline to the replacement level of unit net reproduction rate, when each generation of women replaces itself exactly. The stationary population size was estimated on the basis of the projected characteristics of the population in the year 2000, and the rate of decline of fertility rate to replacement level.

**Year stationary population is reached** - The year when stationary population size will be reached.

## Population Density

**Per sq. km.** - Mid-year population per square kilometer (100 hectares) of total area; 1960, 1970 and 1979 data.  
**Per sq. km. agricultural land** - Computed as above for agricultural land only; 1960, 1970 and 1979 data.

**Population Age Structure (percent)** - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population; 1960, 1970, and 1980 data.

**Population Growth Rate (percent) - total** - Annual growth rates of total mid-year population for 1950-60, 1960-70, and 1970-80.

**Population Growth Rate (percent) - urban** - Annual growth rates of urban populations for 1950-60, 1960-70, and 1970-80.

**Crude Birth Rate (per thousand)** - Annual live births per thousand of mid-year population; 1960, 1970, and 1980 data.

**Crude Death Rate (per thousand)** - Annual deaths per thousand of mid-year population; 1960, 1970, and 1980 data.

**Gross Reproduction Rate** - Average number of daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1980.

**Family Planning - Acceptors, Annual (thousands)** - Annual number of acceptors of birth-control devices under auspices of national family planning program.

**Family Planning - Users (percent of married women)** - Percentage of married women of child-bearing age (15-45 years) who use birth-control devices to all married women in same age group.

## FOOD AND NUTRITION

**Index of Food Production per Capita (1969-71=100)** - Index of per capita annual production of all food commodities. Production excludes seed and feed and is on calendar year basis. Commodities cover primary goods (e.g. sugarcane instead of sugar) which are edible and contain nutrients (e.g. coffee and tea are excluded). Aggregate production of each country is based on national average producer price weights; 1961-65, 1970, and 1980 data.

**Per capita supply of calories (percent of requirements)** - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports, and changes in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distribution of population, and allowing 10 percent for waste at household level; 1961-65, 1970 and 1977 data.

**Per capita supply of protein (grams per day)** - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by USDA provide for minimum allowances of 60 grams of total protein per day and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey; 1961-65, 1970 and 1977 data.

**Per capita protein supply from animal and pulse** - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.  
**Child (ages 1-4) Death Rate (per thousand)** - Annual deaths per thousand in age group 1-4 years, to children in this age group, for most developing countries data derived from life tables; 1960, 1970 and 1980 data.

## HEALTH

**Life Expectancy at Birth (years)** - Average number of years of life remaining at birth; 1960, 1970 and 1980 data.  
**Infant Mortality Rate (per thousand)** - Annual deaths of infants under one year of age per thousand live births; 1960, 1970 and 1980 data.

**Access to Safe Water (percent of population)** - total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

**Access to Excreta Disposal (percent of population)** - total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and treatment, with or without treatment, of urban excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

**Population per Physician** - Population divided by number of practising physicians qualified from a medical school at university level.

**Population per Nursing Person** - Population divided by number of practising male and female graduate nurses, assistant nurses, practical nurses and nursing auxiliaries.

**Population per Hospital Bed - total, urban, and rural** - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities. For statistical purposes urban hospitals include WHO's principal/general hospitals, and rural hospitals, local or rural hospitals and medical and maternity centers. Specialized hospitals are included only under total.  
**Admissions per Hospital Bed** - Total number of admissions to or discharges from hospitals divided by the number of beds.

## HOUSING

**Average Size of Household (persons per household)** - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes.  
**Average number of persons per room** - total, urban, and rural - average number of persons per room in all urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.  
**Access to Electricity (percent of dwellings)** - total, urban, and rural - Conventual dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

## EDUCATION

## Adjusted Enrollment Ratios

**Primary school - total, male and female** - Gross total, male and female enrollment of all ages at the primary level as percentages of respective producer age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

**Secondary school - total, male and female** - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

**Vocational enrollment (percent of secondary)** - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

**Pupil-teacher ratio - primary, and secondary** - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

**Adult literacy rate (percent)** - literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

## CONSUMPTION

**Passenger Cars (per thousand population)** - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.

**Radio Receivers (per thousand population)** - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.

**TV Receivers (per thousand population)** - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.

**Newspaper Circulation (per thousand population)** - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

**Cinema Annual Attendance per Capita per Year** - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

## LABOR FORCE

**Total Labor Force (thousands)** - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc., covering population of all ages. Definitions in various countries are not comparable; 1960, 1970 and 1980 data.

**Female (percent)** - Female labor force as percentage of total labor force.

**Agriculture (percent)** - Labor force in farming, forestry, hunting and fishing as percentage of total labor force; 1960, 1970 and 1980 data.

**Industry (percent)** - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force; 1960, 1970 and 1980 data.

**Participation Rate (percent)** - total, male, and female - Participation or activity rates are computed as total, male, and female labor force as percentages of total, male and female population of all ages respectively; 1960, 1970, and 1980 data. These are based on ILO's participation rates reflecting age-sex structure of the population, and long time trend. A few estimates are from national sources.

**Economic Dependency Ratio** - Ratio of population under 15 and 65 and over to the total labor force.

## INCOME DISTRIBUTION

**Percentage of Private Income (both in cash and kind)** - Received by richest 5 percent, richest 20 percent, poorest 20 percent, and poorest 40 percent of households.

## POVERTY TARGET GROUPS

The following estimates are very approximate measures of poverty levels, and should be interpreted with considerable caution.

**Estimated Absolute Poverty Income Level (US\$ per capita)** - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

**Estimated Relative Poverty Income Level (US\$ per capita)** - urban and rural - Rural relative poverty income level is one-third of average per capita personal income of the country. Urban level is derived from the rural level with adjustment for higher cost of living in urban areas.

**Estimated Population Below Absolute Poverty Income Level (percent)** - urban and rural - Percent of population (urban and rural) who are "absolute poor".

KOREA - ECONOMIC INDICATORS

| Indicator  | Amount<br>(million US\$ at<br>current prices)<br>1980/a | Annual growth rates (%) at constant prices |         |         |         |                            |                 |              |       |  |
|--|---|--|---------|---------|---------|----------------------------|-----------------|--------------|-------|--|
|  |   | Actual                                     |         |         |         |                            |                 | Projected    |       |  |
|  |   | 1976                                       | 1977    | 1978    | 1979    | 1980                       | 1981/a          | 1985         | 1990  |  |
| <b>NATIONAL ACCOUNTS</b>                                     |   |  |         |         |         |                            |                 |              |       |  |
| Gross domestic product                                       | 59,177  | 13.9                                       | 10.1    | 11.3    | 7.1     | -3.5                       | 8.0             | 7.6          | 8.0   |  |
| Agriculture  | 9,754   | 10.7                                       | 2.1     | -4.0    | 6.7     | -22.0                      | 23.0            | 2.5          | 2.5   |  |
| Industry   | 24,396  | 20.1                                       | 15.8    | 20.8    | 8.4     | -0.5                       | 4.7             | 10.0         | 10.0  |  |
| Services   | 25,027  | 10.8                                       | 9.7     | 11.0    | 6.0     | -4.2                       | 2.9             | 7.0          | 7.0   |  |
| Consumption  | 45,215  | 8.8  | 7.1     | 11.0    | 7.4     | -1.0                       | 4.2             | 4.8          | 6.4   |  |
| Gross investment   | 17,889  | 8.0  | 24.0    | 35.9    | 17.5    | -24.4                      | 5.6             | 8.5          | 7.6   |  |
| Exports of GNFS  | 21,145  | 43.0                                       | 25.7    | 17.5    | -3.6    | 9.9                        | 17.5            | 11.0         | 10.6  |  |
| Imports of GNFS  | 25,846  | 26.9                                       | 23.8    | 29.1    | 8.6     | -7.7                       | 7.9             | 7.4          | 8.8   |  |
| Gross national savings                                       | 12,268  | 42.3                                       | 17.3    | 14.1    | 3.7     | -17.7                      | 18.0            | -            | -     |  |
| <b>PRICES</b>  |   |  |         |         |         |                            |                 |              |       |  |
| GDP deflator (1975 = 100)                                    |   | 116.3                                      | 135.8   | 164.6   | 197.4   | 246.7                      | 289.0           | -            | -     |  |
| Exchange rate (US\$1 =)                                      |   | 484.0                                      | 484.0   | 484.0   | 484.0   | 607.6                      | -               | -            | -     |  |
| Export price index (1975 = 100)                              |   | 112.8                                      | 120.2   | 137.2   | 161.2   | 168.7                      | 179.9           | 240.9        | 321.1 |  |
| Import price index (1975 = 100)                              |   | 103.0                                      | 103.9   | 108.4   | 137.3   | 175.2                      | 170.2           | 233.5        | 316.6 |  |
| Terms of trade index (1975 = 100)                            |   | 109.5                                      | 115.7   | 126.6   | 117.4   | 96.3                       | 105.7           | 103.2        | 101.4 |  |
| <b>Share of GDP at market prices (%) (at current prices)</b> |   |  |         |         |         |                            |                 |              |       |  |
|  |   | 1960                                       | 1970    | 1975    | 1980    | 1985                       | 1990            |              |       |  |
| Gross domestic product                                       |   | 100.0                                      | 100.0   | 100.0   | 100.0   | 100.0                      | 100.0           |              |       |  |
| Agriculture  |   | 36.7                                       | 26.9    | 24.5    | 16.5    | 15.9                       | 12.4            |              |       |  |
| Industry   |   | 20.1                                       | 29.5    | 33.8    | 41.3    | 44.4                       | 49.2            |              |       |  |
| Services   |   | 43.2                                       | 43.6    | 41.7    | 42.3    | 39.7                       | 38.3            |              |       |  |
| Consumption  |   | 85.3                                       | 83.0    | 80.1    | 76.4    | 65.7                       | 58.1            |              |       |  |
| Gross investment   |   | 11.0                                       | 26.9    | 29.0    | 30.2    | 33.2                       | 33.8            |              |       |  |
| Exports of GNFS  |   | 3.4  | 14.3    | 27.6    | 35.7    | 43.7                       | 49.6            |              |       |  |
| Imports of GNFS  |   | 12.8                                       | 24.1    | 36.3    | 42.7    | 42.6                       | 43.9            |              |       |  |
| Gross national savings /b                                    |   | 8.0  | 19.5    | 20.6    | 21.7    | -                          | -               |              |       |  |
| <b>Average annual increase (%) (at constant prices)</b>      |   |  |         |         |         |                            |                 |              |       |  |
|  |   | 1960-70                                    | 1970-75 | 1975-80 | 1980-85 | 1985-90                    |                 |              |       |  |
| Gross domestic product                                       |   | 8.6  | 9.8     | 8.2     | 7.3     | 7.7                        |                 |              |       |  |
| Agriculture  |   | 4.3  | 4.9     | -1.2    | 5.3     | 2.5                        |                 |              |       |  |
| Industry   |   | 17.4                                       | 15.3    | 13.5    | 9.1     | 10.0                       |                 |              |       |  |
| Services   |   | 8.1  | 7.7     | 7.6     | 6.2     | 7.0                        |                 |              |       |  |
| Consumption  |   | 6.7  | 7.8     | 7.1     | 4.8     | 6.1                        |                 |              |       |  |
| Gross investment   |   | 23.6                                       | 11.2    | 14.6    | 9.2     | 8.8                        |                 |              |       |  |
| Exports of GNFS  |   | 29.3                                       | 25.4    | 16.1    | 10.9    | 10.5                       |                 |              |       |  |
| Imports of GNFS  |   | 20.2                                       | 15.8    | 17.0    | 7.2     | 8.4                        |                 |              |       |  |
| Gross national savings /b                                    |   | 17.2                                       | 14.6    | -       | -       | -                          |                 |              |       |  |
| <b>As % of GDP</b>   |   |  |         |         |         |                            |                 |              |       |  |
|  |   | 1960                                       | 1970    | 1975    | 1980    |                            |                 |              |       |  |
| <b>PUBLIC FINANCE</b>  |   |  |         |         |         |                            |                 |              |       |  |
| Current revenues   |   | 18.5                                       | 17.8    | 17.9    | 19.9    |                            |                 |              |       |  |
| Current expenditures   |   | 14.3                                       | 13.1    | 15.4    | 15.6    |                            |                 |              |       |  |
| Current surplus  |   | 4.2  | 4.7     | 2.5     | 4.3     |                            |                 |              |       |  |
| Capital expenditure  |   | 3.4  | 6.4     | 6.4     | 5.9     |                            |                 |              |       |  |
| Foreign financing  |   | ...  | 1.0     | 1.3     | 1.0     |                            |                 |              |       |  |
|  |   |  |         |         |         | <b>Labor Force in 1980</b> | <b>Millions</b> | <b>(%)</b>   |       |  |
|  |   |  |         |         |         | Agriculture                | 4.7             | 32.2         |       |  |
|  |   |  |         |         |         | Industry                   | 3.9             | 27.1         |       |  |
|  |   |  |         |         |         | Services                   | 5.1             | 35.5         |       |  |
|  |   |  |         |         |         | Unemployed                 | 0.7             | 5.2          |       |  |
|  |   |  |         |         |         | <b>Total Labor Force</b>   | <b>14.5</b>     | <b>100.0</b> |       |  |
| <b>OTHER INDICATORS</b>                                      |   |  |         |         |         |                            |                 |              |       |  |
|  |   | 1960-70                                    | 1970-75 | 1975-80 | 1980-85 | 1985-90                    |                 |              |       |  |
| Annual GNP growth rate (%)                                   |   | 8.7  | 9.0     | 7.9     | 7.5     | 8.0                        |                 |              |       |  |
| Annual GNP per capita growth rate (%)                        |   | 5.9  | 6.9     | 5.2     | 5.9     | 6.4                        |                 |              |       |  |
| Annual energy consumption growth rate (%)                    |   | 14.2                                       | 9.6     | 12.3/c  | 7.7     | ...                        |                 |              |       |  |
| ICOR   |   | 1.9  | 2.7     | 5.4     | 4.7     | 4.4                        |                 |              |       |  |
| Marginal savings rate  |   | 0.3  | 0.3     | 0.3     | 0.5     | 0.4                        |                 |              |       |  |
| Import elasticity  |   | 2.2  | 1.6     | 2.0     | 1.0     | 1.1                        |                 |              |       |  |

/a Preliminary.

/b Including net transfers.

/c 1975-79.



Population : 38,445 (mid-1980, thousands)  
 GDP per capita: US\$1,516 (1980)

KOREA - EXTERNAL TRADE

| Indicator               | Amount<br>(million US\$ at<br>current prices)<br>1980 | Annual growth rates (%) (at constant 1980 prices) |       |       |       |       |       |        |       |           |       |
|-------------------------|---|---|-------|-------|-------|-------|-------|--------|-------|-----------|-------|
|                         |   | Actual  |       |       |       |       |       |        |       | Projected |       |
|                         |   | 1975  | 1976  | 1977  | 1978  | 1979  | 1980  | 1981/a | 1982  | 1983      | 1984  |
| <b>EXTERNAL TRADE</b>   |   |   |       |       |       |       |       |        |       |           |       |
| Merchandise exports     | 17,505  | 16.1  | 34.3  | 22.2  | 11.0  | 0.7   | 11.2  | 15.2   | 11.3  | 11.4      | 11.5  |
| Primary                 | 1,761   | 32.3  | -23.8 | 41.1  | -0.6  | -14.2 | 3.6   | 15.2   | -1.0  | -1.0      | -1.0  |
| Manufactures            | 15,744  | 12.3  | 50.3  | 19.5  | 12.9  | 2.9   | 12.1  | 15.2   | 12.5  | 12.5      | 12.5  |
| Merchandise imports     | 22,292  | 11.4  | 17.1  | 22.2  | 32.7  | 7.3   | -14.1 | 10.7   | 6.9   | 7.1       | 7.2   |
| Food                    | 2,160   | 32.8  | -14.7 | 28.0  | 27.4  | 31.6  | -5.1  | 48.4   | 9.4   | 10.3      | 10.1  |
| Petroleum               | 6,164   | ...   | 15.8  | 29.8  | -1.1  | 13.5  | 1.0   | 3.3    | 3.7   | 3.7       | 3.7   |
| Machinery and equipment | 4,976   | ...   | 21.5  | 17.2  | 65.5  | 13.9  | -28.8 | 5.3    | 5.9   | 6.0       | 5.9   |
| Others                  | 8,992   | -3.7  | ...   | ...   | ...   | ...   | ...   | 3.3    | 9.2   | 9.3       | 9.3   |
| <b>PRICES</b>           |   |   |       |       |       |       |       |        |       |           |       |
| Export price index      |   | 59.3  | 66.9  | 71.3  | 81.3  | 95.6  | 100.0 | 105.4  | 118.3 | 127.7     | 137.3 |
| Import price index      |   | 57.1  | 58.8  | 59.3  | 61.9  | 78.3  | 100.0 | 105.9  | 119.4 | 130.0     | 141.2 |
| Terms of trade index    |   | 103.9   | 113.8 | 120.2 | 131.3 | 122.1 | 100.0 | 99.5   | 99.1  | 98.2      | 97.2  |

|                         | Composition of merchandise trade (%)<br>(at current prices) |       |       |       |       |       | Average annual increase (%)<br>(at constant 1980 prices) |         |         |         |         |
|-------------------------|---|-------|-------|-------|-------|-------|--|---------|---------|---------|---------|
|                         | 1960  | 1970  | 1975  | 1980  | 1985  | 1990  | 1960-70  | 1970-75 | 1975-80 | 1980-85 | 1985-90 |
|                         | Exports   | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0  | 34.6    | 32.6    | 15.1    | 11.5    |
| Primary                 | 89.0  | 23.3  | 18.4  | 10.2  | 5.7   | 3.2   | ...  | ...     | -1.7    | -1.0    | -1.0    |
| Manufactures            | 11.0  | 76.7  | 81.6  | 89.8  | 94.3  | 96.8  | ...  | ...     | 18.5    | 12.5    | 11.5    |
| Imports                 | 100.0   | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 18.8   | 11.1    | 13.3    | 7.1     | 8.4     |
| Food                    | 10.5  | 17.2  | 14.2  | 10.0  | 10.8  | 13.1  | ...  | ...     | 13.3    | 8.5     | 12.9    |
| Petroleum               | 6.8   | 6.7   | 18.4  | 28.2  | 24.8  | 22.4  | ...  | ...     | 10.5    | 3.6     | 6.2     |
| Machinery and equipment | 12.2  | 29.7  | 26.2  | 22.7  | 21.8  | 19.0  | ...  | ...     | 13.8    | 5.6     | 5.3     |
| Others                  | 70.5  | 46.4  | 41.2  | 39.1  | 42.6  | 45.5  | ...  | ...     | 14.2    | 9.3     | 9.8     |

| DIRECTION OF TRADE | Share of trade with<br>industrial countries (%) |      |      |      | Share of trade with<br>developing countries (%) |      |      |      | Share of trade with capital<br>surplus oil exporters (%) |      |      |      |
|--------------------|---|------|------|------|---|------|------|------|--|------|------|------|
|                    | 1965  | 1970 | 1975 | 1980 | 1965  | 1970 | 1975 | 1980 | 1965   | 1970 | 1975 | 1980 |
|                    | Exports   | 74.7 | 86.2 | 79.7 | 65.0  | ...  | 11.9 | 17.0 | 26.9   | ...  | 1.9  | 3.3  |
| Primary            | ...   | ...  | 14.1 | ...  | ...   | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Manufactures       | ...   | ...  | 65.6 | ...  | ...   | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Imports            | 84.7  | 82.5 | 70.9 | 60.4 | ...   | 11.0 | 11.8 | 16.9 | ...  | 6.5  | 17.3 | 22.7 |

... = Not available.

/a Preliminary.

Population : 38,445 (mid-1980, thousands)  
 GDP per capita: US\$1,516 (1980)

KOREA - BALANCE OF PAYMENTS, EXTERNAL CAPITAL AND DEBT  
 (million US\$ at current prices)

| Indicator                                     | Actual      |               |               |               |               |               |               | Projected     |               |               |
|---|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|   | 1970        | 1975          | 1976          | 1977          | 1978          | 1979          | 1980          | 1981/a        | 1985          | 1990          |
| <b>BALANCE OF PAYMENTS</b>                    |             |               |               |               |               |               |               |               |               |               |
| Exports of goods and services                 | 1,379       | 5,909         | 9,467         | 13,059        | 17,124        | 19,523        | 22,577        | 27,400        | 55,074        | 121,077       |
| Of which: merchandise f.o.b.                  | 882         | 5,028         | 7,821         | 10,035        | 12,678        | 14,694        | 17,214        | 20,850        | 43,368        | 97,476        |
| Imports of goods and services                 | 2,180       | 7,992         | 10,119        | 13,272        | 18,651        | 24,115        | 28,347        | 32,655        | 59,810        | 119,694       |
| Of which: merchandise f.o.b.                  | 1,804       | 6,671         | 8,407         | 10,517        | 14,436        | 19,266        | 21,598        | 24,105        | 45,557        | 95,014        |
| Net transfers                                 | 178         | 225           | 345           | 222           | 467           | 439           | 449           | 512           | 668           | 893           |
| <u>Current account balance</u>                | <u>-623</u> | <u>-1,858</u> | <u>-307</u>   | <u>8</u>      | <u>-1,060</u> | <u>-4,153</u> | <u>-5,321</u> | <u>-4,743</u> | <u>-3,968</u> | <u>+2,276</u> |
| (% of GNP)                                    | (-7.2)      | (-9.2)        | (-1.1)        | (+0.02)       | (-2.2)        | (-7.1)        | (-9.3)        | (-7.2)        | (-3.3)        | (+3.1)        |
| Direct investment                             | 66          | 53            | 75            | 72            | 61            | 17            | 96            | 122           | 800           | 1,749         |
| MLT loans (net)                               | 242         | 1,252         | 1,238         | 1,458         | 2,746         | 2,944         | 2,096         | 3,419         | 3,821         | 6,019         |
| Official                                      | 147         | 486           | 663           | 594           | 663           | 853           | 689           | 1,108         | 893           | 908           |
| Private                                       | 95          | 765           | 575           | 864           | 2,083         | 2,090         | 1,408         | 2,311         | 2,927         | 5,111         |
| Other capital                                 | 372         | 929           | 308           | -167          | -1,039        | 2,090         | 4,362         | 1,792         | 1,682         | -7,436        |
| <u>Change in reserves</u>                     | <u>-57</u>  | <u>-376</u>   | <u>-1,314</u> | <u>-1,372</u> | <u>-707</u>   | <u>-898</u>   | <u>-863</u>   | <u>-326</u>   | <u>-1,348</u> | <u>-2,611</u> |
| <u>International reserves</u>                 | <u>610</u>  | <u>797</u>    | <u>1,985</u>  | <u>2,992</u>  | <u>2,828</u>  | <u>3,112</u>  | <u>3,975</u>  | <u>4,301</u>  | <u>9,352</u>  | <u>19,370</u> |
| Reserves as months imports                    | 3.4         | 1.2           | 2.4           | 2.7           | 1.8           | 1.5           | 1.7           | 1.6           | 1.8           | 1.9           |
| <b>EXTERNAL CAPITAL AND DEBT</b>              |             |               |               |               |               |               |               |               |               |               |
| <u>Gross disbursements</u>                    |             |               |               |               |               |               |               |               |               |               |
| Official grants                               | -           | -             | -             | -             | -             | -             | -             | -             | -             | -             |
| Concessional loans                            | 123         | 123           | 238           | 163           | 184           | 193           | 138           | 159           | 205           | 200           |
| DAC   | 122         | 108           | 226           | 132           | 167           | 173           | 121           | 158           | 205           | 200           |
| OPEC  | -           | -             | -             | 21            | 13            | 20            | 17            | 1             | -             | -             |
| IDA   | 1           | 14            | 10            | 9             | 3             | -             | -             | -             | -             | -             |
| Other   | -           | 1             | 2             | 1             | -             | -             | -             | -             | -             | -             |
| Non-concessional loans                        | 317         | 1,511         | 1,518         | 2,040         | 3,729         | 4,448         | 3,655         | 4,779         | 7,457         | 13,855        |
| Official export credits                       | 18          | 151           | 132           | 262           | 219           | 341           | 606           | 844           | 711           | 1,054         |
| IBRD  | 7           | 189           | 286           | 190           | 321           | 426           | 254           | 306           | 611           | 1,075         |
| Other multilateral                            | 5           | 87            | 83            | 85            | 89            | 91            | 90            | 104           | 168           | 255           |
| Private                                       | 287         | 1,083         | 1,017         | 1,503         | 3,101         | 3,591         | 2,705         | 3,525         | 5,968         | 11,471        |
| <u>Medium- and Long-Term Debt</u>             |             |               |               |               |               |               |               |               |               |               |
| Debt outstanding and disbursed                | 1,797       | 5,540         | 6,817         | 8,593         | 11,937        | 14,553        | 16,585        | 19,766        | 36,538        | 59,291        |
| Official                                      | 613         | 2,657         | 3,359         | 4,121         | 5,016         | 5,667         | 6,531         | 7,806         | 12,102        | 16,440        |
| Private                                       | 1,185       | 2,883         | 3,458         | 4,472         | 6,921         | 8,886         | 10,054        | 11,960        | 24,436        | 42,851        |
| Undisbursed                                   | 902         | 1,629         | 3,459         | 4,793         | 6,294         | 5,337         | 11,293        | 5,047         | 5,828         | 9,208         |
| <u>Debt Service on MLT Loans</u>              |             |               |               |               |               |               |               |               |               |               |
| Total service payments                        | 268         | 667           | 910           | 1,201         | 1,827         | 2,634         | 3,192         | 3,505         | 7,083         | 13,444        |
| Interest                                      | 70          | 283           | 392           | 475           | 659           | 936           | 1,442         | 1,791         | 3,242         | 5,408         |
| Payments as % exports                         | 19.4        | 11.3          | 9.6           | 9.2           | 10.7          | 13.5          | 14.2          | 12.9          | 12.8          | 11.1          |
| <u>Short-Term Debt</u>                        |             |               |               |               |               |               |               |               |               |               |
| Debt outstanding and disbursed                | ...         | 2,409         | 3,045         | 3,239         | 3,575         | 6,279         | 10,047        | 13,658        | 18,649        | 15,864        |
| Interest payments                             | ...         | ...           | ...           | 152           | 236           | 377           | 907           | 1,810         | 2,237         | 2,261         |
| Interest as % exports                         | ...         | ...           | ...           | 1.2           | 1.4           | 1.9           | 4.0           | 6.7           | 4.1           | 1.9           |
| <u>Average Interest Rate on New Loans (%)</u> |             |               |               |               |               |               |               |               |               |               |
| Official                                      | 4.5         | 7.9           | 7.1           | 7.9           | 7.4           | 7.6           | -             | -             | -             | -             |
| Private                                       | 7.1         | 9.3           | 8.3           | 8.4           | 9.7           | 11.5          | -             | -             | -             | -             |
| <u>Average Maturity of New Loans (years)</u>  |             |               |               |               |               |               |               |               |               |               |
| Official                                      | 28.0        | 19.3          | 21.7          | 18.3          | 19.2          | 16.8          | -             | -             | -             | -             |
| Private                                       | 10.9        | 5.7           | 8.7           | 8.8           | 9.3           | 9.3           | -             | -             | -             | -             |

As % of debt outstanding  
at end of most recent  
year (1980)

Maturity structure of debt outstanding  
 Maturities due within 5 years 35.6  
 Maturities due within 10 years 61.6

Interest structure of debt outstanding  
 Interest due within first year 6.3

/a Preliminary

PROGRESS TOWARDS PREVIOUS CPP GOALS

1. The last CPP, dated October 1978, was prepared during the period when Korea was enjoying rapid economic growth and the resiliency of the economy had been demonstrated by rapid recovery from the 1972-74 oil shock. The vision of the policy makers and the industrious skills of the private sector were being widely extolled. A primary objective of the lending strategy and program proposed at that time was to assist Korea in sustaining its growth momentum. The basic issue in this respect was whether Korea could deepen and diversify its industrial structure to the extent necessary to meet its export targets. With this in mind the Bank proposed to analyze the major financial and industrial sector issues and to move gradually towards a consolidated approach to lending to the major public sector institutions providing medium- and long-term finance to industry. Such lending would provide a vehicle for discussions of sector wide policy and institutional issues. The proposed program also aimed at integrating technical assistance and manpower development with financial support, by providing loans for technological improvements, research and development and higher technical education as well as vocational training. Particular emphasis was to be placed on small and medium machinery firms and on the electronics subsector. The proposed education loan was to be a sector loan to modernize and expand the system of higher technical education so as to increase its flexibility and responsiveness to the changing requirements of the economy. Subsectoral loans were also proposed for the three highway projects in the Five-Year program, for the proposed railway project (where time slice financing would continue as in the past), the possibility of doing the same for the proposed port project was to be considered. With respect to the transport sector as a whole, the CPP indicated that sector studies would be completed in "a year's time" which would scrutinize in detail the specific projects and issues to ensure that the expansion of transport facilities occurred in the most economic manner. This would include investments necessary to improve the distribution of bulk commodities such as coal and cement, rail and road transport projects in intercity corridors, as well as studies to examine the costs and tariffs of various transport modes.

2. Another objective of the 1978 CPP lending strategy was to provide increased support to the Government's efforts to improve income distribution to the benefit of the rural/agricultural sector. Projects in the lending program were designed to diversify the sources and increase the income of the rural population. The seven projects for the sector included in the Five-Year period included four land, water and rural infrastructure projects (irrigation, land consolidation and watershed development) of the type which had been financed by the Bank in previous years, and three agricultural services support projects, such as credit for agricultural crops and product processing, and a loan for the marketing of agricultural products. Proposed lending in other sectors, such as for small industrial enterprises located outside the major cities and for improving rural roads were designed to contribute to the objective of raising off-farm income.

A second multi-purpose project was also included in the program which would contribute to rural development as well as to the goal of improving water supply for secondary cities.

3. The CPP would also support other priority areas within the Government's development program as follows:

- (a) Foster the development of regional poles of development to serve as alternatives to the rapidly growing Seoul and Pusan areas. Two regional development projects were included in the program to meet this end.
- (b) Increase the emphasis placed on social development such as in the fields of health, family planning, water supply and housing. A population project and two water supply projects were included in the program for this purpose. While efforts were to continue to develop a housing loan, insufficient progress had been achieved to include such a loan in the program, although this was listed as a reserve project.
- (c) Assist financing in the rapidly expanding power sector by including two projects in the lending program, because of the large investment costs and to help correct an inadequate pricing structure. The Bank agreed to serve as Executing Agency for a UNDP financed Energy Study which was to explore the range of energy choices and identify policies to match the choices.

#### Evaluation

4. Looking back at FY79 and the first three years of the Five-Year period covered by the CPP, it is notable that in spite of the sharp downturn in the economy that had not been foreseen in 1978, progress was in major respects consistent with the lines set out. Actual lending for FY79-82 is expected to be almost identical in amount and within one project of the program approved in the CPP. The movement towards sector lending got underway with the Bank's first sector loan for Education in FY80. A time slice loan for railways was made in FY80.

5. In the industrial sector, lending to DFCs in FY79-82 is expected to amount to \$480 million in seven projects rather than \$430 in four projects. To some extent this reflects increased lending for institutions serving medium- and small-scale industrial enterprises where further institutional strength needs to be developed. The increased number of projects is attributable also partly to the Management decision to separate a proposed combined loan to the Korean Development Bank (KDB) and the Korean Loan Term Credit Bank (KLB) into two separate loans. Progress was nevertheless made towards sector lending in these loans to KDB and KLB (signed in January 1981) as they were negotiated together and the principal

focus was on reaching agreement on policy measures which had been recommended in the financial sector study conducted by the Bank in 1979/80. Among the principal understandings reached were to cease subsidized and directed National Investment Fund lending through commercial banks by the end of 1984, and to bring interest rates charged by institutions in the financial system to a positive level in real terms (an objective that has now been achieved).

6. The proposed program to integrate technical assistance to industry with financial support by providing loans for research and development and for technological improvement has not yet been fully realized. However, progress in this direction was made in the loan for the electronics industry in FY79 and proposed in the loan to KTDC for FY82.

7. In the agricultural sector, projects were approved for agricultural services support in FYs 80 and 81 (for Agricultural Products Processing II and Agricultural Credit II respectively). The proposed loan for Agricultural Marketing was delayed from FY81 to FY82, primarily because of a series of personnel changes in the Korean Ministry of Agriculture which had affected policy direction for this project. However, none of the four projects for agricultural infrastructure, i.e., for irrigation and land/water-shed development and for small scale rural infrastructure moved forward nor are they now planned for Bank financing. The execution of ongoing infrastructure projects in this sector were cut back by the Government since it could not keep up with the inflation-induced large cost increases in construction projects. Similarly cost increases cost doubt on the economic feasibility of the new projects, designed largely for the production of low cost agricultural products (grains).

8. In the transport sector, as indicated above, the planned railways project received a loan in FY80. A highway loan was made in FY79, although structured as a traditional project loan rather than a sector loan. As far as the studies designed to review and select the most suitable investments in bulk commodity distribution and intercity corridors are concerned, these were delayed partly because of difficulties in arranging the necessary interagency coordination required for these studies and partly because of budgetary stringency associated with the economic slowdown of 1979-81. The coal and cement distribution project has been delayed from FY81 to FY83 and an urban transport project, expected to result from the studies, will not be ready until FY84 or FY85. Also the port project, expected for FY82, is still under preparation and not likely to go forward until FY84. Lending volume for transport will be significantly less than had been planned.

9. With respect to the projects for the urban sector, e.g. secondary cities and for regional development, these have moved forward more rapidly than had been planned. The Gwangju Regional Development Project received the planned loan in FY80, a housing loan was made in FY81, and the planned water supply project, approved in FY82, was larger and more comprehensive than had been planned.

10. The loans for Population and Power were made in FY80 as scheduled --the Population loan being somewhat larger than originally planned. However, a second power project for distribution is not contemplated because of Korean requirements that equipment be purchased locally.

11. In sum, less lending was made for agriculture and transport. This shortfall was made up by increased lending for industry and urban/regional development. The plan to place lending for financial/industrial activities on a sector basis made substantial progress in FY81 and is now expected to come fully to fruition in FY83. A first sector loan for education was made, and time slice lending proceeded for highways and railroads. A more coordinated intermodal lending program in the transport sector still lies in the future. A significant deviation from the program planned in the 1978 CPP was the advent of lending for structural adjustment which was initiated in FY82 to assist the Korean economy to adjust to changed international circumstances.

ECONOMIC AND SECTOR WORK PROGRAM

1. In FY81 a considerable amount of staff time was absorbed by the analytical work and policy discussions associated with the preparation of SAL I. The analysis begun under SAL I will be further elaborated in the CEM scheduled for submission to the Consultative Group in July 1982. But since the purpose of the CEM is to provide an in-depth assessment of the Fifth FYP, the social sectors and agriculture will also be evaluated. A second SAL to be undertaken in FY83, while retaining the focus of SAL I, will extend the analysis that has been done and provide an opportunity to take stock of macroeconomic changes during 1982/83. The majority of the analytical work being done on energy, industry, resource mobilization and rural income support issues for SAL II is being performed by Korean institutions. The SAL and CEM work is being closely coordinated with the IMF. An IMF staff member was a member of the SAL appraisal mission, and two IMF staff members participated in the mission which prepared the CEM.

2. Work on the SAL and the CEM will be complemented by a number of studies. The one on the labor market will assist in providing a better understanding of the determinants of labor supply and of wages and by allowing us to discern the future contours of the labor market. It will have an important macroeconomic dimension as wage levels, which rose rapidly in the late 1970s, will continue to be an important determinant of Korea's export competitiveness. The contribution of wages to inflation will be analyzed and alternative policies for coping with rising unit labor costs discussed. A Korean economist from the Korean Development Institute will assist in this work. A second study dealing with export promotion and technology development will build on this work and on the analysis of the supply of skilled manpower which forms a part of our investigation of the education sector. This study will start late in FY83 and concentrate on the level and distribution of investment among export categories; on fiscal, financial and institutional measures for promoting domestic R&D so as to develop new, technology intensive exports; on the international trading environment; and on a variety of other factors such as capital investment and skilled labor supply, which have a bearing on competitiveness.

3. At the sectoral level we will be concentrating on: (a) financial issues; (b) agriculture; and (c) transport. A study on the financial sector was completed in FY81, and further analytical work pertaining principally to the fragmentation of interest rate structure and the structure of corporate finance will be undertaken beginning in late FY82. This work will be closely coordinated with the preparation of the planned FY83 financial sector loan and will be based in part on a study of the issues involved being undertaken by a Korean University under contract with the Bank. Intersectoral mobility of labor and employment opportunities in the rural areas are major topics to be covered by the rural sector study; other topics are grain self-sufficiency, rural investment, output mix and price supports.

The study is designed to assist the Government in defining the rural sector's role in the next decade. We expect this work to prepare the ground for a sector loan in FY84. The transport study discussed in para. 82 above will serve as an input to the policy dialogue revolving around our future transport lending operations. A study nearing completion which focuses on higher level science education has allowed us to review one dimension of Korean manpower needs. The study of industrial training planned for FY84 will provide a critical perspective on the steps being taken to increase the availability of skills for which industrial demand is growing. The results of this work are expected to serve as the basis for an education sector loan. A study of housing finance will analyze emerging problems in the housing and construction sectors and help support the policy dialogue related to our future urban lending operations.

91. For FY84 we foresee a CEM whose emphasis will be on macroeconomic trends and prospects within the context of the evolving global environment. This would feed into the work connected with the third and final SAL operation, preparation of which would start in FY84.



REGION: EAST ASIA & PACIFIC  
 COUNTRY: KOREA

COUNTRY SUMMARY Table 1Economic and Sector Work by Task, FY 1982-84

| Tasks                                       | Aims and Coverage /a  | Managing division | Total Staff-weeks Required |            |            |
|---|---|-------------------|----------------------------|------------|------------|
|   |   |                   | FY82                       | FY83       | FY84       |
| <b>I. Regionally Managed</b>                |   |                   |                            |            |            |
| <b>A. Economic Reports (ERA)</b>            |   |                   |                            |            |            |
| 1. Country Economic Memo                    |   |                   | 105                        |            | 85         |
| 2. Special Economic Reports                 |   |                   |                            |            |            |
| a. Labour Market Study                      | Analysis of the labor market with a view to deepening the dialogue on the issues raised in the context of our operations e.g. restraining wage increases, maintaining export competitiveness, determining the appropriate rate of migration from the rural sector and preventing an excessive increase in urban unemployment. | AEADE             | 30**                       | 50**       |            |
| <b>B. Sector Reports (SRA)</b>              |   |                   |                            |            |            |
| 1. Sector Surveys                           |   |                   |                            |            |            |
| a. Water Supply                             | Update of sector data, review of Government strategies, identification of major problems and proposed methods to resolve them, including identification of projects eligible for external financing.  |                   | 1                          |            |            |
| 2. Sector Reviews                           |   |                   |                            |            |            |
| a. Transport Issues                         | Review of Transport Sector issues to provide a basis for future lending in the sector.  | AEPTI             | 44*                        | 15*        |            |
| b. Financial Sector                         | A review of issues relating to the unification of interest rates and the strengthening of the corporate finance structure, as well as an update on developments in the liberalization of the financial sector.  | AEADE             | 12                         | 21         |            |
| 3. Special Sector Studies                   |   |                   |                            |            |            |
| a. Rural Sector                             | Review of sector issues which would serve to underpin future lending in sector.   | AEPA3             | 4                          | 40         |            |
| b. Industrial Change and Export Promotion   | An analysis of world trade patterns for identifying promising areas of exports and of fiscal and financial incentives and institutional changes necessary for developing technology.  | AEADE             |                            | 30**       | 35**       |
| c. Education Sector                         | Study of the status and prospects of science education (FY82) and study of industrial training (FY84) in support of proposed sector lending.  | AEPED             | 18                         | -          | 20         |
| d. Housing Finance                          | Analysis of the system of housing finance which will tackle the emerging problems of deteriorating housing conditions in the urban areas, a fall in housing construction and excess capacity in the construction industry in preparation for the proposed housing sector loan expected to be processed in FY85.               | AEPWU             |                            |            | 55         |
| C. CPP                                      |   |                   | 15                         |            | 15         |
| D. Other Economic & Sector Work             |   |                   |                            |            |            |
| 1. SAL (up to Initiating Memo)              |   |                   |                            | 33         | 17         |
| 2. Other                                    |   |                   | 69                         | 70         | 58         |
| <u>Total</u>                                |   |                   | <u>298</u>                 | <u>259</u> | <u>305</u> |
| <b>II. COPD-Managed</b>                     |   |                   |                            |            |            |
| None  |   |                   |                            |            |            |
| <b>III. Memo Items: Research/Studies</b>    |   |                   |                            |            |            |
| A. Korea National Spatial Policies          |   | DED               | 33                         |            |            |
| B. Agriculture Taxation & Pricing           |   | DEDPF             | 24                         | 16         |            |
| C. Acquisition of Technological Capacity /b |   | DEDND             | 59                         | 67         | 35         |
| D. Macroeconomic Modelling                  |   | AEADE             | 14                         | 16         |            |
| E. Sources of Industrial Growth /b          |   | DEDND             | 4                          |            |            |
| F. Export Incentives /b                     |   | DEDND             | 20                         |            |            |
| G. Sources of Growth & Productivity /b      |   | DEDND             | 10                         |            |            |
| <u>Total</u>                                |   |                   | <u>164</u>                 | <u>99</u>  | <u>35</u>  |

/a See task summaries for further details.

/b Korea is one of several countries included.

Note: Economic and Sector Reports for which the Region plans on receiving CPS or DPS support are identified respectively by one or two asterisks

Region: East Asia and Pacific  
 Country: Korea

COUNTRY SUMMARY TABLE 2

SAL-Related Economic and Sector Work Requirements, FY82-84  
 (in staffweeks)

| Report/Task                                    | FY82<br>(Estimate) | FY83<br>(Budget) | FY84<br>(Plan) |
|--|--------------------|------------------|----------------|
| <u>Up to Initiating Memorandum</u>             |                    |                  |                |
| CEM  | 105                | -                | 85             |
| SAL II and III                                 | -                  | 33               | 17             |
| <u>Post-Initiating Memorandum</u>              |                    |                  |                |
| A. "Conventional" Reports/Tasks                | -                  | -                | -              |
| B. Additional Reports/Tasks                    |                    |                  |                |
| Energy   | 18                 | 55               | 24             |
| Industry                                       | 18                 | 55               | 24             |
| Resource mobilization                          | 8                  | 30               | 12             |
| <u>Total</u>                                   | <u>149</u>         | <u>173</u>       | <u>162</u>     |
| <u>Memo:</u> Staffweeks in CESW devoted to SAL | -                  | <u>33</u>        | <u>17</u>      |

April 1982



|   |  |                      |                     |
|---|--|----------------------|---------------------|
| <b>ROUTING SLIP</b>   |  | DATE: 10/15/82       |                     |
| NAME  |  | ROOM NO.             |                     |
| Mr. Humphrey  |  | E1231                |                     |
|   |  |                      |                     |
|   |  |                      |                     |
|   |  |                      |                     |
|   |  |                      |                     |
| APPROPRIATE DISPOSITION   |  | NOTE AND RETURN      |                     |
| APPROVAL  |  | NOTE AND SEND ON     |                     |
| CLEARANCE   |  | PER OUR CONVERSATION |                     |
| COMMENT   |  | PER YOUR REQUEST     |                     |
| FOR ACTION  |  | PREPARE REPLY        |                     |
| INFORMATION   |  | RECOMMENDATION       |                     |
| INITIAL   |  | SIGNATURE            |                     |
| NOTE AND FILE   |  | <b>URGENT</b>        |                     |
| REMARKS:  |  |                      |                     |
| <p>The attached Country Program Paper on Tunisia is scheduled to be discussed at the OPSC meeting on Wednesday, October 20, 1982 at 11:00 a.m. in Room E1208. The meeting will be chaired by Mr. Stern.</p> |  |                      |                     |
| FROM:<br>C. L. Robless  |  | ROOM NO.:<br>D1348   | EXTENSION:<br>75533 |

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## Country Program Paper

TUNISIA

September 16, 1982

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REVIEW DRAFT

September 16, 1982

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COUNTRY PROGRAM PAPER

## TUNISIA

|                                 |      | <u>FY77-81</u> | <u>FY82-86</u> | <u>FY83-87</u>    |
|---------------------------------|------|----------------|----------------|-------------------|
| 1981 population: 6.5 million /a |      |                |                |                   |
| 1981 per capita GNP: \$1420 /a  | IBRD | 579.1<br>===== | 745.5<br>===== | 740.0 /b<br>===== |

Current population  
growth rate: 2.6% p.a.

|                                  |      |      |      |
|----------------------------------|------|------|------|
| No. of Loans                     | 21   | 27   | 27   |
| No. of Loans<br>per million pop. | 3.23 | 4.15 | 4.15 |

Current Exchange Rate:  
TD0.550=US\$ 1.00

Average Lending Per Capita Per Annum: Current (Const. FY82 commitment \$)

|      |             |             |             |
|------|-------------|-------------|-------------|
| IBRD | 17.8 (21.0) | 22.9 (20.4) | 22.8 (19.0) |
|------|-------------|-------------|-------------|

/a Per Capita Income Guidelines for Operational Purposes (FY83), July 1982

/b The FY82-86 lending program proposed in this CPP compares with the program for the same period approved at the last Bank-wide lending program review (September 1981) as follows:

|  | <u>FY82-86 Lending Program</u> |                 | <u>Percentage Change<br/>Proposed/Approved</u> |
|--|--------------------------------|-----------------|--|
|  | <u>Approved</u>                | <u>Proposed</u> |  |
| No. of Loans   | 24                             | 27              | +12.5%   |
| Current \$ million   | 667.0                          | 745.5           | +11.8%   |
| Constant FY82 Commitment                                   | 606.3                          | 662.8           | +9.3%  |
| Per capita per annum<br>(constant FY82 commitment \$) 18.6 |                                | 20.4            | +9.7%  |

## A. INTRODUCTION

1. The last CPP, which was reviewed by Mr. Stern in February 1979, recommended a continuation of the Bank's strategy for Tunisia, focussed on poverty alleviation and employment creation and development of agricultural and industrial production. A lending program of \$550 million for FY80-84 was approved. Following updating of CPP Attachments in April 1980 and September 1981, a lending program of \$667 million was approved for FY82-86.

2. This new CPP draws on the analysis of the Tunisian economy and its underlying growth and investment strategy by an economic mission that visited Tunisia in October 1981 to review the Government's draft Sixth Development Plan (1982-86), and several sector studies undertaken as part of, or in preparation for, the Plan review. It recommends a Bank strategy which would help Tunisia in its transition from a country relying on petroleum exports to finance development to a sectorally balanced post-hydrocarbon era through appropriate changes in economic policies and programs. The proposed Bank ESW and lending programs for FY83-87 would support such changes.

## B. RECENT DEVELOPMENTS

### Political Developments

3. The year 1981 saw a carefully controlled process of liberalization and democratization of public life being implemented. Prior to the November 1981 legislative elections, several political tendencies, ranging from Western-leaning capitalist-democratic to ultra-sectarian Marxist-Leninist or Islam-fundamentalist, were allowed to express themselves through the media, and some were allowed to propose their own candidates against common lists designated by the PSD - Bourguiba's historical Social Democratic Party - and the Trade Unions. In the November elections, however, no opponents to the present Government were elected, a surprising result that raised the question of the PSD's tolerance of opposition, but also indicated the lack of common ground among the opposition groups. Obviously, many PSD members including the Prime Minister are very concerned about post-Bourguibism and the transitional process. The Trade Unions, although far from unified, remain a strong and independent force, despite their political coalition with the ruling party, and unwilling to prevent occasional strikes by their members for higher wages and improved living standards.

4. Tunisia has followed a pragmatic foreign policy designed to elicit support from the West and the moderate Arab countries without antagonizing key countries, in particular its two immediate neighbors. In February 1982, the International Court ruled on the dispute concerning offshore oil and gas fields delineation in the Gabes Gulf, eliminating one major source of contention between Tunisia and Libya. There are also signs that trade and labor migration relations with Libya are gradually resuming. Tunisia also contributed to the recent peace settlement in Lebanon by welcoming a contingent of PLO evacuees.

## Social Developments

5. In a climate of relative political stability, Tunisia has achieved significant progress in rapidly improving the social welfare of its population. The great majority of the population has now access to basic social services such as health, clean water and primary education. The number of people living in absolute poverty was reduced by about one third between 1975 and 1980 to about 13 percent of the population. Two thirds of this improvement, however, was concentrated in urban areas. Income distribution, although less skewed than in other Mediterranean middle-income countries, does not show clear signs of improvement. The Tunisian approach to poverty alleviation has relied on global measures rather than on policies with a more direct distributional impact. Rapidly increasing legal minimum wages and an extensive system of administered prices, combined with a complex distribution of subsidies, have strongly stimulated household consumption in all income brackets. By keeping agricultural producer prices low relative to industrial prices, this approach has strongly favored urban income and consumption and can be singled out as a major cause of the unequal distribution of the improvement in living conditions. Thus, while national per capita consumption increased by 4 percent p.a. in real terms between 1975 and 1980, the corresponding increase in rural per capita consumption was limited to 1.5 percent p.a. Furthermore, combined with a regressive tax system with heavy emphasis on indirect taxes, the price control and subsidies system tends to accentuate distortions in income and wealth distribution by region and social group.

6. Unemployment, estimated at 13 percent of the urban labor force, is a major and intractable problem. Even though non-agricultural employment has increased by a respectable 3 percent p.a., this was not sufficient to prevent a further increase in unemployment. With a total active population increasing at about 3.5 percent p.a. and a growing share of that population (particularly females) seeking employment, the number of new jobs would have to increase by about 4 percent p.a. only to absorb all new job seekers. The problem was somewhat alleviated by a positive net outflow of workers abroad. However, mainly as a result of the economic recession in EEC countries, the net outflow was sharply reduced to an estimated 60,000 in the seventies as compared to about 200,000 in the sixties. Relative factor costs tend to favor capital intensive production, while on the other hand mismatches of skills, education levels and job requirements, as well as regional imbalances on the labor market also represent serious employment constraints.

7. While the objective to eradicate major poverty zones before the year 2000 seems feasible, this would not solve such other critical social issues as unemployment and income distribution. Tunisia's population is increasingly sensitive to distributional issues related to social services and welfare, increases in the cost of living, income and wealth inequalities between social groups and among regions, and examples of conspicuous consumption on the part of the well-to-do. The short but bloody rioting in the southern region of Gafsa in January 1980, the arrest of several fundamentalist Muslim leaders in September 1981, strikes in several public sectors in early 1982, and the increasing assertiveness of the Trade Unions all confirm the existence of social tensions. As a by-product of improving schooling and literacy, the young Tunisian has high aspirations; he is politically involved, eager for



information and participation, and aware of outside developments through a rapidly growing press; at the same time, however, he is also most seriously affected by the unemployment problem.

### Economic Developments

8. By comparative international standards, Tunisia's economic performance during the 1970s has been impressive: it achieved a high rate of growth (about 7 percent p.a.), particularly in the manufacturing sector (about 10 percent p.a.), combined with a rapid improvement in per capita income, which reached \$1,420 in 1981. <sup>1/</sup> During the same period, the Tunisian economy underwent major structural changes. The manufacturing sector diversified and its share in total exports of goods and services increased, even though income from petroleum exports and tourism also increased rapidly. Economic performance also benefitted from substantial terms of trade gains due to the relative price increase of oil exports until 1981, and from improved economic management, as reflected in a gradual shift away from centralized government control toward a more liberal market-oriented economy. In the period of the Fifth Plan (1977-81), the growth of output slowed down, reflecting a disappointing agricultural performance exacerbated by adverse climatic conditions, and, more recently, a decline in petroleum output.

9. Between 1972 and 1981 the terms of trade showed an overall improvement of more than 60 percent, providing a substantial addition to domestic resources. From 1977 to 1981 in particular, net oil revenues of about \$0.5 billion per year helped the country sustain a high rate of investment (30 percent of GDP on average) and a rapid real increase in consumption, which resulted in a resource gap equivalent to 7 percent of GDP on average throughout that period. However, the current account deficit (\$570 million in 1981) was easily financed through foreign direct investment in the petroleum sector and, in roughly equal shares, by official aid and by private loans and export credits. The outstanding and disbursed public guaranteed foreign debt reached 41 percent of GDP while the debt servicing burden in 1981 was equivalent to about 14 percent of the value of exports. <sup>2/</sup>

10. Revenues from the petroleum sector have also strengthened the Government's role in the mobilization of domestic resources, raising its current revenue share from 24 percent of GDP in 1976 to 30 percent in 1981. Thus, despite increasing social expenditures and transfers, budgetary savings averaged over 7 percent of GDP during the Fifth Plan (1977-81), covering as much as two thirds of Government capital expenditures in that period.

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<sup>1/</sup> Atlas methodology.

<sup>2/</sup> In the Fifth Plan (1977-81) these two ratios were projected to reach 47 and 17 percent respectively by 1981, compared to their respective initial level of 26 and 7 percent in 1976.

11. Several matters, however, give cause for some concern. First, the rapid rise in consumption stimulated by real wage increases in excess of productivity gains and a pervasive system of price controls and subsidies has been a drag on national savings. In 1981, household subsidies (including social security and health care) represented 20 percent of current budget expenditure. Second, transfers to public enterprises required another 14 percent to supplement low savings and financing needs. Finally, the 1979/80 boom in oil prices overshadowed the fact that the net contribution of the petroleum sector to the growth of the Tunisian economy is diminishing, while domestic energy consumption, still at a relatively low level <sup>1/</sup>, is increasing very rapidly.

12. More recently, the economy experienced a slowdown, due in major part to the worsening in the international environment. In 1981, real GDP growth was limited to 5 percent, as the result of a sharp drop in petroleum and chemicals output (by 10 and 15 percent, respectively) and of stagnation in the textile sector. This slowdown clearly reflected a deceleration of export growth (2 percent in constant prices compared to an average of 9 percent p.a. from 1976 to 1980). A continued strong expansion of investment activity and a rise in current Government expenditures and private consumption sustained the expansion of domestic demand and consequently of imports. The current account deficit on the balance of payments thus suffered a sizable deterioration, in the order of US\$200 million, i.e. from 4 percent of GDP in 1980 to 8 percent in 1981. Contrary to prior years, however, excess domestic demand was not compensated by improving terms of trade. The substantial further increase in real petroleum prices was barely sufficient to neutralize the adverse terms of trade impact on non-petroleum external trade following a depreciation of the Tunisian dinar vis-à-vis the US dollar by 18 percent between 1980 and 1981.

13. In spite of a continuing weak international economic situation, a further decline in petroleum production, and a shortfall in agricultural output caused by inadequate rainfall, real GDP is expected to grow at 4 percent in 1982. Consumption should remain high, following a 33 percent increase in the legal minimum wage in February 1982 (corresponding to about 20 percent in terms of the total wage bill), but may be checked by significant price adjustments for food, energy, public utilities and transportation and a partial liberalization of price controls. The immediate effect is likely to be an acceleration in domestic inflation, setting the pace for new wage claims. The external payments situation may be expected to suffer a further deterioration as a result of the current decline in world prices for crude oil, phosphate and chemical products.

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<sup>1/</sup> According to the World Development Report 1982, Tunisia's per capita consumption of commercial energy in 1979 stood at about 60 percent of the average level prevailing in middle income developing countries; the rate of increase in energy consumption over the period 1974-79, however, was almost twice as high in Tunisia.

C. NATIONAL DEVELOPMENT OBJECTIVES AND PRIORITIES

Development Issues and Priorities

14. Objectives and priorities in planning Tunisia's development strategy revolve basically around two major issues. Firstly, the main social objective of providing productive employment to any potential job seeker is to be pursued effectively and unrelentingly, while high priority is also to be accorded to reducing inequalities in basic needs coverage and access to the benefits of economic growth among social groups and regions. Secondly, the cost of social policies has to be maintained at an affordable level, given the country's need to reduce its financial dependence on the domestic energy sector, and to prepare the economy for a smooth transition to the post-hydrocarbon era.

15. Achieving a significant measure of progress on both fronts is the major challenge facing the Tunisian policy makers, since these basic objectives are somewhat mutually conflicting. Thus, it would obviously be easier to adjust the economy rapidly to a post-hydrocarbon situation of lower investment rates and generally more rigorous financial management, if the employment effects of such policies could be neglected. This dilemma, calling for a much more effective use of scarce economic resources than in the past, raises a multiplicity of interrelated issues, often of a complex nature. The proposed strategy revolves essentially around five central themes:

- (i) Employment,
- (ii) Regional development,
- (iii) Export promotion,
- (iv) Demand management and domestic resource mobilization, and
- (v) Public sector management and efficiency.

The existence of these issues should not, however, be interpreted as signalling a need for immediate emergency action. The Government has recognized them and agrees that important structural reforms and changes in policies and investment strategy are required to improve the efficiency and competitiveness of the Tunisian economic system.

(i) Employment

16. The 1979 CPP already emphasized unemployment as the most important problem facing the Tunisian economy. The nature and magnitude of the problem are basically still the same but its urgency has increased. In general, Bank analysis has focussed primarily on factors affecting the demand for labor, stressing two major issues. Firstly, past investment patterns showed a bias in favor of capital-intensive technologies. While capital investments remain subsidized through interest rates (which despite recent increases are still below international market levels), high domestic protection, and other investment incentives, labor costs increase rapidly as minimum wages and social charges are raised more rapidly than productivity. Furthermore, wage and price policies which discriminate against agriculture and other traditional activities have contributed to reduce the employment potential

in these sectors, encouraging urban immigration, hence urban unemployment. Secondly, the investment strategy during the Fifth Plan has itself favored large capital-intensive projects, mostly in petroleum and mining and in the public sector. Although reducing the biases against labor-intensive production is a major policy objective, one should recognize that some important factors determining capital intensity are difficult for the Government to control (power of the trade unions, capital-intensive nature of most foreign investment) or are the direct result of Tunisia's natural resource endowment, which requires highly capital-intensive technologies to exploit (phosphates and energy).

17. Thus, to achieve a balance between the need for developing natural resources and the promotion of employment opportunities in small and medium scale private enterprises in agriculture, manufacturing, construction (housing) and other sectors remains an important Government objective. This requires the creation of an appropriate policy environment, including the removal of credit constraints for small enterprises, modification of legislation that discourages labor-using technologies, and introduction of realistic prices, in particular agricultural producer and energy prices. Export promotion, and in general measures to bring about a shift away from overly protected and often highly capital-intensive production for the domestic market towards more labor-intensive exports, is also a major element of the employment-creation strategy.

18. The Tunisian Government is receptive towards the implementation of such a strategy and has already made significant first steps (employment subsidies, small enterprise promotion, increase in interest rates, and some price liberalization), without, however, being able to hold down further wage increases. The Sixth Plan (1982-86) gives high priority to the financing of labor intensive projects in agriculture, medium and small scale industries and tourism in the private sector. At the implementation stage, however, this resetting of priorities is crucially dependent on absorptive capacity for these kinds of projects. Among other measures, the shift towards more skill-intensive industrialization will require substantial investment in formal and non-formal technical training. The Bank's economic and sector work and lending program will as much as possible aim at providing advice and assistance to help reduce potential absorptive capacity bottlenecks, both in the technical sense as well as with regard to the more general policy framework.

19. Tunisia's unemployment problem, however, also has fundamental roots in the structure of labor supply, the working of labor market institutions, and the efficiency of the education and vocational training system. For example, about half of the registered unemployed are young people seeking their first employment, and relatively educated people whose job aspirations often cannot be met. There is also evidence of regional imbalances between supply and demand for labor, as well as shortages of skilled workers in certain occupational categories. Little is known about the employment potential of the so-called informal sector. One might also justify the need for assessing the potential for more systematic labour export policies, to compensate for the disappearance of the traditional European markets. So far, the Bank has devoted relatively less specific attention to the supply and

institutional dimensions of Tunisia's unemployment problem than to the factors affecting job creation. Future economic work should therefore be geared to fill the gap in our understanding of this fundamental issue. A special study to that effect is scheduled for FY83.

(ii) Regional Development

20. The reduction of the recent uneven pace of development between regions is becoming one of the main priorities of the present decade's economic strategy. Repeated political tensions have already alerted the authorities that regional inequalities are becoming a factor of strong discontent among the population. While living conditions have improved over the past decade, the 1980 household survey showed that the percentage of the population living in absolute poverty in rural areas is now higher than in urban areas. The most affected regions are in the center and North-West of the country, where progress in poverty alleviation has been marginal. Lack of natural resources and poor climatic conditions cannot fully explain this evolution; agricultural pricing policies and administrative centralization obviously share the blame. More emphasis is now given to this problem, as reflected by the creation of a new Department for Regional Development; the revised 1981 Investment Code also includes regionalization measures, with Tunis and the coastal zones benefitting from the lowest level of incentives. Before designing a detailed regional policy strategy, studies on regional potentials and prospects are needed. Studies covering the Northwest and Central Tunisia have been initiated with funds included in a Bank loan (FY81-North West Rural Development Project). The ESW program includes a review of regional development issues in FY85, and the lending program will also give priority to projects located in the most backward regions of the country.

(iii) Export Promotion

21. To alleviate the pressure on the economy brought about by the rapid decrease in net oil export earnings, every attempt should be made to improve export performance in other sectors. Although the non-oil export performance has on the whole been relatively satisfactory, the large surplus generated by energy trade concealed the lack of incentives for a more rapid development of exports. Agricultural export performance was impaired in recent years by poor weather conditions, rapidly rising domestic demand, and increasing protection in EEC markets. Traditional Tunisian exports to these markets, such as textiles, olive oil, and other agricultural products are also facing increased competition from new Community members. There is therefore a strong need for diversification of exports, both by product and market. The prospects for increasing exports of manufactures are substantial, arising essentially from the combination of labor supply factors (skills quality and still competitive cost) with Tunisia's locational advantage from the point of view of transport. Electrical and mechanical industries, for which the Bank provided a loan in FY82, have been identified as the potential new export sector. However, current protection and pricing policies are biased against exports; domestic market protection is on average high, due both to tariffs and quantitative import restrictions, as reflected in effective protection rates ranging between 70 and 95 percent for industrial import substitutes.

Regulated prices are set higher than necessary in manufacturing, strongly reducing incentives towards efficiency, competitiveness and quality. Evidence suggests that, overall, Tunisian prices may be as much as 15 to 25 percent higher than world prices, and that this distortion originates almost entirely in the industrial sector. While incentives for foreign off-shore exporting firms seem to be adequate, largely insufficient export incentives are provided to Tunisian firms. Considering the small domestic market in Tunisia, appropriate export promotion policies are a necessary component of an overall industrial strategy aiming at stimulating labor intensive projects, hence employment creation. The incentive system is in the process of being revised, with assistance from the Bank, in view of eliminating fiscal discrimination against export, creating insurance and risk guarantee schemes, and promoting export-trade companies.

22. Productivity gains, expected to derive from increased exposure of Tunisian firms to foreign and domestic competition, would eventually contribute to mitigate the impact of rising wages on unit labor costs. However, given the Government's limited control over labor costs in the short term, Tunisia's international competitive position and the safeguarding of its inherent comparative advantage in labor intensive exports will depend much more on an appropriate exchange rate policy. Petroleum surpluses, and a perhaps too close adherence to the US dollar caused the Tunisian dinar to undergo a significant effective appreciation vis-a-vis the currencies of the major trading partners during the second half of 1980 and early 1981. This tendency was subsequently reversed, following a revision in March 1981. A recent IMF consultation mission to Tunisia recommended to maintain such a flexible approach in future, on the basis of a close monitoring of changes in the purchasing power of the dinar relative to the currencies of Tunisia's main trading and financial partners.

(iv) Demand management and domestic resource mobilization

23. The need to sustain a relatively high investment rate for employment creation, combined with the expected decline in petroleum revenues, set stringent requirements for domestic demand management and resource mobilization policies. Consumption growth can no longer be allowed to exceed the expansion in domestic production, as occurred during most of the 1970s and more recently. Stimulating domestic savings, however, will not be an easy task considering current social pressures for higher living standards. This is a fortiori true since hydrocarbon production, the most profitable and easily taxable economic activity in the past, is likely to slow down, while expected new growth sectors will contribute comparatively less to domestic savings. The limited potential for restrictive wage and salary policies, at least in the short term, has already been emphasized above. The problem is aggravated by the unemployment situation that erodes the savings capacity of households, where the rapidly increasing earnings of those who are actually employed, have to be shared among a large and increasing number of unemployed family members.

24. A first step in any consumption reducing strategy is therefore the gradual elimination of across-the-board consumer subsidies, that not only absorb potential public savings but also encourage overconsumption and waste.

In 1981, consumer subsidies accounted for as much as 17 percent of total current Government outlays, corresponding to about two-thirds of the country's resource gap. This across-the-board subsidization of consumer goods and services is an inefficient tool for income redistribution and poverty alleviation, since it also benefits higher income consumers and tends to discriminate against rural households. The Tunisian authorities, partly as a result of Bank recommendations, are conscious of the heavy burden that this policy imposes on the budget. Prices of a number of essential commodities such as meat, butter, milk, bran, barley, cement, tobacco, petroleum products as well as tariffs of public utilities such as water and transport were recently increased, and a second round of price adjustments is being planned for the fall of 1982. The elimination of consumer subsidies, and in general the liberalization of the pricing system, will have to be accompanied by more and better targeted direct help to the poor, so as to minimize potential social repercussions.

25. Tax policies could be used more systematically to influence consumption. While the overall tax burden is already very high and would seem difficult to increase further without encouraging already widespread tax evasion, ways and means are presently being explored to remodel the tax system, partly in view of curbing consumption. A relevant issue, in this context, is the decline in revenue from direct taxation in recent years, reflecting large exemptions, a weak tax administration and tax evasion. Concurrently there has been increased reliance on revenue from indirect taxation, particularly of rapidly increasing imports. However, the difficulties in implementing any drastic fiscal reform must be recognized; the overall inefficiency of the tax administration is stressed in a recent confidential IMF assessment of the Tunisian fiscal regime. Tax reform, for which IMF technical assistance has been requested, would focus particularly on income and corporate profit taxes, with the intention of improving tax collection, reducing certain rates and expanding the tax base. Furthermore, a general value-added tax would be introduced in stages.

26. Nominal interest rates are relatively low, reflecting past specific factors, such as the lower rate of domestic relative to international inflation (achieved at the cost of heavy budgetary subsidies), as well as the relative abundance of financial resources both from domestic and foreign origin, the latter at favorable terms. As these factors are gradually vanishing, interest rate levels will have to be raised in order to stimulate private savings and ensure an efficient allocation of scarcer resources. Raising lending rates would also contribute to improving the relation between the cost of labor and capital, thus stimulating labor intensive investment. The complex interest rate structure applied in Tunisia needs to be simplified to increase the effectiveness of interest rate policies.

27. Important policy measures to stimulate savings would also include the creation of more attractive investment opportunities for private investors, such as better housing schemes, an attractive Government bonds policy, a well functioning stock exchange, etc. Our economic work will focus on domestic resource mobilization issues, and specifically on financial sector organization and policy (FY84).

(v) Public Sector Management and Efficiency

28. Improving the performance of public enterprises is another important element of domestic resource management. Public enterprises play an important role in the Tunisian economy, producing about one fifth of total GDP and absorbing close to 40 percent of total investments. Their savings performance, however, remains unsatisfactory. A substantial part of current subsidies was in fact required to cover public-enterprise deficits, and a large share of their investments have to be financed by the Government. Part of the problem is poor management, but the Government's tariff and price policies, which do not allow these enterprises to charge remunerative prices, are probably even more relevant factors. With the increased diversification of the economy and the parallel increasing complexity of economic management, the Tunisian authorities are conscious that a reform of the existing structure of government participation in productive activities is necessary. To reduce the Government's involvement, five specialized development banks have been created since 1980, to finance and take part in new and existing enterprises. The structure and operations of these new public institutions will have to be closely monitored, to ensure responsible portfolio selection and management procedures. The Tunisian Government remains nevertheless strongly committed to its direct participation in the productive process. It would therefore be a self-defeating policy for the Bank to ignore this political factor. Our role should thus be limited to helping the Government introduce greater efficiency in the public enterprise sector, through financial rehabilitation, a more active role by the banking system in monitoring the financial situation of enterprises, and more flexible wage and price policies. The Bank, through its lending program, has already played a useful role in the financial rehabilitation and efficiency improvement of a number of public enterprises (Port Authority, Water Supply, SOGITEX textile, and the SOFOMECA foundry rehabilitation project currently under preparation). Two economic missions are scheduled in FY84 and FY86 to look into the general issues at the enterprise level and at the sectoral level.

Implementation of economic reforms

29. As mentioned earlier, progress towards the basic objectives of economic policy requires a multiplicity of specific and wide ranging measures to be implemented. However, in view of the highly interdependent nature of these measures, as well as their potential social and political repercussions, the appropriate timing and intensity of their implementation deserves special consideration. Particularly, the difficult arbitrage between wages on the one hand, and prices, subsidies and protection on the other hand, is a complex issue that requires a cautious approach on the part of the Bank. For one thing, one has to acknowledge the fact that the Tunisian Government faces strong political and social constraints to the implementation of the required measures, particularly with regard to real wages and the terms of trade between agriculture and industry. The pace of economic reform thus depends directly on the intensity of such constraints. In particular, the political alliance between the ruling PSD and the labor unions is a delicate equilibrium that precludes strong direct Government action in the area of real labor income. The Tunisian political regime has a democratic style based on social consensus, which also precludes strong measures in a period when, it must be underlined, there is no immediate economic crisis and a delicate transition



towards greater political democracy is underway. These circumstances thus impose a "gradualist" approach to economic reforms. The Bank should support such an approach, but at the same time, closely monitor its progressive implementation (para. 51).

#### The Sixth Plan (1982-86)

30. The Tunisian authorities are in the process of formulating a new economic strategy in the context of the Sixth Development Plan (1982-86), aimed at adjusting the economy to declining oil revenues, while preserving a sustainable domestic and external equilibrium. A large Bank economic mission visited Tunisia in October 1981, for a detailed sector-by-sector analysis of the investment program and accompanying policy measures envisaged in the Plan. This offered the Bank an excellent opportunity to strengthen the policy dialogue with the Tunisian authorities who were seeking advice on a number of specific sectoral as well as macro-economic policy issues.

31. The Plan envisages an annual growth of 6.3 percent between 1981 and 1986 (Table 1), with a major stimulus coming from the manufacturing sector, while production of hydrocarbons is projected to increase marginally. The growth in real consumption is targeted to slow down somewhat, while the overall level of investment is expected to reach US\$ 16 billion, representing a 16 percent increase over the volume achieved under the previous Plan. As a ratio to nominal GDP, however, investment would decline from 31 percent in 1981 to about 23 percent in 1986. Reflecting these trends, the resource gap in nominal terms would decrease to 4.5 percent of GDP in 1986 compared to 8.1 percent in 1981.

32. The investment program implies a major shift towards labor-intensive projects in agriculture, small and medium scale industries, and tourism, with emphasis on the private sector. Labor-intensive industries are thus targeted to receive one third of planned investments, as compared to about one fifth in the previous Plan. The bulk of capital-intensive investment (over 40 percent) is to be absorbed by the energy sector. In terms of investment allocation the Plan gives high priority to agriculture (17 percent of total investment compared to 14 percent achieved during the previous Plan), manufacturing (22 percent versus 18 percent during the last Plan), and tourism (6 versus 2 percent). The manufacturing sector is viewed as the main vehicle for employment creation, export promotion and import substitution. Together with the need to increase productivity, the Plan stresses a more intensive orientation of the manufacturing sector towards production of intermediate inputs, and of exports. Within the manufacturing sector, mechanical and electrical industries are singled out in particular for expansion and strengthening. Targeted to absorb more than one quarter of total manufacturing investment, this priority subsector sees a doubling of its allocation compared to the last Plan.

33. With regard to employment the Sixth Plan basically maintains the same target as the previous Plan, namely to absorb most of the increase in the labor force. This rather ambitious objective, implying the creation of close to 60,000 jobs on average per year compared to 45,000 during the last Plan, would nevertheless not allow for any significant reduction in the current level of unemployment. Finding jobs for its unemployed labor, and its important political and social ramifications, will thus remain a crucial issue for the Government.

34. The achievement of the Plan's objectives will depend largely on the success of the intended reorientation of investment, on the realization of efficiency gains, particularly in agriculture and manufacturing, and on a significant improvement in the savings performance of the private sector; the overriding constraint, however, will be to curb domestic demand for imports by simultaneously decreasing domestic demand for non-substitutable final goods and by promoting efficient domestic production of substitutable intermediate and equipment goods (see Attachment III, para. 5). The Bank review of the Plan does not yield any major disagreements with its overall development strategy. The major difficulties faced by the Tunisian planners do not concern the setting of objectives and priorities, but the choice and timing of the required policy measures. The complexity and variety of these measures will tax the Government's administrative and managing capacities to its very limit.

#### The Outlook

35. The factors that so greatly benefitted the economy during 1976-81 (terms of trade and sizeable net exports of energy) can no longer be expected to prevail in the years to come. In view of the uncertainty regarding the prospects for domestic energy production, we agree with the Tunisian planners on using a conservative assumption. Exploiting new and existing gas fields and secondary oil fields will allow Tunisia to avoid becoming a net energy importer until the end of the decade. External trade projections indicate a rapid increase in external capital requirements, due in part to projected deteriorating world commodity prices. The long-term projections beyond 1987 suggest that Tunisia should not only control domestic demand, and slow down imports, but also reduce economic growth below past trends. In view of Tunisia's currently favorable debt position, the medium-term prospects are for manageable debt service and continued creditworthiness. In the longer term,

Table 1: MACRO-ECONOMIC INDICATORS AND TRENDS

|                             | Current                    |   |                        |                  |         |         |
|-----------------------------|----------------------------|---|------------------------|------------------|---------|---------|
|                             | Level 1981<br>(\$ million) | Actual<br>1976-81   | Plan Target<br>1981-86 | Bank Projections |         |         |
|                             |                            |   |                        | 1981-86          | 1982-87 | 1986-91 |
| <u>National Accounts</u>    | <u>Current Prices</u>      | <u>Average annual growth rates<br/>(in percent; constant 1980 prices)</u> |                        |                  |         |         |
| GDP                         | 8,224                      | 6.1   | 6.3                    | 5.7              | 6.0     | 4.9     |
| Gross investment            | 2,539                      | 7.7   | -0.2                   | 1.4              | 3.1     | 4.2     |
| Final Consumption           | 6,351                      | 7.5   | 6.9                    | 5.8              | 5.4     | 4.0     |
| Exports, inc. NFS           | 3,475                      | 7.6   | 5.6                    | 8.2              | 9.0     | 6.1     |
| Imports, inc. NFS           | 4,141                      | 11.2  | 2.7                    | 5.5              | 6.0     | 4.0     |
| <u>Balance of Payments</u>  |                            | <u>Annual averages<br/>(\$ million; current)</u>                          |                        |                  |         |         |
| Resource gap                | 666                        | 519   | 818                    | 1,055            | 1,087   | 1,063   |
| Workers' remittances, gross | 344                        | 264   | 487                    | 471              | 518     | 759     |
| Current Account             | 571                        | 462   | 772                    | 1,026            | 1,094   | 1,262   |
| MLT loan disbursements      | 515                        | 598   | 1,072                  | 1,219            | 1,389   | 2,004   |

Source: Attachment 3 and Sixth Plan.

prospects will depend on the policy changes that are in the process of being implemented. In particular, failure to maintain a low level of external indebtedness in the next few years, to restructure domestic savings mobilization in line with the declining contribution of the energy sector, and to promote, non-energy exports would eventually impose serious financial constraints on future economic development. Our projections are summarized in Table 1.

36. Our projections thus imply a clear "downside" risk, particularly in the longer term, by assuming the timely introduction and successful implementation of the policy measures detailed in the preceding sections. The Tunisian authorities have begun to introduce measures in these respects; and the Bank will support their implementation. However, we do not share the Tunisian assessment of the potential for reducing current import propensities (see Attachment III, p. 6). Our projections therefore indicate that, to maintain the resource gap within prudent limits, GDP growth would have to be somewhat below the 6.3 percent average projected in the Plan. The economy is nevertheless basically sound and should be able to grow at an average annual rate of about 6 percent during 1982-87 and 5 percent afterwards. Agricultural production is expected to benefit from higher producer prices and better extension and research services. In spite of the slowdown in energy production, industrial growth of about 7 percent is considered feasible in view of the strong investment activity in recent years, especially in electrical and mechanical industries, textile and chemical industries. In services, we expect a 6.0 percent growth during the Plan, reflecting additional employment in administration to meet requirements in primary education and preventive health, and good prospects for tourism and transportation. On the demand side, the major growth impact is expected to come from public consumption, which is projected to increase by more than 8 percent p.a. in real terms. Fixed investment would decrease from 30 percent of GDP on average for 1976-81 to 26 percent over the next five years. This nevertheless represents a 16 percent increase in real terms between the two Plan periods. With increased export orientation and import substitution capacity, we expect both the resource gap and the current account deficit not to exceed \$1.1 billion throughout the Plan period (\$0.5 billion in 1981). Exports should play a comparatively important role in overall GDP growth and will be of key importance in maintaining creditworthiness.

#### D. EXTERNAL CAPITAL REQUIREMENTS

37. The public foreign debt outstanding and disbursed at the end of 1981 is estimated at \$3.4 billion, equivalent to about 41 percent of GDP, and according to preliminary estimates it should have reached about \$4 billion at the end of 1982. The relative burden of debt servicing remained below 15 percent of total export earnings throughout the 1970s and reached 14 percent in 1981. This decline was mainly due to sharp increases in export earnings resulting largely from the 1973/74 and 1979/80 boom in oil prices. In addition, cautious debt management policies were followed by the Tunisian authorities throughout the period. During the 1977-80 period, foreign loan commitments averaged about \$750 million per annum, 57 percent of which in the

form of official development assistance (ODA) and about one-third on concessional terms. Two-third of ODA commitments came from bilateral sources, (chiefly France, the Federal Republic of Germany, USA, and some oil-surplus countries), about 24 percent from the Bank Group, and some 11 percent from other multilateral sources. Overall borrowing terms were favorable, averaging 7.1 percent interest and 15.5 years maturity, including a grace period of 4 years.

38. The current account recorded a deficit of \$570 million in 1981 and is projected to grow to about \$1.2 billion in 1987 (balance of payments projections are outlined in Attachment III.) To cover the projected current account deficit, amortize the foreign debt and maintain reserves at a level equivalent to 1.5 months of imports, total gross external capital requirements during 1983-87 are projected at \$8.1 billion at present dollar exchange rates. This would bring external financing to a total about two times larger than during the preceding five years. As direct foreign investment is expected to total \$1.8 billion, external borrowing requirements would amount to \$6.9 billions (details on the expected sources of projected foreign financing are included in Table 2). Leaving aside the possibility of major oil and gas discoveries, and assuming oil prices to increase by 3 percent p.a. in real terms after 1983, the external debt service burden could be maintained between 13 and 14 percent of total export revenues through 1987.

39. Foreign investments were small during most of the 1970s, but have gained momentum during the last three years, in line with increased activities in the oil sector and new incentives offered to foreign investors in manufacturing. Such investments have increased from an average of \$100 million a year in the late 1970's to about \$355 million in 1981, and have been equivalent to 8 percent of total investments throughout 1977-81. The CPP growth scenario assumes that about 12 percent of total investment could be financed by direct foreign investment, equivalent to an annual inflow of \$360 million. The newly created Tuniso-foreign Development Banks are expected to play a significant role in this context.

40. In conclusion, the outlook regarding Tunisia's external capital requirements can be considered manageable in the medium term. In the longer term, however, much will depend on the policy changes to be initiated during the next few years, and on developments in the hydrocarbon sector. Considering its long record of prudent and skillful balance-of-payments and external debt management, there are good grounds to assume that Tunisia will implement the necessary policy changes, and continue to be creditworthy for a continued high volume of Bank lending.

#### E. PROGRESS TOWARD PRIOR GOALS

41. Since the early 1970s, the Bank's strategy in assisting Tunisia focussed on supporting Government efforts in employment creation, poverty alleviation, and more efficient resource use. This strategy was followed through an intensive dialogue with the Government on economic and sector policies and an active lending program. The 1979 CPP review endorsed the continuation of this strategy stressing, moreover, the need for the Government to improve its project preparation capabilities and for the Bank to focus on the country's creditworthiness, its employment and income distribution and export policies.

Table 2: LOAN DISBURSEMENTS, DEBT AND BANK EXPOSURE RATIOS

|                                   | Actuals |       |       | Projections |       |        |
|-----------------------------------|---------|-------|-------|-------------|-------|--------|
|                                   | 1979    | 1980  | 1981  | 1982        | 1986  | 1991   |
| <u>Disbursements</u> (\$ million) | 644     | 535   | 515   | 843         | 1485  | 2247   |
| International Organizations       | 70      | 94    | 84    | 215         | 230   | 306    |
| Governments                       | 196     | 250   | 314   | 333         | 453   | 860    |
| Suppliers credit                  | 65      | 25    | 24    | 20          | 42    | 118    |
| Financial credit                  | 313     | 166   | 93    | 275         | 760   | 963    |
| <u>Debt and Debt Service</u>      |         |       |       |             |       |        |
| (\$ million)                      |         |       |       |             |       |        |
| Total debt outstanding            | 2,996   | 3,189 | 3,371 | 4,024       | 7,361 | 12,612 |
| - in % of GDP                     | 41.5    | 36.6  | 41.0  | 43.2        | 45.2  | 41.4   |
| Debt service                      | 309     | 433   | 548   | 568         | 991   | 2,037  |
| - in % of exports                 | 9.8     | 10.9  | 13.9  | 13.8        | 13.4  | 14.9   |
| <u>Terms</u>                      |         |       |       |             |       |        |
| Average interest rate (%)         | 7.1     | 7.1   | 6.7   | 7.2         | 8.2   | 7.4    |
| Average maturity (years)          | 15.8    | 17.3  | 19.6  | 16.7        | 14.5  | 15.0   |
| Average grace (years)             | 4.4     | 5.1   | 5.1   | 4.3         | 3.9   | 3.9    |
| <u>Bank exposure (%) of</u>       |         |       |       |             |       |        |
| - Disbursements                   | 8.6     | 9.5   | 10.4  | 9.9         | 9.9   | 7.8    |
| - Debt outstanding                | 7.7     | 8.4   | 9.0   | 8.6         | 9.9   | 8.3    |
| - Debt service                    | 10.4    | 8.5   | 7.9   | 8.3         | 13.2  | 11.2   |

Source: Attachments 1B and 3.

42. During FY79-81, the Bank increased its lending program to Tunisia to about twice the level of the previous three years and about 50 percent above the volume programmed in the 1979 CPP (table 3). While lending for agriculture, urban and social development was on target, both in terms of numbers of projects and lending volume, lending for industry and particularly for infrastructure exceeded the forecasts. The expanded program absorbed additional funds allocated to Tunisia for high priority projects which we had carried in the reserve program and which were ready for implementation, chiefly in gas and power distribution, helping the country tap the inter-continental Algeria-Italy gas pipeline and expand its electricity network in rural areas. The additional project in industry (textiles) is helping to rehabilitate and expand a public textile company, both to meet increased domestic demand and expand export sales.

43. While the sectoral distribution of lending in the 1979 CPP thus did not materialize (agriculture and urban and social development together received just over half of total lending as against 73 percent forecast), the strategic objective of focusing Bank lending towards poverty alleviation and employment promotion by allocating 50 to 60 percent of the program for these purposes was met. More than 60 percent of Bank funds were allocated to

projects benefitting predominantly low-income groups, mostly in rural areas (population and health, water supply, electrification, agricultural projects), or having a beneficial impact on employment (vocational training and small-scale industries projects).

Table 3: COMMITMENTS UNDER THE BANK PROGRAM

|   | <u>FY76-78</u> | <u>FY79-81</u>          |              | <u>FY82-84</u>             |                                      |
|---|----------------|-------------------------|--------------|----------------------------|--------------------------------------|
|   | Actual         | Proposed in<br>1979 CPP | Actual       | Proposed in<br>last CPP /1 | Proposed in<br>current<br>Program /2 |
| <u>Number of Projects</u>                 |                |                         |              |                            |                                      |
| Agriculture                               | 2              | 4                       | 4            | 5                          | 6 /2                                 |
| Industry                                  | 2              | 1                       | 2            | 3                          | 2                                    |
| Urban and<br>Social Dev't                 | 2              | 5                       | 5            | 4                          | 5                                    |
| Infrastructure                            | <u>3</u>       | <u>2</u>                | <u>4</u>     | <u>2</u>                   | <u>3</u>                             |
| Total Number of Project                   | 9              | 12                      | 15           | 14                         | 16                                   |
| <u>Amount of Lending<br/>(\$ million)</u> |                |                         |              |                            |                                      |
| Agriculture                               | 54.0           | 100.0                   | 107.5        | 161.0                      | 158.0 /2                             |
| Industry                                  | 55.0           | 20.0                    | 48.6         | 78.0                       | 45.5                                 |
| Urban and<br>Social Dev't                 | 29.9           | 100.0                   | 109.0        | 111.0                      | 141.5                                |
| Infrastructure                            | <u>74.5</u>    | <u>55.0</u>             | <u>157.5</u> | <u>70.0</u>                | <u>100.5</u>                         |
| Total Amount of Lending                   | 213.4          | 275.0                   | 422.6        | 420.0                      | 445.5                                |

/1 CPP Updating Memorandum of September 23, 1981

/2 Incl. \$ 4.5 million Technical Assistance loan in FY83 which will benefit also industry and energy.

44. The emphasis in the Bank's lending on employment promotion and poverty alleviation was supported by a special Bank report ("Tunisia - Social Aspects of Development", no. 2950-TUN, June 18, 1980) which analyses the effects of the Government's social services, income policies and regional and rural development programs on low-income groups, and recommends measures to eradicate absolute poverty in Tunisia by the year 2000 by improving the relevant policies and targetting social programs more directly to the poverty groups. Issues of employment creation and poverty alleviation were also discussed in several sector studies, notably on Electrical and Mechanical Industries (report no. 2666-TUN, June 5, 1980) and on agriculture, industry and urban housing, the latter as parts of the review of the Sixth Development Plan.
45. The effects of the expected decline in oil exports, and the concomitant change for Tunisia from a net oil exporter to a net importer by the end of the decade, on the balance of payments and Tunisia's long-term credit-worthiness were first analyzed in a Country Economic Memorandum (no.3399-TUN, September 15, 1981). This issue is being further elaborated on in the context of the Plan review, as well as in the ESW program scheduled for FY83.
46. As regards Tunisia's export policies and performance, the Bank has entered into an active dialogue with the Government through a number of high-level advisory missions and the preparation of a study on effective protection which will be financed under the Electrical and Mechanical Industries project (FY82). In addition, several recent or future loans focus on export markets (Textile Rehabilitation - FY81; Medherda/Nebhana Irrigation - FY82) and institutions (Technical Assistance - FY83).
47. As regards the country's project preparation and development administration capacity, the Government has made some progress through strengthening the planning departments of the Ministries of Agriculture and Education and by establishing a new department in the Ministry of Planning and Finance to coordinate and monitor project preparation and follow-up. The latter department, which was established in 1981 and is headed by a high-level official, has already become an important counterpart for the Bank in resolving issues and problems. The Government's capacity to identify and prepare projects will be further strengthened by the proposed Technical Assistance projects included in the lending program for FY83 and FY85. These represent an innovative approach by not only preparing the ground for increasing the number and improving the quality of development projects, but also by initiating policy changes in key areas to help the Tunisian economy in its transition to the post-hydrocarbon stage.
48. The increasing complexity of many of the projects, which are often being handled by new institutions, tended to lengthen the period between Bank commitment and effectiveness, from an average of 265 days in FY77 to 313 days in FY81. In addition, as can be expected for a rapidly expanding portfolio, disbursements did not keep pace with the increase in commitments, and the disbursement rate declined in 1980 and 1981. Following the stabilization of loan commitments, the disbursement rate started again to improve in 1982 (table 4). This trend is expected to continue, also as a result of discussions between the new department in the Ministry of Planning and Finance mentioned above and the Bank over the past 12 months regarding the improvement of project processing and implementation.

Table 4: IBRD/IDA Disbursements  
(Expressed in millions of U. S. dollars)

|   | F I S C A L Y E A R |        |        |        |        |        |
|---|---------------------|--------|--------|--------|--------|--------|
|   | 1977                | 1978   | 1979   | 1980   | 1981   | 1982   |
| 1. Undisbursed balance<br>at July 1 /1                          | 187.92              | 168.93 | 223.37 | 277.84 | 350.79 | 377.44 |
| 2. Commitments during F/Y                                       | 94.30               | 67.00  | 99.00  | 171.00 | 152.60 | 160.50 |
| 3. Total disbursed<br>during F/Y                                | 50.29               | 43.52  | 46.87  | 58.91  | 58.98  | 67.80  |
| 4. Disbursement Rate<br>3-1 = %                                 | 26.76               | 25.76  | 20.98  | 21.20  | 16.81  | 17.96  |
| 5. Comparators (%)  |                     |        |        |        |        |        |
| (a) Disbursement Rate<br>for total of loans<br>in the Region /2 | 21.01               | 20.85  | 21.79  | 21.39  | 21.25  | 22.71  |
| (b) Bank-wide IBRD/IDA<br>average disbursement<br>rate /2       | 24.53               | 21.19  | 21.73  | 21.31  | 21.47  | 23.93  |
| (c) Selected comparators:                                       |                     |        |        |        |        |        |
| Malaysia  | 12.16               | 12.88  | 18.94  | 13.50  | 18.50  | 19.93  |
| Cameroon  | 31.66               | 44.10  | 29.31  | 36.18  | 18.99  | 20.83  |
| Ecuador   | 7.72                | 14.48  | 24.90  | 26.13  | 28.19  | 24.76  |

/1 Undisbursed balance includes signed but not effective loans and credits for all computations.

/2 Excludes IDA 6 credits.

#### F. BANK STRATEGY

49 . The analysis of the long-term prospects and of the main constraints of the Tunisian economy in Parts A through D has highlighted the Government's development objectives for the next decade: employment creation, export promotion, regional development, domestic resource mobilization and productivity increases particularly in public enterprises. The recent Bank review of the Sixth Development Plan has shown that these objectives are appropriate, but that the choice and timing of the required policy measures is the major issue facing the Tunisian planners. The Bank strategy for Tunisia is therefore aimed at supporting the Government in pursuing these objectives. In that connection, the Bank's views on the required economic reforms and policy measures have been recently summarized in a memorandum addressed to the Tunisian Minister of Planning and Finance. The prospects for the Bank to play an important role in Tunisia's development are better than in most of our member countries. Particularly encouraging is the fruitful dialogue between the Bank and the Government which has developed over the past few years on all important economic and sectoral policy issues,



and the receptiveness of the Government for Bank advice, e.g.: (i) agricultural producers prices were recently increased as were energy prices (the latter even more rapidly than foreseen in the FY80 Gas Distribution project); (ii) there has been some liberalization of price controls on industrial products; (iii) the investment code was revised to benefit employment creation as well as underdeveloped regions; (iv) the management and financial performance of a number of public enterprises has improved in connection with Bank lending (Port Authority, Water Supply, SOGITEX textile); and (v) the Bank's report on "Social Aspects of Development" in 1980 has contributed to create an awareness of social inequalities and to the acceptance of basic needs concepts. In general, Bank advice has been notably productive if rendered in connection with concrete project and sector lending operations. As regards ESW, the Government has recently shown an increasing interest in taking an active role in the Bank's work. This allowed us to increase the quality and scope of the work, hence the likelihood of its recommendations being accepted and implemented by the Government.

50. The Bank's ESW (Attachment IV) and lending programs (Attachment I) focus on programs and policies designed to help the Tunisian economy achieve a smooth transition to its post-hydrocarbon stage, when it will no longer be able to finance development through net energy exports. This transition will necessitate structural changes and policy reforms which the ESW and lending programs will help prepare and support. The central theme of these policy reforms is the need for an appropriate system of economic signals and incentives (prices, taxes, wages, interest rates, exchange rates, and subsidies) to permit an efficient allocation of resources, relying more on the market mechanism and less on direct Government intervention and controls.

51. In spite of repeated Government pronouncements over the past two years favoring such a change, the speed with which it can be implemented is constrained by divergent ideological views as well as by likely social repercussions. We should, therefore, remain sensitive to these constraints in our discussions and negotiations with the Government. At the same time, however, progress towards implementation of the required economic reforms will have to be closely monitored. To that effect, realistic expectations regarding policy achievements need to be formulated and relevant performance criteria developed. In the first place, there should be steady progress towards liberalization of the pricing mechanism and elimination of the system of across-the-board consumer subsidies; progress in this area is of the highest priority since it would simultaneously benefit all the economic policy objectives listed in section C. Secondly, real interest rates should undergo a gradual upward adjustment to more closely reflect the opportunity cost of capital, in view of promoting domestic savings as well as a more efficient allocation of these resources, notably towards more labor-intensive production. Our ESW, in particular a study of the financial system proposed for FY84, will address this issue. Thirdly, further progress should be expected in reducing the effective protection of domestic industries, through harmonization of import duties and elimination of controls as a major element of export promotion strategy which, indirectly, will also contribute to promote employment. However, it should also be taken into account that a wide

array of other, more specific policies has been identified for implementation. Performance evaluation should therefore not only take place at the level of selected priority policies, but also, wherever feasible, at the level of the policy objectives. A number of key indicators is thus to be selected for purpose of performance evaluation, e.g.: (i) producer prices in agriculture relative to industry, to monitor progress towards reducing the income bias against agricultural activities; (ii) relative capital/labor cost, to assess progress towards reducing the current bias against labor-intensive production; and (iii) prices and unit labor cost relative to international standards or, initially, the overall real effective exchange rate, to monitor industrial competitiveness and progress towards export promotion. Our economic work will be geared to the development and further refining of such performance criteria.

52. The following paragraphs outline the Bank strategy in the main sectors. The strategy involves the use of ESW and lending programs as well as technical assistance. Projects included in the lending program have been selected to satisfy the following general criteria: labor-intensive and export-oriented activities; development of backward regions (North-West, Center-West and South); conservation and development of energy resources; and mobilizing external funds through cofinancing of major revenue-generating projects. Within reasonable limits, reflecting the need for gradualism, the size and nature of our lending program will be directly related to performance in the area of policy implementation and progress towards achievement of the identified objectives.

53. Agriculture. The recent sector survey identified the fundamental policy changes required to enable the sector to achieve the ambitious investment and output targets envisaged in the Sixth Development Plan. Those include raising producer prices to reverse the past deterioration in the terms of trade between agricultural and non-agricultural commodities, reducing input subsidies, implementing land reform legislation and improving agricultural institutions and policies such as for research, extension, credit, input supply and marketing. The survey was carried out jointly with the Government, and many of its policy recommendations have been included as the Government's objectives in the Sixth Development Plan. The Technical Assistance project (FY83) includes funds for the preparation of a number of programs and projects as well as policy changes in these areas. Agriculture and rural development would occupy the most important place in the proposed lending program, absorbing about one third of the proposed lending amount during the five-year period (Table 3). The program in this sector would focus on introducing the policy changes mentioned above, both through providing subsector loans, which would strengthen national institutions and programs for key sector services (research, extension, credit, marketing, input supply), as well as through financing projects which would focus on the underdeveloped regions (North-West, Center and South). The regional emphasis would be in line with the Government objective to make life in rural areas more attractive and stem migration to urban areas. Reserve projects in soil conservation/forestry, input supply/mechanization and agricultural credit would back up the program in this sector. The latter project would be included in the program provided problems under current projects (competition of Bank funds with a subsidized credit program, too much centralization in decision making) can be resolved.

We are discussing these questions with the Government and BNT in connection with the ongoing Third Agricultural Credit project and Government proposals to create a new agricultural development bank, whose precise role and effect on current institutional arrangements is yet to be defined. In this regard, we would especially focus on assuring that the new institutional arrangements would provide for adequate access to credit by small farmers.

54. Manufacturing and Mining. These sectors will have to play a crucial role in helping the Government achieve its employment creation and export diversification objectives. 1/ Several policy-oriented studies are underway or envisaged, to identify and analyse the issues involved and prepare bankable projects in these sectors. A strategy paper on the foundry sub-sector, following up on recommendations contained in the Electro-Mechanical Industries Survey (Report No. 2666-TUN of June 4, 1980) was finalized and discussed with the Government in early 1982, and is serving as a basis for a Foundry Rehabilitation Project in FY83. In the context of the Electrical and Mechanical Industries project (FY82), the Government undertook to ensure that prices of locally produced intermediate and capital goods remain in line with comparable foreign prices. In addition, the project includes a study on effective protection which will help identify manufacturing subsectors and products in which Tunisia has a comparative advantage and establish a framework for their development. Specific protection policies to the extent identified by the effective protection study will be discussed in the context of the preparation of a second public sector textile industry project, also scheduled for FY85s. Special missions on employment and incentives will review the Government's policy framework regarding labor-intensive, particularly small-scale industries which would be followed by policy discussions in the context of the preparation of a small-scale industries project scheduled for FY85s. A survey on the construction material industries in FY84 will review the capacity of this subsector to meet the demand particularly in view of the expected rapid growth in housing construction, and may lead to a project for the subsector (FY86R).

55. As regards the need for export diversification, the Technical Assistance project (FY83) contains studies to review the institutional and incentive framework for export promotion and to identify specific projects for which export markets can be found. A project financing export industries is scheduled for FY85, during the preparation of which specific policy measures to promote export industries would be discussed with the Government.

56. Given the importance of mining in Tunisia's exports a continued Bank involvement in the sector is envisaged through a loan in FY86s. This could be either for phosphate or potash development. Bank assistance for a phosphate project could follow a previous involvement in the Gafsa Phosphate Company (FY74) but would be subject to a substantial improvement in the management of the company and in its responsiveness to Bank advice particularly as regards its investment program. A potash project could involve the development of a new mine, either South of the Chott Djerid or near Zarzis on the Gulf of Gabes. It is expected that Bank lending in the sector would assist Tunisia in raising substantial cofinancing from other external sources.

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1/ Preparation of an Industry Sector Strategy Paper has been initiated.

57. Energy. Given the crucial importance of the development and use of energy resources to the country's long-term balance-of-payments outlook, ESW on, and lending for, energy will continue to constitute a major part of the Bank's operations in Tunisia. A sector memorandum produced in the context of the FY82 Plan Review identified specific issues. The main issues are the need to economize on available resources through appropriate conservation and pricing policies, and the optimal development of the various energy resources, including non-conventional resources, such as geothermal, aeolian and solar, with due regard to domestic demand and balance-of-payments considerations. As a result of discussions on energy pricing in the context of the negotiations on the Second Gas Pipeline project (FY80), the Government has already introduced substantial price increase for most hydrocarbon products, well ahead of the timetable agreed with the Bank. A macroeconomic assessment of energy policies, including the impact of pricing and tariff policies on the Government budget and the balance of payments, is planned for FY83. Studies on energy demand by main sectors are underway with USAID assistance. The Bank's FY83 Technical Assistance project will include additional studies on petroleum products marketing, geothermal resources and the potential of wind energy, the latter through resource assessment and demonstration units to be installed under the project. It will also include energy audits of major industries with a view to improving the efficient use of energy, assistance in compiling and processing geological and hydrocarbon production data, and power system management assistance. Upon completion of these studies a general energy assessment would be required in about FY85, to map out the future development strategy for the sector.

58. The lending program contains two projects in the energy sector, the first in FY84 for gas development or distribution, the second in FY86 possibly for petroleum production focusing on small fields in which foreign investment is unlikely to be interested, or for assisting the implementation of an energy efficiency improvement program. In addition, an FY85(R) project is proposed in renewable energy.

59. Transport. Since 1978, the Bank has concentrated its operations in the transport sector on improving the Government's road maintenance system and the rural roads network. The maintenance of roads and improvements to the rural roads remain the two areas in the transport sector in which continued Bank assistance is most required. This is the conclusion of a Bank transport sector study carried out in connection with the Sixth Plan Review. Consequently, the lending program contains a rehabilitation and maintenance project (FY84) which would be a continuation of the Fourth Highway (Maintenance) project and a rural transportation project (FY87s). The latter would partly be based on the findings of a Bank study undertaken by OPS on the role of transport, including non-motorized transport, in the development of rural areas. As regards urban transport, the Bank prepared, in FY82, a sector survey, which identified strengthening public transport and access to it by low-income groups, and cost recovery as main policy issues in the sector. An FY84 (R) project would improve public transport in Tunis, Sfax and Sousse, strengthen the institutions and provide training.

60. Health and Population. The Government's health and population policy has undergone a radical change in the second half of the 1970s. Up to the mid-1970s, the thrust of efforts in the sector was directed towards the expansion of the physical infrastructure and of hospital-based and curative services centered in urban areas. This approach, reinforced by a thriving private sector, bypassed the poor and excluded over half of the rural population, from the system. The Fifth Plan (1977-81) articulated for the first time a shift in emphasis, giving priority to basic health care and preventive medicine, to a better regional distribution of medical resources and services, to the establishment of an effective health referral system, and to improved cost effectiveness. In the process, family planning services were to be integrated with preventive and curative care, and with nutrition, health education and sanitation in a basic health delivery system focused on underserved areas. The implementation of this policy is supported by the ongoing Bank-assisted Health and Population project (FY81), which, as a first phase, establishes the institutional framework for this new approach, and introduces a basic health care delivery system in eight of the country's 21 governorates. We have scheduled a follow-up Rural Health project in FY84 to extend the system of basic integrated health services to the remainder of the country. During the preparation of this project, we are planning to assess the experience gained under this new system, particularly as it affects infant mortality, morbidity and fertility, through a special review.

61. Education and Training. Since independence, the Government concentrated its efforts on establishing an educational infrastructure quantitatively commensurate with national needs. This major effort, supported by three Bank-assisted projects, was highly successful. In all but the most remote areas, the school system now has a place for every child of primary school age. Recently, the focus has shifted from a quantitative expansion of the system to policies and measures (a) to improve its quality and internal efficiency, to reduce the large number of repeaters and dropouts, and (b) to gear its output to the manpower requirements of an increasingly sophisticated economy. In support of this policy, the Bank's Second and Third Education projects helped strengthen the manpower planning capability of the Government, while the Fourth project (FY81) focuses on the training of skilled workers and of apprentices, particularly in the building and manufacturing industries. The Bank's future education sector and project work will continue to help the Government meet the two main sectoral objectives mentioned above. A Fifth project (FY83) will focus on primary teacher training and agricultural education, and on planning education and training of technicians for industry and commerce. Further projects (FY84R and FY86) would support the training of science and technical subject teachers and of skilled workers and technicians, as well as help meet the needs in management training by the public and private sectors. Sector work in FY84 and FY86 would underpin the proposed lending by addressing a) needs for management and non-formal training; and b) technical and scientific manpower demand and supply.

62. Urban Development. Tunisia is one of the most rapidly urbanizing countries in the Mediterranean region. Its urban population increased at 6.3 percent p.a. during 1975-80. This is partly due to the return of migrant workers from abroad in addition to strong rural-urban migration, and also to a

persistent high rate of population growth. This resulted in strong pressure on the housing sector, particularly in the old parts of the main towns, and in peripheral squatter areas. Only recently, the Government started to respond to these developments by targetting its housing programs on low-income groups through upgrading settlements and the development of sites and services projects. An FY82 Bank review of the Tunisian housing sector, undertaken jointly with the Tunisian authorities, contributed to a more precise definition of the main constraints: the complexity and inadequacy of the institutional framework for meeting the shelter needs of low-income groups, the lag in the provision of serviced land for housing, and the insufficient attention given to spatial planning in Tunisia in general. The Third Urban project (FY83) addresses these issues in five project sites in the Greater Tunis and the North West regions. Sector work in FY86 and FY87 would focus on the use of more economic and efficient construction materials and techniques supporting a Fourth Urban Project in FY87.

Table 5: BANK LENDING PROGRAM  
BY SECTOR

| <u>Sector</u>         | <u>Number of Projects</u> |                      | <u>Amount</u>   |                      |                 |                      |
|-----------------------|---------------------------|----------------------|-----------------|----------------------|-----------------|----------------------|
|                       | <u>FY78-82</u>            | <u>FY83-87</u>       | <u>FY78-82</u>  |                      | <u>FY83-87</u>  |                      |
|                       | <u>Actual</u>             | <u>Prop. Program</u> | <u>Actual</u>   | <u>Prop. Program</u> | <u>Actual</u>   | <u>Prop. Program</u> |
|                       |                           |                      | <u>\$ mill.</u> | <u>%</u>             | <u>\$ mill.</u> | <u>%</u>             |
| Agriculture           | 6                         | 8                    | 171.5           | 26.3                 | 234.5           | 31.7                 |
| Industry <u>/1</u>    | 4                         | 6                    | 114.1           | 17.6                 | 155.0           | 20.9                 |
| Power and Energy      | 2                         | 2                    | 78.5            | 12.1                 | 70.0            | 9.5                  |
| Transport             | 4                         | 2                    | 146.5           | 22.6                 | 65.0            | 8.8                  |
| Health and Population | 1                         | 1                    | 12.5            | 1.9                  | 20.0            | 2.7                  |
| Education             | 1                         | 2                    | 26.0            | 4.0                  | 64.0            | 8.6                  |
| Urban Dev't <u>/2</u> | 4                         | 4                    | 101.0           | 15.5                 | 122.0           | 16.5                 |
| Other <u>/3</u>       | -                         | 2                    | -               | -                    | 9.5             | 1.3                  |
| Total                 | 22                        | 27                   | 650.1           | 100.0                | 740.0           | 100.0                |

/1 Inc. Mining

/2 Inc. Water and Sewerage, focussing on small towns and rural areas.

/3 Technical Assistance

G. THE PROPOSED BANK PROGRAM

63. The proposed ESW program (Attachment 4) is the minimum required in relation to the increasing complexity of the macroeconomic and sector issues that Tunisia will face in the medium term. Bank staff will be supplemented by consultants financed through project and sector loans as well as specialized Technical Assistance loans, and in selected cases, for specific project preparation tasks, through the Project Preparation Facility. In addition, a strong input by the Tunisian Government is expected. Collaboration with

Tunisian private and public research institutions and consultants would be sought, whenever feasible. A Bank lending program of \$740 million is proposed for FY83-87. Although by about 14 percent higher in current per-capita terms than the actual average FY78-82 level of \$20.0, this would represent a reduction in real p.c. lending of about 15 percent from the FY78-82 level. The proposed reduction in real p.c. lending to Tunisia is entirely due to the general resource constraint which the Bank is presently facing. Based on needs and performance Tunisia would merit at least maintaining Bank lending at the present level in real terms. We, therefore, propose to reconsider the lending volume and the possibility of an increase, in about two years, in the light of the Bank's resource position at that time, and the Government performance in tackling the general and sectoral policy issues mentioned before. The lending program would be delivered through a total of 27 projects, or 5 to 6 projects per year. Increased importance in the lending program would be given to agriculture and industry, which would receive 31.7 percent and 20.9 percent respectively of total FY83-87 lending, as compared to 26.3 percent and 17.6 percent respectively in FY78-82. Also increased would be lending for education and training from 4.0 percent to 8.6 percent of total lending. The allocation for transport would decline from 22.6 percent to 8.8 percent of total lending. The emphasis on agriculture, industry and education reflects the continued importance of employment creation and regional development. The emphasis on rural health and urban development is in line with the government concern for poverty alleviation. As in the past, we expect that about 60 percent of the program would contribute directly to employment creation and poverty alleviation.

64. Cofinancing. In the past, the Bank's financial involvement in projects has often been instrumental in attracting other foreign concessionary sources of funds, to invest either in the same projects or the same institutions that have benefitted from Bank loans, relying largely on the Bank's appraisal of these projects or institutions. The Government, in most of those cases, has preferred to retain the initiative in contacting formally other aid organizations about cofinancing with the Bank. For the future, we envisage a continuation of this pattern of cofinancing of projects and institutions between foreign aid institutions and the Bank. At the same time, in view of the limited Bank resources and the likely constraints on other concessionary financing sources to expand their lending to Tunisia, we anticipate a greater need for funds from external commercial sources, particularly to finance self-liquidating projects of a commercial nature. In its projections for the Sixth Development Plan the Government has programmed a significant amount to be obtained from commercial banks. However, given the current high level of interest rates, the Government also indicated that, for the time being, it wants to use commercial bank loans sparingly. We, therefore, do not expect that cofinancing with commercial banks will soon experience a substantial expansion. We nevertheless plan to continue our dialogue with the Government on this subject.

65. IFC. The ongoing gradual liberalization of the economic system has increased the scope for IFC involvement and has resulted in IFC resuming its activities in Tunisia in FY82 with a loan to COFIT, an institution financing tourism projects. The loan is for about \$20 million equivalent for IFC's own account and about \$20 million equivalent for the account of participants. IFC

is considering additional operations in several industries in Tunisia in the current fiscal year, for instance in the phosphate sector with the expansion of SIAPE, a major exporter of phosphoric acid. IFC is also considering providing technical assistance to recently established development banks. Periodic briefings among the staff, and the preparation by the Bank in the near future of an Industry Sector Strategy Paper for Tunisia will provide for close Bank/IFC cooperation.

#### H. CONCLUSIONS AND RECOMMENDATIONS

66. The beneficial impact derived from Tunisia's hydrocarbon resources during the 1970s, which masked some inherent weaknesses of the economy, is unlikely to persist for a long time. Tunisia is expected to become a net importer of petroleum products towards the end of the 1980s. The Government will have to adjust its policies to accommodate the concomitant change in the economic structure. It took the first steps in this direction during the preparation of its Sixth Development Plan (1982-86). This adjustment process will require further diversification of exports, greater savings efforts, gradual liberalization of all sectors of the economy, reduction in consumer subsidies, and stronger incentives to the private sector particularly in agriculture and industry, while taking measures to increase employment and target development to low-income groups. Many of these measures will be politically difficult in view of the strong propensity to consume of the population and substantial urban unemployment and rural underemployment.

67. The Bank's strategy is to support policies, programs and projects that will help promote this adjustment process. The expected effectiveness of this strategy is greatly enhanced by the constructive dialogue that has developed over the past years between the Government and the Bank on all major policy issues. The proposed ESW, in which the Tunisian Government is expected to collaborate actively, will both help formulate these adjustment policies and programs and underpin a sharply focussed lending program. The focussing of the lending program will mitigate the reduction in lending in real terms which is proposed for the next five years in view of the Bank's general resource constraints. A further mitigating factor will be the proposed increase in the number of Bank financed projects, in agriculture and industry, as well as the introduction in the program of two free-standing loans for technical assistance for project identification and preparation. This will facilitate channeling non-concessionary funds, the need for which will greatly increase, to well-defined and well-prepared projects and programs.



Population: 6.5 million (mid-81) 2.5% p.a.  
GNP per capita: \$1,310 (1980)  
Area: 164,150 sq. km.  
Literacy Rate 55% adult pop.

Attachment 1a

| PROJECT                            | IBRD/<br>IDA        | Through<br>FY76 | ACTUAL  |       |       |       |       | FY87  | PROPOSED PROGRAM |       |       |       |       | TOTAL<br>FY71-76 | TOTAL<br>FY77-81 | TOTAL<br>FY82-86 | TOTAL<br>FY87-87 | RESERVE PROJECTS |
|------------------------------------|---------------------|-----------------|---------|-------|-------|-------|-------|-------|------------------|-------|-------|-------|-------|------------------|------------------|------------------|------------------|------------------|
|                                    |                     |                 | FY77    | FY78  | FY79  | FY80  | FY81  |       | FY83             | FY84  | FY85  | FY86  | 1987  |                  |                  |                  |                  |                  |
| Agricultural Credit I              | IBRD/IDA            | 5.0/3.0         |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Agricultural Credit II             | IBRD                |                 | 12.0    |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Agricultural Credit III            | IBRD                |                 |         |       |       | 30.0  |       |       |                  |       |       |       |       |                  |                  |                  |                  | 30.0 (FY86)      |
| Agricultural Credit IV             | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Grain Storage                      | IBRD                |                 |         |       |       |       |       | 42.0  |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Grain Distribution                 | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Cooperative Farms                  | IBRD/IDA            | 12.0/6.0        |         |       |       |       |       |       |                  |       |       | 30.0  |       |                  |                  |                  |                  |                  |
| Fisheries I                        | IDA                 | 2.0             |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Fisheries II                       | IBRD                |                 |         |       | 28.5  |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 25.0 (FY85)      |
| Soil Conservation/Forestry         | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Irrigation Dev. I (Sidi Salem)     | IBRD                |                 | 42.0    |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Irrigation Development II (South)  | IBRD                |                 |         |       |       |       | 25.0  |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Irrigation Rehab. I (Nebhana)      | IBRD                | 12.2            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Irrigation Rehab. II (Nebhana)     | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Irrigation Rehabilitation III      | IBRD                |                 |         |       |       |       |       | 22.0  |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Agricultural Dev./North West I     | IBRD                |                 |         |       |       |       |       |       |                  | 34.5  |       |       |       |                  |                  |                  |                  |                  |
| Regional Development/North West II | IBRD                |                 |         |       |       |       |       | 24.0  |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Regional Dev./Central Tunisia I    | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Southern Range Management          | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       | 25.0* |                  |                  |                  |                  | 30.0*            |
| Agricultural Research & Extension  | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Small and Medium Irrigation        | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Agricultural Marketing             | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       | 30.0  |                  |                  |                  |                  |                  |
| Input Supply/Mechanization         | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 25.0 (FY85)      |
| DFCs - SNI 1-V                     | IBRD                | 49.0            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| BDET (exSNI) VI                    | IBRD                | 20.0            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| BDET VII                           | IBRD                |                 |         | 35.0  |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Industry I - Gafsa Phosphates      | IBRD                | 23.3            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Small Scale Industries I           | IBRD                |                 |         |       |       |       | 30.0  |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Small Scale Industries II          | IBRD                |                 |         |       |       |       |       | 18.6  |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Industry II (Sogitex)              | IBRD                |                 |         |       |       |       |       |       |                  |       |       | 35.0* |       |                  |                  |                  |                  |                  |
| Industry III (Elec/ & Mech.)       | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Industry IV (Sofomeca)             | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Industry V (Export Industries)     | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Industry VI (Construc. Materials)  | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 25.0 (FY86)      |
| Industry VII (Unidentified)        | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Sogitex II                         | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Mining Unidentified                | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 25.0**           |
| Power I                            | IBRD                | 12.0            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Power II                           | IBRD                |                 | 14.5    |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Power III (Rural Elec. I)          | IBRD                |                 |         |       |       |       |       | 41.5  |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Energy I                           | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Energy II                          | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Renewable Energy                   | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Gas Pipeline I                     | IBRD                | 7.5             |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 15.0 (FY85)      |
| Gas Pipeline II                    | IBRD                |                 |         |       |       |       | 37.0  |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Tourism Infrastructure I           | IBRD/IDA            | 14.0/10.0       |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Highways Engineering               | IBRD                |                 | 0.8     |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Highways I                         | IBRD                |                 | 24.0    |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Highways II                        | IBRD                |                 | 28.0    |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Highways III (Rural Roads)         | IBRD                |                 |         | 32.0  |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Highways IV (Maintenance)          | IBRD                |                 |         |       |       |       | 36.5  |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Highways V (Rural Roads)           | IBRD                |                 |         |       |       |       |       | 35.5  |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Highways VI (Maintenance)          | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Highways VII (Rural Transport)     | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 35.0             |
| Ports I - II                       | IBRD                | 15.5            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Ports III                          | IBRD                |                 |         |       |       |       | 42.5  |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Railways I                         | IBRD/IDA            | 8.5/8.5         |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Urban Transport                    | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 30.0 (FY84)      |
| Population I                       | IDA                 | 4.8             |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Health and Population II           | IBRD                |                 |         |       |       |       |       | 12.5  |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Rural Health                       | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 20.0             |
| Education I - II                   | IDA                 | 18.0            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Hotel Training                     | IBRD                | 5.6             |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Education III                      | IBRD                | 8.9             |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Education IV (Vocational Training) | IBRD                |                 |         |       |       |       |       | 26.0  |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Education V                        | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Education VI                       | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 25.0 (FY84)      |
| Education VII                      | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Urban Development I                | IBRD/IDA            | 11.0/7.0        |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Urban Development II               | IBRD                |                 |         |       |       | 19.0  |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Urban Development III              | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Urban Development IV               | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Urban Sewerage I                   | IBRD                | 28.0            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Urban Sewerage II                  | IBRD                |                 |         |       |       | 26.5  |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Urban Sewerage III                 | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Rural Sewerage                     | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Water Supply I                     | IBRD                | 15.0            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Water Supply II                    | IDA                 | 10.5            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Water Supply III                   | IBRD                | 23.0            |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Water Supply IV                    | IBRD                |                 | 21.0    |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Water Supply V                     | IBRD                |                 |         |       |       | 25.0  |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Water Supply VI                    | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Water Supply VII (South)           | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Rural Water Supply                 | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  | 20.0 (FY84)      |
| Technical Assistance I             | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| Technical Assistance II            | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
| LENDING PROGRAM                    | IBRD                | 323.3           | 89.5    | 67.0  | 99.0  | 171.0 | 152.6 | 160.5 | 140.5            | 144.5 | 150.0 | 150.0 | 155.0 | 323.3            | 579.1            | 745.5            | 740.0            |                  |
|                                    | IDA                 | 69.8            | 4.8 /1  | -     | -     | -     | -     | -     | -                | -     | -     | -     | -     | 69.8             | 4.8 1/           | -                | -                |                  |
|                                    | Total               | 393.1           | 89.5 /2 | 67.0  | 99.0  | 171.0 | 152.6 | 160.5 | 140.5            | 144.5 | 150.0 | 150.0 | 155.0 | 393.1            | 579.1 2/         | 745.5            | 740.0            |                  |
|                                    | Number of which IDA | 34 (9)          | 4 (-)   | 2 (-) | 4 (-) | 5 (-) | 6 (-) | 5 (-) | 6 (-)            | 5 (-) | 6 (-) | 5 (-) | 5 (-) | (34) (9)         | 21 (-)           | 27 (-)           | 27 (-)           |                  |
| Lending program in constant        |                     |                 | 120.6   | 84.8  | 119.4 | 195.9 | 163.4 | 160.5 | 131.8            | 127.6 | 125.0 | 117.9 | 114.9 |                  |                  |                  |                  |                  |
| Commitment Deflator (FY82- 100)    |                     |                 | 74.2    | 79.0  | 82.9  | 87.3  | 93.4  | 100.0 | 106.6            | 113.2 | 120.0 | 127.2 | 134.9 |                  |                  |                  |                  |                  |
| Standby projects                   | IBRD                |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |
|                                    | Number              |                 |         |       |       |       |       |       |                  |       |       |       |       |                  |                  |                  |                  |                  |

\* Standby projects  
1/ Population supplement financed by NORAD through IDA  
2/ Total does not include population supplement

TUNISIA - SUMMARY OF BANK GROUP AND OFFICIAL LENDING

| SECTORAL DISTRIBUTION OF BANK GROUP COMMITMENTS (X) | Through      |              |              |              |              |              |              |              |              |              |              |              | Total FY71-76 | Total FY77-80 | Total FY81-86 | Total FY87-92 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
|   | FY76         | FY77         | FY78         | FY79         | FY80         | FY81         | FY82         | FY83         | FY84         | FY85         | FY86         | FY87         |               |               |               |               |
| Agric. and Rural Develop.                           | 10.2         | 57.3         | -            | 28.5         | 32.2         | 15.7         | 39.9         | 21.3         | 41.2         | 40.0         | 36.7         | 19.3         | 10.2          | 27.9          | 36.0          | 31.7          |
| Industry, DFCs                                      | 23.5         | -            | 52.2         | -            | -            | 31.8         | 19.0         | 10.7         | -            | 56.7         | 20.0         | 16.1         | 23.5          | 14.4          | 21.5          | 21.0          |
| Energy, Power                                       | 3.0          | 15.4         | -            | -            | -            | 27.2         | -            | -            | 24.2         | -            | 23.3         | -            | 3.0           | 9.7           | 9.4           | 9.4           |
| Transport., Tourism                                 | 29.7         | -            | 47.8         | -            | 67.8         | -            | 22.1         | -            | 20.8         | -            | -            | 22.6         | 29.7          | 25.5          | 8.8           | 8.8           |
| Population, Health                                  | 1.2          | 5.1          | -            | -            | -            | 8.3          | -            | -            | 13.8         | -            | -            | -            | 1.2           | 2.2           | 2.7           | 2.7           |
| Education   | 8.3          | -            | -            | -            | -            | 17.0         | -            | 24.2         | -            | -            | 20.0         | -            | 8.3           | 4.5           | 8.6           | 8.6           |
| Urban Development                                   | 4.6          | -            | -            | 19.0         | -            | -            | -            | 17.1         | -            | -            | -            | 42.0         | 4.6           | 3.3           | 3.7           | 7.3           |
| Water Supply, Sewerage                              | 19.5         | 22.2         | -            | 52.5         | -            | -            | 19.0         | 23.4         | -            | -            | -            | -            | 19.5          | 12.5          | 8.5           | 9.2           |
| Technical Assistance                                | -            | -            | -            | -            | -            | -            | -            | 3.2          | -            | 3.3          | -            | -            | -             | -             | 1.3           | 1.3           |
| <b>Total</b>  | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b>  | <b>100.0</b>  | <b>100.0</b>  | <b>100.0</b>  |

|                        |       |       |       |       |       |       |       |        |        |        |        |        |  |  |  |  |
|------------------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--|--|--|--|
| IBRD O/S incl. Undisb. | 296.3 | 380.7 | 453.9 | 550.4 | 712.5 | 792.8 | 931.5 | 1045.0 | 1155.3 | 1267.8 | 1365.5 | 1431.7 |  |  |  |  |
| excl. Undisb.          | 119.1 | 154.2 | 202.4 | 247.0 | 297.0 | 283.5 | 345.3 | 442.4  | 549.0  | 644.1  | 729.0  | 814.2  |  |  |  |  |

|                          |      |      |      |      |      |      |      |       |       |       |       |       |  |  |  |  |
|--------------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|--|--|--|--|
| IBRD-Gross Disbursements | 19.5 | 40.3 | 42.0 | 46.4 | 57.9 | 58.7 | 66.0 | 123.2 | 141.4 | 147.7 | 155.1 | 159.9 |  |  |  |  |
| -Repayments              | 6.0  | 7.8  | 9.6  | 11.4 | 13.7 | 16.8 | 19.6 | 26.5  | 34.7  | 47.5  | 62.8  | 73.8  |  |  |  |  |
| -Net Disbursements       | 13.5 | 32.5 | 32.4 | 35.0 | 44.2 | 41.9 | 46.9 | 96.7  | 106.7 | 100.2 | 92.3  | 86.1  |  |  |  |  |
| -Interest & Charges      | 8.8  | 10.0 | 12.9 | 17.0 | 20.7 | 23.5 | 25.2 | 35.0  | 44.8  | 55.4  | 66.6  | 76.8  |  |  |  |  |
| -Net Transfer            | 4.7  | 22.5 | 19.5 | 18.0 | 23.5 | 18.4 | 21.2 | 61.7  | 61.9  | 44.8  | 25.7  | 9.3   |  |  |  |  |

|                      |      |      |      |      |      |      |      |       |       |       |       |       |  |  |  |  |
|----------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|--|--|--|--|
| IBRD/IDA             |      |      |      |      |      |      |      |       |       |       |       |       |  |  |  |  |
| -Gross Disbursements | 29.6 | 50.4 | 42.1 | 46.9 | 58.9 | 59.0 | 67.8 | 123.2 | 141.4 | 147.7 | 155.1 | 159.9 |  |  |  |  |
| -Repayments          | 6.2  | 8.0  | 9.8  | 11.9 | 14.0 | 17.5 | 20.8 | 27.2  | 35.5  | 48.3  | 63.6  | 74.9  |  |  |  |  |
| -Net Disbursements   | 23.4 | 42.4 | 32.3 | 35.0 | 44.9 | 41.5 | 47.0 | 96.0  | 105.9 | 99.4  | 91.5  | 85.0  |  |  |  |  |
| -Interest & Charges  | 9.2  | 10.5 | 13.9 | 18.3 | 21.2 | 24.0 | 25.7 | 35.5  | 45.3  | 55.8  | 67.0  | 77.2  |  |  |  |  |
| -Net Transfer        | 14.2 | 31.9 | 18.4 | 16.7 | 23.7 | 17.5 | 21.3 | 60.5  | 60.6  | 43.6  | 24.5  | 7.8   |  |  |  |  |

| CY                        | Actual |      |      |      |      | Projected |      |      |      |      |      |      |
|---------------------------|--------|------|------|------|------|-----------|------|------|------|------|------|------|
|                           | 1976   | 1977 | 1978 | 1979 | 1980 | 1981      | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| IBRD EXPOSURE (X)         |        |      |      |      |      |           |      |      |      |      |      |      |
| IBRD Disburs./            |        |      |      |      |      |           |      |      |      |      |      |      |
| Total Gross Disbursements | 11.0   | 6.6  | 5.7  | 8.6  | 9.5  | 10.4      | 9.9  | 11.8 | 11.2 | 10.1 | 10.4 | 9.5  |
| IBRD DOD/Total DOD        | 11.0   | 9.1  | 7.8  | 7.7  | 8.4  | 9.0       | 8.2  | 9.1  | 9.7  | 9.8  | 9.9  | 9.7  |
| IBRD Debt Service/        |        |      |      |      |      |           |      |      |      |      |      |      |
| Total Debt Service        | 16.7   | 14.9 | 12.7 | 10.4 | 8.5  | 7.9       | 8.2  | 9.6  | 10.8 | 12.2 | 13.1 | 12.8 |

COMMITMENTS FROM OFFICIAL SOURCES (US\$M.)

|                          |              |              |              |              |              |              |              |               |               |               |               |               |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| Grants                   | 53.2         | 47.3         | 32.7         | 50.7         | 41.5         | (26)         | (25)         | (25)          | (25)          | (25)          | (15)          | (15)          |
| Concessional Loans       | 305.2        | 282.8        | 152.7        | 285.3        | 172.8        | -            | -            | -             | -             | -             | -             | -             |
| Total Bilateral          | 300.4        | 275.7        | 146.7        | 267.3        | 126.8        | (200)        | (200)        | (200)         | (230)         | (250)         | (250)         | (340)         |
| France                   | 48.1         | 42.4         | 8.9          | 68.7         | -            | -            | -            | -             | -             | -             | -             | -             |
| Germany, Fed. Rep. of    | 57.0         | 38.7         | 34.9         | 9.3          | 104.7        | -            | -            | -             | -             | -             | -             | -             |
| Kuwait                   | 20.5         | 24.4         | -            | 21.7         | -            | -            | -            | -             | -             | -             | -             | -             |
| Saudi Arabia             | -            | 55.9         | 71.5         | -            | -            | -            | -            | -             | -             | -             | -             | -             |
| United States            | 2.9          | 10.0         | 21.6         | 117.2        | 15.8         | -            | -            | -             | -             | -             | -             | -             |
| Other                    | 171.9        | 104.3        | 9.8          | 50.4         | 6.3          | -            | -            | -             | -             | -             | -             | -             |
| Total Multilateral       | 4.8          | 7.1          | 6.0          | 18.0         | 46.0         | (50)         | (50)         | (50)          | (50)          | (50)          | (70)          | (100)         |
| IDA                      | 4.8          | -            | -            | -            | -            | -            | -            | -             | -             | -             | -             | -             |
| Other                    | -            | 7.1          | 6.0          | 18.0         | 46.0         | -            | -            | -             | -             | -             | -             | -             |
| Non Concessional Loans   | 124.7        | 165.1        | 118.2        | 264.7        | 290.9        | (50)         | (100)        | (150)         | (200)         | (250)         | (300)         | (400)         |
| Total Bilateral          | 61.2         | 53.7         | 44.6         | 112.1        | 99.9         | -            | -            | -             | -             | -             | -             | -             |
| Total Multilateral       | 63.5         | 111.4        | 73.6         | 152.6        | 191.0        | (178)        | (191)        | (176)         | (190)         | (202)         | (210)         | (205)         |
| IBRD                     | 60.0         | 77.5         | 67.0         | 99.0         | 171.0        | -            | -            | -             | -             | -             | -             | -             |
| Other                    | 3.5          | 33.9         | 6.6          | 53.6         | 20.0         | -            | -            | -             | -             | -             | -             | -             |
| Private Financing        | 206.4        | 455.2        | 422.4        | 297.6        | 111.6        | (77)         | (246)        | (448)         | (652)         | (831)         | (807)         | (937)         |
| <b>TOTAL COMMITMENTS</b> | <b>636.3</b> | <b>903.1</b> | <b>693.3</b> | <b>847.6</b> | <b>575.3</b> | <b>(555)</b> | <b>(787)</b> | <b>(1024)</b> | <b>(1322)</b> | <b>(1583)</b> | <b>(1637)</b> | <b>(1982)</b> |

Notes: All data in this table reflect O/S amounts and transactions of loans sold to third parties.

TABLE 3A  
TUNISIA - SOCIAL INDICATORS DATA SHEET

| AREA (THOUSAND SQ. KM.)   | TUNISIA  |         |             |             | REFERENCE GROUPS (WEIGHTED AVERAGES<br>- MOST RECENT ESTIMATE)/g |  |
|---|----------|---------|-------------|-------------|--|--|
|   | 1960     |         | MOST RECENT |             | MIDDLE INCOME<br>NORTH AFRICA &<br>MIDDLE EAST                   | MIDDLE INCOME<br>LATIN AMERICA & CARIBBEAN |
|   | /b       | 1970    | /b          | ESTIMATE /b |  |  |
| TOTAL   | 163.6    |         |             |             |  |  |
| AGRICULTURAL  | 75.2     |         |             |             |  |  |
| GNP PER CAPITA (US\$)   | 230.0    | 380.0   | 1310.0      | 1253.6      | 1902.0   |  |
| ENERGY CONSUMPTION PER CAPITA<br>(KILOGRAMS OF COAL EQUIVALENT) | 165.2    | 289.7   | 589.9       | 713.5       | 1259.9   |  |
| POPULATION AND VITAL STATISTICS                                 |          |         |             |             |  |  |
| POPULATION, MID-YEAR (THOUSANDS)                                | 4221.0   | 5127.0  | 6354.0      | .           | .  |  |
| URBAN POPULATION (PERCENT OF TOTAL)                             | 36.0     | 43.5    | 51.7        | 47.3        | 65.7   |  |
| POPULATION PROJECTIONS  |          |         |             |             |  |  |
| POPULATION IN YEAR 2000 (MILLIONS)                              |          |         | 10.1        | .           | .  |  |
| STATIONARY POPULATION (MILLIONS)                                |          |         | 17.8        | .           | .  |  |
| YEAR STATIONARY POPULATION IS REACHED                           |          |         | 2080        | .           | .  |  |
| POPULATION DENSITY  |          |         |             |             |  |  |
| PER SQ. KM.   | 25.8     | 31.3    | 37.9        | 35.8        | 35.2   |  |
| PER SQ. KM. AGRICULTURAL LAND                                   | 60.7     | 72.9    | 82.4        | 420.9       | 92.5   |  |
| POPULATION AGE STRUCTURE (PERCENT)                              |          |         |             |             |  |  |
| 0-14 YRS.   | 43.4     | 46.2    | 41.4        | 44.3        | 39.7   |  |
| 15-64 YRS.  | 52.5     | 50.0    | 54.9        | 52.4        | 56.1   |  |
| 65 YRS. AND ABOVE   | 4.2      | 3.8     | 3.7         | 3.3         | 4.2  |  |
| POPULATION GROWTH RATE (PERCENT)                                |          |         |             |             |  |  |
| TOTAL   | 1.8 /c   | 1.9/c   | 2.1         | 2.8         | 2.4  |  |
| URBAN   | 3.2      | 3.8     | 3.9         | 4.6         | 3.8  |  |
| CRUDE BIRTH RATE (PER THOUSAND)                                 | 48.9     | 41.8    | 34.9        | 41.2        | 31.4   |  |
| CRUDE DEATH RATE (PER THOUSAND)                                 | 21.0     | 14.6    | 9.2         | 12.2        | 8.4  |  |
| GROSS REPRODUCTION RATE   | 3.4      | 3.2     | 2.6         | 2.9         | 2.1  |  |
| FAMILY PLANNING   |          |         |             |             |  |  |
| ACCEPTORS, ANNUAL (THOUSANDS)                                   | ..       | 29.2    | 180.9       | .           | .  |  |
| USERS (PERCENT OF MARRIED WOMEN)                                | ..       | 10.0    | 21.3        | .           | .  |  |
| FOOD AND NUTRITION  |          |         |             |             |  |  |
| INDEX OF FOOD PRODUCTION  |          |         |             |             |  |  |
| PER CAPITA (1969=71=100)  | 97.0     | 96.0    | 132.0       | 100.4       | 110.0  |  |
| PER CAPITA SUPPLY OF  |          |         |             |             |  |  |
| CALORIES (PERCENT OF  |          |         |             |             |  |  |
| REQUIREMENTS)   | 83.2     | 88.2    | 115.1/d     | 108.5       | 108.4  |  |
| PROTEINS (GRAMS PER DAY)  | 51.8     | 56.6    | 75.1/d      | 71.9        | 66.0   |  |
| OF WHICH ANIMAL AND PULSE                                       | 12.9     | 13.5    | 22.7/d      | 18.0        | 34.0   |  |
| CHILD (AGES 1-4) MORTALITY RATE                                 | 36.1     | 24.5    | 9.8         | 15.1        | 5.6  |  |
| HEALTH  |          |         |             |             |  |  |
| LIFE EXPECTANCY AT BIRTH (YEARS)                                | 48.1     | 54.2    | 60.2        | 56.9        | 64.2   |  |
| INFANT MORTALITY RATE<br>(PER THOUSAND)                         | 158.9    | 131.3   | 90.0        | 104.3       | 64.2   |  |
| ACCESS TO SAFE WATER (PERCENT OF                                |          |         |             |             |  |  |
| POPULATION)   |          |         |             |             |  |  |
| TOTAL   | ..       | 49.0    | 70.0/e      | 59.1        | 65.6   |  |
| URBAN   | ..       | ..      | 63.0/e      | 83.1        | 78.9   |  |
| RURAL   | ..       | ..      | 77.0/e      | 39.8        | 43.9   |  |
| ACCESS TO EXCRETA DISPOSAL (PERCENT                             |          |         |             |             |  |  |
| OF POPULATION)  |          |         |             |             |  |  |
| TOTAL   | ..       | 62.0    | ..          | ..          | 59.3   |  |
| URBAN   | ..       | 100.0   | ..          | ..          | 75.3   |  |
| RURAL   | ..       | 34.0    | 60.0/e      | ..          | 30.0   |  |
| POPULATION PER PHYSICIAN  | 10026.1  | 5934.0  | 3576.2      | 4015.5      | 1617.3   |  |
| POPULATION PER NURSING PERSON                                   | ..       | 727.5   | 1167.8      | 1802.2      | 1063.5   |  |
| POPULATION PER HOSPITAL BED                                     |          |         |             |             |  |  |
| TOTAL   | 405.2    | 409.1   | 463.7       | 641.7       | 477.4  |  |
| URBAN   | 277.3/f  | 302.8   | 340.7/e     | 538.3       | 679.8  |  |
| RURAL   | 1040.9/f | 1269.3  | 1275.8/e    | 2403.3      | 1903.4   |  |
| ADMISSIONS PER HOSPITAL BED                                     | ..       | 24.1    | 25.0/e      | 25.5        | 27.3   |  |
| HOUSING   |          |         |             |             |  |  |
| AVERAGE SIZE OF HOUSEHOLD                                       |          |         |             |             |  |  |
| TOTAL   | ..       | 5.1 /g  | ..          | ..          | ..   |  |
| URBAN   | ..       | 5.1 /g  | ..          | ..          | ..   |  |
| RURAL   | ..       | 5.1 /g  | ..          | ..          | ..   |  |
| AVERAGE NUMBER OF PERSONS PER ROOM                              |          |         |             |             |  |  |
| TOTAL   | ..       | 3.2 /g  | ..          | ..          | ..   |  |
| URBAN   | ..       | 2.7 /g  | ..          | ..          | ..   |  |
| RURAL   | ..       | 3.6 /g  | ..          | ..          | ..   |  |
| ACCESS TO ELECTRICITY (PERCENT                                  |          |         |             |             |  |  |
| OF DWELLINGS)   |          |         |             |             |  |  |
| TOTAL   | ..       | 24.0 /g | ..          | ..          | ..   |  |
| URBAN   | ..       | ..      | ..          | ..          | ..   |  |
| RURAL   | ..       | ..      | ..          | ..          | ..   |  |

TABLE 3A  
TUNISIA - SOCIAL INDICATORS DATA SHEET

|  | TUNISIA                    |             |        | REFERENCE GROUPS (WEIGHTED AVERAGES<br>- MOST RECENT ESTIMATE) <sup>/a</sup> |                               |                           |
|--|----------------------------|-------------|--------|--|-------------------------------|---------------------------|
|  | 1960                       | MOST RECENT |        | MIDDLE INCOME  | MIDDLE INCOME                 |                           |
|  |                            | /b          | 1970   | /b ESTIMATE /b   | NORTH AFRICA &<br>MIDDLE EAST | LATIN AMERICA & CARIBBEAN |
| <b>EDUCATION</b>   |                            |             |        |  |                               |                           |
| ADJUSTED ENROLLMENT RATIOS   |                            |             |        |  |                               |                           |
| PRIMARY:   | TOTAL                      | 66.0        | 100.0  | 102.0  | 88.7                          | 104.3                     |
|  | MALE                       | 80.0        | 121.0  | 119.0  | 104.5                         | 106.4                     |
|  | FEMALE                     | 43.0        | 80.0   | 85.0   | 72.5                          | 103.3                     |
| SECONDARY:   | TOTAL                      | 12.0        | 23.0   | 25.0   | 39.7                          | 41.3                      |
|  | MALE                       | 19.0        | 33.0   | 31.0   | 49.3                          | 40.4                      |
|  | FEMALE                     | 5.0         | 13.0   | 19.0   | 29.0                          | 41.6                      |
| VOCATIONAL ENROL. (% OF SECONDARY)                                 |                            | 23.5        | 11.1   | 35.0   | 10.1                          | 33.7                      |
| PUPIL-TEACHER RATIO  |                            |             |        |  |                               |                           |
| PRIMARY  |                            | 61.1        | 47.5   | 39.2   | 34.1                          | 29.9                      |
| SECONDARY  |                            | 15.8        | 27.8   | 20.4   | 23.7                          | 16.7                      |
| ADULT LITERACY RATE (PERCENT)                                      |                            | 15.5        | 24.0/g | 62.0   | 43.3                          | 79.1                      |
| <b>CONSUMPTION</b>   |                            |             |        |  |                               |                           |
| PASSENGER CARS PER THOUSAND  | POPULATION                 | 10.5        | 13.0   | 18.3/g   | 17.8                          | 42.0                      |
| RADIO RECEIVERS PER THOUSAND                                       | POPULATION                 | 40.3        | 75.7   | 94.8   | 131.3                         | 270.5                     |
| TV RECEIVERS PER THOUSAND  | POPULATION                 | 0.1         | 14.0   | 48.4   | 44.1                          | 107.7                     |
| NEWSPAPER ("DAILY GENERAL  | INTEREST") CIRCULATION PER |             |        |  |                               |                           |
| THOUSAND POPULATION  |                            | 19.0        | 16.0   | 43.3   | 31.5                          | 63.7                      |
| CINEMA ANNUAL ATTENDANCE PER CAPITA                                |                            | 2.0         | ..     | 1.5/d  | 1.7                           | 2.7                       |
| <b>LABOR FORCE</b>   |                            |             |        |  |                               |                           |
| TOTAL LABOR FORCE (THOUSANDS)                                      |                            | 1137.9      | 1214.8 | 1621.1   | ..                            | ..                        |
| FEMALE (PERCENT)   |                            | 6.0         | 7.7    | 8.3  | 10.6                          | 24.4                      |
| AGRICULTURE (PERCENT)  |                            | 56.0        | 50.0   | 34.0   | 42.4                          | 31.3                      |
| INDUSTRY (PERCENT)   |                            | 18.0        | 21.0   | 33.0   | 27.6                          | 23.0                      |
| <b>PARTICIPATION RATE (PERCENT)</b>                                |                            |             |        |  |                               |                           |
| TOTAL  |                            | 27.0        | 23.7   | 25.7   | 26.0                          | 33.6                      |
| MALE   |                            | 50.2        | 44.2   | 46.5   | 46.2                          | 50.4                      |
| FEMALE   |                            | 3.3         | 3.6    | 4.3  | 5.6                           | 16.8                      |
| <b>ECONOMIC DEPENDENCY RATIO</b>                                   |                            |             |        |  |                               |                           |
|  |                            | 1.8         | 2.1    | 1.8  | 1.9                           | 1.3                       |
| <b>INCOME DISTRIBUTION</b>   |                            |             |        |  |                               |                           |
| PERCENT OF PRIVATE INCOME RECEIVED BY                              |                            |             |        |  |                               |                           |
| HIGHEST 5 PERCENT OF HOUSEHOLDS                                    |                            | ..          | ..     | 17.0/h   | ..                            | ..                        |
| HIGHEST 20 PERCENT OF HOUSEHOLDS                                   |                            | ..          | ..     | 42.0/h   | ..                            | ..                        |
| LOWEST 20 PERCENT OF HOUSEHOLDS                                    |                            | ..          | ..     | 6.0/h  | ..                            | ..                        |
| LOWEST 40 PERCENT OF HOUSEHOLDS                                    |                            | ..          | ..     | 15.0/h   | ..                            | ..                        |
| <b>POVERTY TARGET GROUPS</b>                                       |                            |             |        |  |                               |                           |
| ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)          |                            |             |        |  |                               |                           |
| URBAN  |                            | ..          | ..     | 204.0/d  | 279.2                         | ..                        |
| RURAL  |                            | ..          | ..     | 97.0/d   | 178.6                         | 184.1                     |
| ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)          |                            |             |        |  |                               |                           |
| URBAN  |                            | ..          | ..     | 193.0/d  | 403.6                         | 518.0                     |
| RURAL  |                            | ..          | ..     | 193.0/d  | 285.6                         | 371.1                     |
| ESTIMATED POPULATION BELOW ABSOLUTE POVERTY INCOME LEVEL (PERCENT) |                            |             |        |  |                               |                           |
| URBAN  |                            | ..          | ..     | 20.0/d   | 22.1                          | ..                        |
| RURAL  |                            | ..          | ..     | 15.0/d   | 30.9                          | ..                        |

.. Not available  
. Not applicable.

NOTES

/a The group averages for each indicator are population-weighted arithmetic means. Coverage of countries among the indicators depends on availability of data and is not uniform.

/b Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1978 and 1980.

/c Due to emigration population growth rate is lower than rate of natural increase; /d 1977; /e 1976; /f 1962; /g 1966; /h 1975.

TUNISIA - ECONOMIC INDICATORS

Population: 6.5 million (mid-1981)  
GNP per Capita: \$1,420 (1981)

| Indicator                 | Amount<br>(million US\$<br>at current prices)<br>1981 | Annual Growth Rates<br>(at 1980 prices) |      |      |       |       |           |      |      |      |      |      |
|---------------------------|---|---|------|------|-------|-------|-----------|------|------|------|------|------|
|                           |   | Actual                                  |      |      |       |       | Projected |      |      |      |      |      |
|                           |   | 1977                                    | 1978 | 1979 | 1980  | 1981  | 1982      | 1983 | 1984 | 1985 | 1986 | 1987 |
| <b>NATIONAL ACCOUNTS</b>  |   |   |      |      |       |       |           |      |      |      |      |      |
| Gross domestic product /1 | 8,224.0   | 5.3                                     | 7.1  | 7.1  | 6.0   | 5.0   | 3.8       | 7.3  | 6.0  | 5.8  | 5.6  | 5.3  |
| Agriculture               | 1,111.2   | -10.2                                   | 4.5  | -4.8 | 6.1   | 9.0   | -4.3      | 11.5 | 4.0  | 3.9  | 3.7  | 3.5  |
| Industry                  | 2,663.6   | 9.8                                     | 9.0  | 11.9 | 9.9   | 2.1   | 3.9       | 7.5  | 7.3  | 7.0  | 6.7  | 6.4  |
| Services                  | 3,329.3   | 5.6                                     | 7.4  | 8.7  | 3.9   | 6.4   | 6.5       | 6.3  | 6.1  | 5.9  | 5.7  | 5.5  |
| Consumption               | 6,350.7   | 10.4                                    | 5.8  | 4.6  | 9.9   | 7.0   | 7.0       | 4.1  | 7.4  | 6.3  | 4.1  | 5.3  |
| Gross investment          | 2,539.5   | 6.9                                     | 12.9 | 3.9  | 5.8   | 9.2   | -5.0      | 8.8  | 1.1  | 1.0  | 1.8  | 3.1  |
| Exports of goods and NFS  | 3,475.1   | 5.5                                     | 8.2  | 23.3 | 0.7   | 2.0   | 4.4       | 8.3  | 6.9  | 8.0  | 13.4 | 8.2  |
| Imports of goods and NFS  | 4,141.4   | 16.7                                    | 9.6  | 14.3 | 7.2   | 8.4   | 4.0       | 3.5  | 6.2  | 5.8  | 7.8  | 6.9  |
| Gross national product    | 8,292.8   | 5.8                                     | 7.9  | 7.5  | 6.5   | 5.2   | 3.6       | 7.2  | 5.9  | 5.5  | 5.3  | 5.2  |
| Gross national savings    | 1,942.1   | -7.2                                    | 14.8 | 21.8 | -7.2  | -0.8  | -19.4     | 17.8 | -2.0 | 0.5  | 7.9  | 4.6  |
| <b>PRICES</b>             |   |   |      |      |       |       |           |      |      |      |      |      |
| GDP deflator              |   | 76.0                                    | 80.1 | 88.3 | 100.0 | 109.7 |           |      |      |      |      |      |
| Exchange rate             |   | 2.33                                    | 2.40 | 2.46 | 2.47  | 2.02  |           |      |      |      |      |      |

|                          | Share of GDP at market prices (%)<br>(at current prices) |       |       |       |       |       | Average Annual Increase (%)<br>(at constant prices) |         |         |         |         |
|--------------------------|--|-------|-------|-------|-------|-------|---|---------|---------|---------|---------|
|                          | 1971   | 1976  | 1981  | 1986  | 1987  | 1991  | 1971-76   | 1976-81 | 1981-86 | 1982-87 | 1986-91 |
|                          | Gross domestic product /1                                | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0   | 8.8     | 6.1     | 5.7     | 6.0     |
| Agriculture              | 18.8   | 18.1  | 13.5  | 13.0  | 12.7  | 12.1  | 8.2   | 0.7     | 3.6     | 5.3 /2  | 3.5     |
| Industry                 | 20.6   | 25.9  | 32.4  | 32.4  | 32.7  | 33.7  | 10.2  | 8.5     | 6.5     | 7.0     | 5.8     |
| Services                 | 47.7   | 42.9  | 40.5  | 41.6  | 41.7  | 41.9  | 8.3   | 6.4     | 6.1     | 5.9     | 5.1     |
| Consumption              | 82.0   | 77.5  | 77.2  | 82.1  | 82.1  | 79.6  | 9.6   | 7.5     | 5.8     | 5.4     | 4.0     |
| Gross investment         | 20.0   | 30.4  | 30.9  | 24.6  | 24.1  | 23.8  | 14.1  | 7.7     | 1.4     | 3.1     | 4.2     |
| Exports of goods and NFS | 23.8   | 29.1  | 42.3  | 41.2  | 42.5  | 45.5  | 5.6   | 7.6     | 8.2     | 9.0     | 6.1     |
| Imports of goods and NFS | 25.8   | 37.1  | 50.4  | 47.9  | 48.7  | 48.9  | 13.1  | 11.2    | 5.5     | 6.0     | 4.0     |
| Gross national product   | 99.6   | 98.7  | 100.8 | 99.6  | 99.4  | 99.1  | 8.5   | 6.6     | 5.5     | 5.8     | 4.9     |
| Net factor income        | -0.4   | -1.3  | 0.8   | -0.4  | -0.6  | -0.9  | -   | -       | -       | -       | -       |
| Gross national savings   | 17.6   | 21.1  | 23.6  | 17.5  | 17.3  | 19.5  | 2.9   | 3.6     | 0.2     | 5.5     | 8.0     |

As % of GDP  
(at current prices)

**PUBLIC FINANCE**

|                            | 1971 | 1976 | 1981 |
|----------------------------|------|------|------|
| Current revenue            | 21.4 | 24.2 | 30.0 |
| Current expenditure        | 18.9 | 18.5 | 22.3 |
| Surplus (+) or deficit (-) | 2.5  | 5.7  | 7.8  |
| Capital expenditure        | 6.9  | 11.4 | 10.6 |
| Foreign financing          | 3.2  | 1.7  | 1.4  |

1971-76      1976-81      1981-86      1982-87      1986-91

**OTHER INDICATORS**

|                                | 1971-76 | 1976-81 | 1981-86 | 1982-87 | 1986-91 |
|--------------------------------|---------|---------|---------|---------|---------|
| GNP growth rate (%)            | 8.4     | 6.6     | 5.5     | 5.8     | 4.9     |
| GNP per capita growth rate (%) | 5.4     | 4.0     | 2.8     | 3.1     | 2.2     |
| ICOR                           | 2.7     | 5.5     | 5.2     | 4.8     | 5.3     |
| Marginal savings rate          | 24.0    | 25.2    | 20.6    | 23.0    | 30.2    |
| Import elasticity              | 1.51    | 1.84    | 0.96    | 1.0     | 0.82    |

/1 GDP at market prices and components at factor cost.

/2 This growth rate reflects the decline expected in 1982; a least square growth rate for the same period (1982-87) is 4.9, but the long-term projections for agriculture are better reflected in the growth rates for the individual years shown above.

TUNISIA - EXTERNAL TRADE

Population: 6.5 million (mid-1981)  
GNP per Capita: \$1,420 (1981)

| Indicator                 | Amount<br>(million US\$<br>at current prices)<br>1981 | Annual Growth Rates<br>(at 1980 Prices)                     |       |       |   |       |   |  |         |         |         |         |
|---------------------------|---|---|-------|-------|---|-------|---|--|---------|---------|---------|---------|
|                           |   | Actual  |       |       |   |       | Projected   |  |         |         |         |         |
|                           |   | 1977  | 1978  | 1979  | 1980  | 1981  | 1982  | 1983   | 1984    | 1985    | 1986    | 1987    |
| <b>EXTERNAL TRADE</b>     |   |   |       |       |   |       |   |  |         |         |         |         |
| Merchandise exports       | 2,434.2   | 9.7   | 9.6   | 20.7  | 0.8   | -3.7  | 3.6   | 8.8  | 6.7     | 8.2     | 16.0    | 8.4     |
| Crude oil                 | 1,249.7   | 12.4  | 12.8  | 12.4  | 0.2   | -5.0  | 1.1   | 2.7  | -1.8    | 1.8     | -0.1    | 3.7     |
| Other primary             | 125.8   | 4.9   | -15.7 | 25.1  | -11.9   | -3.3  | 11.6  | 8.7  | 8.8     | 9.0     | 8.9     | 7.7     |
| Manufactures              | 1,058.7   | 6.8   | 10.4  | 33.3  | 3.6   | 16.3  | 5.3   | 14.9   | 14.3    | 13.2    | 28.1/2  | 11.0    |
| Merchandise imports       | 3,801.5   | 14.1  | 10.7  | 15.7  | 7.7   | 9.5   | 3.7   | 3.0  | 6.0     | 5.6     | 7.8     | 7.1     |
| Food                      | 421.4   | 9.6   | 7.7   | 39.6  | -6.8  | 9.4   | 2.9   | 1.1  | 2.7     | 5.3     | 5.0     | -4.8    |
| Petroleum                 | 756.6   | 13.8  | 15.1  | 9.7   | 13.5  | 13.9  | 18.5  | 0.6  | 11.3    | 9.2     | 21.7/2  | 13.8    |
| Machinery and equipment   | 979.5   | 5.5   | 15.4  | -2.6  | -4.4  | 32.9  | -7.1  | -1.0   | -0.7    | 0.0     | 0.0     | 7.7     |
| Others                    | 1,644.0   | 21.6  | 6.5   | 24.9  | 15.3  | -2.3  | 4.4   | 6.7  | 7.9     | 7.1     | 5.6     | 5.9     |
|                           |   | Price Index   |       |       |   |       | Price Index   |  |         |         |         |         |
| <b>PRICES</b>             |   |   |       |       |   |       |   |  |         |         |         |         |
| Export price index        |   | 54.8  | 58.7  | 75.5  | 100.0   | 118.6 | 117.4   | 122.5  | 131.6   | 141.8   | 152.0   | 163.5   |
| Import price index        |   | 72.6  | 76.6  | 85.3  | 100.0   | 116.8 | 127.4   | 135.6  | 147.6   | 160.2   | 172.2   | 184.3   |
| Terms of trade index      |   | 75.5  | 76.6  | 88.5  | 100.0   | 101.5 | 92.1  | 90.3   | 89.2    | 88.5    | 88.3    | 88.7    |
|                           |   | Composition of Merchandise Trade (%)<br>(at current prices) |       |       |   |       | Average Annual Increase (%)<br>(at constant prices) |  |         |         |         |         |
|                           |   | 1971  | 1976  | 1981  | 1986  | 1987  | 1991  | 1971-76  | 1976-81 | 1981-86 | 1982-87 | 1986-91 |
| Exports                   | 100.0   | 100.0   | 100.0 | 100.0 | 100.0   | 100.0 | 100.0   | 4.1  | 8.7     | 8.6     | 9.6     | 5.2     |
| Crude oil                 | 24.5  | 40.9  | 53.7  | 36.3  | 35.2  | 30.7  | 30.7  | 4.6  | 6.3     | 0.7     | 1.3     | -0.1    |
| Other primary             | 19.2  | 13.4  | 5.2   | 5.6   | 5.5   | 5.5   | 5.5   | -5.4   | -1.2    | 9.4     | 8.6     | 5.8     |
| Manufactures              | 56.3  | 45.7  | 41.1  | 58.1  | 59.3  | 63.7  | 63.7  | 6.4  | 13.6    | 14.9    | 16.2    | 7.7     |
| Imports                   | 100.0   | 100.0   | 100.0 | 100.0 | 100.0   | 100.0 | 100.0   | 13.1   | 11.5    | 5.2     | 5.9     | 3.9     |
| Food                      | 21.2  | 12.3  | 11.1  | 11.0  | 9.8   | 6.8   | 6.8   | 0.6  | 10.9    | 3.4     | 1.8     | -5.3    |
| Petroleum                 | 3.9   | 11.1  | 19.9  | 22.9  | 24.9  | 31.0  | 31.0  | 29.2   | 13.2    | 11.8    | 10.9    | 8.6     |
| Machinery and Equipment   | 30.1  | 31.9  | 25.8  | 17.9  | 17.9  | 13.2  | 13.2  | 13.5   | 10.5    | -1.8    | 1.2     | -1.0    |
| Others                    | 44.8  | 44.7  | 43.2  | 48.2  | 47.4  | 49.0  | 49.0  | 10.6   | 12.9    | 6.3     | 6.6     | 4.8     |
|                           |   | Share of Trade with<br>Industrial Countries (%)             |       |       | Share of Trade with<br>Developing Countries (%) |       |   | Share of Trade with<br>Capital Surplus Oil Exporters (%) |         |         |         |         |
|                           |   | 1970  | 1975  | 1980  | 1970  | 1975  | 1980  | 1970   | 1975    | 1980    |         |         |
| <b>DIRECTION OF TRADE</b> |   |   |       |       |   |       |   |  |         |         |         |         |
| Exports                   |   | 62.6  | 48.6  | n.a.  | 23.4  | 41.4  | n.a.  | 14.0   | 10.0    | n.a.    |         |         |
| Imports                   |   | 62.9  | 67.1  | n.a.  | 33.7  | 25.7  | n.a.  | 3.4  | 7.2     | n.a.    |         |         |

/1 Constant price data at 1980 prices.

/2 Increase in refining capacity.

BALANCE OF PAYMENTS, EXTERNAL CAPITAL AND DEBT  
(million US\$ at current prices)

Population: 6.5 million (mid-1981)  
GNP per Capita: \$1,420 (1981)

|  | Actual /1 |         |         |         |         | Projected |         |          |          |          |
|--|-----------|---------|---------|---------|---------|-----------|---------|----------|----------|----------|
|  | 1971      | 1976    | 1979    | 1980    | 1981    | 1982      | 1983    | 1986     | 1987     | 1991     |
| <b>BALANCE OF PAYMENTS</b>             |           |         |         |         |         |           |         |          |          |          |
| Net exports of goods & services        | -57.4     | -417.0  | -356.0  | -472.6  | -607.5  | -934.4    | -893.3  | -1,171.4 | -1,265.7 | -1,258.7 |
| Exports of goods & services            | 469.4     | 1,479.5 | 3,137.5 | 3,912.3 | 3,902.4 | 4,120.5   | 4,680.2 | 7,403.0  | 8,546.4  | 13,632.1 |
| Imports of goods & services            | 526.8     | 1,896.5 | 3,493.5 | 4,384.9 | 4,509.9 | 5,054.9   | 5,573.5 | 8,574.4  | 9,812.1  | 14,890.8 |
| Net transfers /2                       | 52.0      | 52.7    | 61.0    | 100.0   | 36.4    | 32.4      | 32.4    | 24.3     | 24.0     | 24.0     |
| Current account balance                | -5.4      | -364.3  | -295.0  | -372.6  | -571.1  | -902.0    | -860.9  | -1,147.1 | -1,241.7 | -1,234.7 |
| Direct private investment              | 27.6      | 102.6   | 50.9    | 236.0   | 354.6   | 400.0     | 300.0   | 400.0    | 400.0    | 500.0    |
| MLT loans (net)                        | 55.3      | 167.9   | 494.2   | 323.9   | 188.0   | 502.0     | 651.0   | 916.3    | 1,010.9  | 994.7    |
| Official                               | 59.2      | 130.4   | 198.5   | 270.9   | 262.2   | 434.4     | 416.1   | 423.6    | 476.1    | 690.0    |
| Private                                | -3.9      | 37.5    | 295.7   | 53.0    | -74.2   | 67.6      | 234.9   | 492.7    | 534.8    | 304.7    |
| Other capital                          | 13.7      | 55.1    | -126.2  | -122.4  | 134.2   | -         | -       | -        | -        | -        |
| Change in reserves                     | -91.2     | 38.7    | -123.9  | -64.9   | -105.7  | -         | -90.2   | -169.2   | -169.2   | -260.0   |
| International reserves                 | 114.8     | 304.5   | 415.5   | 455.7   | 568.6   | 568.6     | 658.8   | 1,087.4  | 1,256.6  | 2,176.6  |
| Reserves as months of imports          | 2.6       | 2.2     | 1.6     | 1.4     | 1.6     | 1.4       | 1.4     | 1.5      | 1.5      | 1.7      |
| <b>GROSS DISBURSEMENTS</b>             |           |         |         |         |         |           |         |          |          |          |
| Official grants                        | 35.5      | 50.2    | 50.7    | 41.5    | 26.3    | 32.4      | 32.4    | 24.3     | 24.0     | 24.0     |
| Gross disbursements of MLT loans       | 105.2     | 229.5   | 643.8   | 535.1   | 514.9   | 842.9     | 1,048.4 | 1,485.1  | 1,689.7  | 2,247.1  |
| Concessional                           | 61.0      | 104.0   | 154.5   | 217.5   | 284.1   | 343.8     | 326.2   | 284.4    | 309.2    | 427.2    |
| Bilateral                              | 52.8      | 95.1    | 153.7   | 197.3   | 277.6   | 256.6     | 264.6   | 238.6    | 255.2    | 337.6    |
| IDA                                    | 4.8       | 8.9     | 0.2     | 1.0     | 0.6     | 1.0       | -       | -        | -        | -        |
| Other multilateral                     | 3.4       | 0.0     | 0.6     | 19.2    | 5.9     | 86.2      | 61.6    | 45.7     | 54.0     | 89.6     |
| Non-concessional                       | 44.2      | 125.5   | 489.3   | 317.6   | 230.8   | 499.1     | 722.2   | 1,200.7  | 1,380.5  | 1,819.9  |
| Private                                | 28.8      | 60.1    | 377.6   | 191.4   | 117.3   | 294.2     | 475.6   | 801.5    | 918.7    | 1,080.7  |
| Official export credits                | 3.2       | 9.9     | 42.6    | 52.5    | 36.3    | 76.2      | 96.3    | 214.5    | 268.5    | 522.3    |
| IBRD                                   | 12.2      | 25.3    | 55.4    | 51.1    | 53.5    | 83.6      | 123.2   | 155.1    | 159.9    | 173.9    |
| Other multilateral                     | -         | 30.2    | 13.7    | 22.6    | 23.7    | 45.1      | 27.1    | 29.6     | 33.4     | 43.0     |
| Other multilateral                     | -         | -       | -       | -       | -       | -         | -       | -        | -        | -        |
| <b>EXTERNAL DEBT</b>                   |           |         |         |         |         |           |         |          |          |          |
| Debt Outstanding and Disbursed         | 619.5     | 1,166.2 | 2,996.4 | 3,188.8 | 3,370.7 | 4,024.2   | 4,675.3 | 7,360.9  | 8,371.9  | 12,611.8 |
| Official                               | 440.0     | 971.6   | 1,830.7 | 2,024.0 | 2,280.3 | 2,760.0   | 3,185.2 | 4,423.2  | 4,899.3  | 7,422.2  |
| IBRD                                   | 39.3      | 127.9   | 232.0   | 269.0   | 303.8   | 345.3     | 426.6   | 725.8    | 811.9    | 1,049.5  |
| IDA                                    | 21.1      | 64.1    | 67.3    | 67.9    | 67.9    | 68.9      | 68.1    | 65.3     | 64.1     | 58.2     |
| Other                                  | 379.6     | 779.6   | 1,531.4 | 1,687.1 | 1,908.6 | 2,352.8   | 2,690.5 | 3,632.1  | 4,023.3  | 6,314.5  |
| Private                                | 179.5     | 194.6   | 1,165.7 | 1,164.8 | 1,090.4 | 1,255.2   | 1,490.1 | 2,937.7  | 3,472.5  | 5,189.6  |
| Undisbursed debt                       | 352.5     | 1,109.5 | 1,694.6 | 1,685.5 | 1,170.6 | 1,539.9   | 1,515.1 | 1,851.4  | 2,143.4  | 3,036.9  |
| <b>DEBT SERVICE</b>                    |           |         |         |         |         |           |         |          |          |          |
| Total debt service payments            | 69.8      | 98.6    | 308.8   | 432.7   | 547.6   | 567.6     | 642.4   | 991.5    | 1,177.9  | 2,037.2  |
| Interest                               | 19.9      | 36.9    | 159.2   | 221.5   | 220.7   | 226.6     | 245.0   | 422.6    | 499.2    | 784.9    |
| Payments as % exports                  | 14.9      | 6.7     | 9.8     | 10.9    | 13.9    | 13.8      | 13.7    | 13.4     | 13.8     | 14.9     |
| Payments as % GNP                      | 4.1       | 2.2     | 4.3     | 5.1     | 6.6     | 6.1       | 5.9     | 6.1      | 6.3      | 6.8      |
| Average interest rate of new Loans (%) | 4.9       | 5.4     | 7.1     | 7.1     | 6.7     | 7.2       | 8.0     | 8.2      | 7.3      | 7.4      |
| Official                               | 4.6       | 4.3     | 5.6     | 6.2     | -       | -         | -       | -        | -        | -        |
| Private                                | 6.1       | 7.9     | 9.8     | 11.2    | -       | -         | -       | -        | -        | -        |
| Average maturity of new Loans (years)  | 23.3      | 16.6    | 15.8    | 17.3    | 19.6    | 16.7      | 15.2    | 14.5     | 14.9     | 15.0     |
| Official                               | 26.2      | 20.4    | 19.4    | 19.1    | -       | -         | -       | -        | -        | -        |
| Private                                | 13.8      | 8.6     | 9.2     | 9.4     | -       | -         | -       | -        | -        | -        |

As % of Debt Outstanding  
at End of Most Recent  
Year (1980)

DEBT STRUCTURE

|  |      |
|--|------|
| Maturity structure of debt outstanding (%) |      |
| Amortization due within 5 years            | 36.8 |
| Amortization due within 10 years           | 64.9 |
| Interest structure of debt outstanding (%) |      |
| Interest due within first year             | 4.5  |

/1 Preliminary estimates for 1981.

/2 Including grants.

MAIN ASSUMPTIONS FOR MACROECONOMIC PROJECTIONS 1981-87

1. This attachment reviews the main assumptions of the set of projections framing the CPP period; they are summarized in the preceding tables. These assumptions reflect the Bank's views on a financially viable growth path for the eighties, taking into account both the Fifth Plan (1977-81) performance and the Sixth Plan (1982-86) macroeconomic scenario which was discussed in Tunisia in March 1982 in conjunction with the preparation of a Plan Review Report. The Bank's main conclusions have been discussed with the Government. It should be noted that the CPP period (1983-87) exceeds the Plan period by one year (1987).

2. A factor of uncertainty, specific to the present set of projections, is the energy sector prospects. In this set of projections, we make rather conservative assumptions. On the supply side, a domestic production of oil of 5.5 million t.o.e. (5.8 on average in 1979-81), and stable until 1991, will require the exploitation of presently known secondary oil fields beginning towards 1986. By 1986, about 1.4 million t.o.e. of gas will be available using the royalty gas from the Algeria-Italy pipeline and the newly discovered gas-field of El Franig, but excluding Miskar. On the demand side, an annual growth of 8.5 percent, compared to 10.4 percent in the seventies, assumes a vigorous conservation policy (now being defined with a Bank financed technical assistance loan in FY83) and price and tariff adjustments (a 15 to 17 percent increase was already applied in 1981). This rate of growth will bring domestic demand to about 7.4 million t.o.e. of oil and gas by 1991, compared to a projected supply of 6.9 million t.o.e. Policies therefore aim at preventing Tunisia from becoming a net energy importer before the end of the decade.

3. Domestic output is projected, based largely on the Sixth Plan's assumptions (annual growth rates in percent and in 1980 prices):

|                      | 1976-81<br>(Actuals) | 1981-86<br>(Plan forecast) | 1981-87<br>(CPP projections) |
|----------------------|----------------------|----------------------------|------------------------------|
| Agriculture          | 0.7 /1               | 5.2                        | 3.7                          |
| Industry             | 8.5                  | 6.6                        | 6.5                          |
| Non-manufacturing    | 8.2                  | 3.6                        | 4.5                          |
| Manufacturing        | 9.8                  | 11.0                       | 10.0                         |
| Construction         | 6.8                  | 2.7                        | 4.0                          |
| Services             | 6.4                  | 6.7                        | 6.1                          |
| Administration       | 7.1                  | 6.8                        | 7.5                          |
| Others               | 6.2                  | 6.7                        | 5.5                          |
| GDP (at factor cost) | 6.0                  | 6.4                        | 5.8                          |

/1 Average annual rate of 4 percent over the 1971-81 period (least square method).

Most of the sectoral prospects were analyzed for the Plan Review Report. While there is no major disagreement, our projections differ in the following ways: (a) for agriculture, the annual growth projected by the Plan will be difficult to achieve even with favorable weather conditions because the set of



policy measures to back up such a change in performance is still in the process of being identified and would take some time to bear the expected results. It would also require a 7 to 8 percent annual rate from 1983 to 1986 to make up for the expected low 1982 crop level; (b) the energy output projection follows the assumptions outlined in para. 2, but we consider that crude oil should continue to be exported along with domestically refined products in excess of local needs after 1985; and (c) construction should grow more rapidly, reflecting strong housing demand (para. 6), and so should administration, to meet education and health personnel requirements.

4. To alleviate the pressure on the economy brought about by the rapid decrease in net oil export earnings, every attempt should be made to improve export performance in other sectors. The following assumptions were used to project export earnings for 1981-87 (average annual rates in percent based on 1980 fob price levels):

|  | <u>1976-81 (actuals) /1</u> |                 |              | <u>1981-87 (projections)</u> |              |
|--|-----------------------------|-----------------|--------------|------------------------------|--------------|
|  | <u>Value</u>                | <u>Quantity</u> | <u>Price</u> | <u>Quantity</u>              | <u>Price</u> |
| <u>Total Exports</u>                       | <u>25.0</u>                 | <u>7.6</u>      | <u>16.1</u>  | <u>8.2</u>                   | <u>6.0</u>   |
| <u>NFS</u>                                 | <u>18.1</u>                 | <u>5.5</u>      | <u>11.9</u>  | <u>7.4</u>                   | <u>7.0</u>   |
| Tourism                                    | 20.0                        | 7.0             | 12.2         | 6.0                          | 7.0          |
| Other NFS                                  | 15.6                        | 3.5             | 11.7         | 9.0                          | 7.0          |
| <u>Total Goods</u>                         | <u>28.9</u>                 | <u>8.7</u>      | <u>18.5</u>  | <u>8.6</u>                   | <u>5.5</u>   |
| Crude Petroleum                            | 34.8                        | 6.3             | 26.9         | 1.2                          | 6.2          |
| <u>Other primary</u>                       | <u>8.3</u>                  | <u>-1.2</u>     | <u>9.6</u>   | <u>9.1</u>                   | <u>6.0</u>   |
| Phosphate rock                             | -2.8                        | -10.9           | 9.0          | 6.2                          | 6.8          |
| Agricultural products                      | 20.4                        | 8.3             | 11.2         | 10.5                         | 5.7          |
| <u>Manufactures</u>                        | <u>27.0</u>                 | <u>13.6</u>     | <u>11.8</u>  | <u>14.3</u>                  | <u>5.6</u>   |
| Petroleum products                         | 42.8                        | 23.5            | 15.6         | 43.2 /2                      | 6.1          |
| Olive oil                                  | 9.1                         | 2.7             | 6.2          | 4.4                          | 7.0          |
| Processed food                             | 1.3                         | -9.0            | 11.3         | 9.2                          | 6.4          |
| Phosphate derivatives                      | 34.9                        | 14.9            | 17.4         | 7.6                          | 6.0          |
| Textiles                                   | 35.6                        | 21.9            | 11.2         | 12.5                         | 3.7          |
| Electrical/mechanical                      | 33.3                        | 19.7            | 11.3         | 18.8                         | 6.4          |
| Other goods                                | 20.0                        | 8.0             | 11.2         | 19.6                         | 3.8          |
| <u>Memo item:</u>                          |                             |                 |              |                              |              |
| Total Petroleum                            | 35.1                        | 6.8             | 26.6         | 5.7                          | 6.2          |
| <u>Total exports without<br/>Petroleum</u> | <u>20.6</u>                 | <u>8.2</u>      | <u>11.5</u>  | <u>9.5</u>                   | <u>5.9</u>   |

/1 Sources: Ministry of Planning, Institut National de la Statistique, World Bank Commodity Division, and staff estimates.

/2 Increase reflects exports of new refinery from 1986.

5. Because diversifying export earnings from crude oil is a difficult endeavor, import policy requires careful management particularly because recent trends are difficult to interpret. Import elasticities were high on average during the 1977-81 Plan. Besides non-food final goods, the highest import elasticities were recorded for energy <sup>1/</sup> and food, the latter reflecting growing domestic deficits. An overall energy planning (para. 2) should help the country limit its energy requirements, and food demand will be increasingly met by domestic production in view of the top priority given to agriculture in the Sixth Plan. Other imports are linked to domestic demand for intermediate and equipment goods. Partial substitution will be promoted under the revision of the present incentive system which discriminates against the domestic supply of non-final goods. Another key factor for maintaining the overall import elasticity to GDP around 1.0 will be the control of non-food final imports. The following assumptions are used to project import requirements (based on 1980 cif prices):

| Imports            | Aggregates<br>of reference | Elasticity Level /1 |                | Price Projection |           |
|--------------------|----------------------------|---------------------|----------------|------------------|-----------|
|                    |                            | 1976-81             | 1981-87        | 1981-87          |           |
|                    |                            | Current<br>prices   | 1980<br>prices | 1980 prices      | % p.a. /3 |
| Energy products    | GDP                        | 2.41                | 2.16           | 1.77             | 5.4       |
| Food products      | Final consumpt.            | 1.31                | 1.45           | 0.55             | 9.4       |
| Other final goods  | Final consumpt.            | 1.42                | 1.68           | 0.87             | 7.8       |
| Intermediate goods | Industry                   | 1.06                | 1.48           | 1.26             | 9.3       |
| Equipment          | Fixed investment           | 1.07                | 1.01           | - /2             | 7.4       |
| Goods              | GDP                        | 1.53                | 1.88           | 0.88             | 7.9       |
| (without energy)   | GDP                        | 1.30                | 1.80           | 0.80             | 8.5       |
| NFS                | GDP                        | 1.04                | 1.31           | 1.36             | 7.0       |
| Total imports      | GDP                        | 1.46                | 1.84           | 0.98             | 7.8       |

/1 Calculated by the ratio between average annual growth rates.

/2 Negative growth rate

/3 Using the International price index as a benchmark.

For the 1981-86 period, the CPP-projected import to GDP elasticity differs significantly from that underlying the Sixth Plan (0.96 compared to 0.43). This difference reflects a more cautious view on the possibility of drastically

1/ Tunisia pursued the policy of exporting its crude at a premium because of its quality and of importing a lower-grade crude for the Bizerte refinery.

changing the structural linkages between domestic demand and foreign goods and services over a five-year period. This difference in projected import elasticities aggravates the external trade deficit by about \$210 million in 1986, causing external public debt, outstanding and disbursed, to reach 45 percent of GDP in the CPP projection instead of 42 percent in the Plan scenario. Consequently, this is reflected in relatively less domestic savings mobilization.

6. The Sixth Plan investment program is projected in the CPP at TD 5,583 million in 1980 prices, a 17 percent increase from the Fifth Plan. Expressed in 1980 prices, it would decrease the ICOR from 5.5 for 1976-81 to 5.2 for 1981-86, and decrease the ratio of investment to GDP from 30 percent in 1981 to 25 percent in 1986. This level of investment is a minimum in view of the employment creation objective, and requires priority to be given to labor-intensive techniques; it is expected to create a maximum of 290,000 permanent jobs, while the increase in job seekers is projected to reach 320,000. A careful review of investment potentials by sector carried out for the Plan Review Report largely supports the sectoral investment allocation envisaged by the Tunisian planners, in particular, a high level of investments in agriculture where project preparation is to be reinforced by a technical assistance loan in FY83. This review indicates, however, that the Plan forecast overestimated absorptive capacity in manufacturing and underestimated the potential needs in two sectors: oil and gas exploration (to maintain domestic output at the targeted level (para. 2), and in housing where private demand is expected to remain strong, while production, with proper incentives, offers the advantage of promoting the use of unskilled labor.

7. The overall balance of domestic resources combined with imports allows final consumption to grow at 5.7 percent per annum (3.0 percent per capita) for 1981-87. The marginal propensity to save will decrease from 0.25 for 1976-81 to about 0.21 percent for 1981-87; this partly reflects the decline in the heavily taxed oil production, which is likely to result in a sizable decline in the current budget surplus. A better performance in controlling domestic demand and improving the savings rate would imply structural changes; some of these are already in preparation, but there are doubts that they could become operative rapidly. The Government recently gave two conflicting signals in that respect. On one hand, it started a series of sharp price and tariff increases (food like meat, milk, sugar; public utilities like electricity and water; petroleum products, animal feed, transports), adjusted interest rates in June 1982, softened the price control system in January 1982, and allowed a sizable devaluation of the Dinar. On the other hand, under Trade Union's pressure, it allowed a sizable wage increase in March 1982, above the combined rate of inflation and productivity.

8. The balance of payments projections reflect the Bank's most recent commodity price projections. Other factor payments reflect the uncertainty concerning workers' remittances: the low growth in real terms combines a pessimistic prospect for the EEC labor markets with more promising prospects in the Middle East. The main novelty of these projections come from an increase in direct private foreign investments. This should result from a

large program in oil and gas exploration (para 2), and the opening policy recently announced by the Government to be reflected in the reforms of the incentive system and administrative controls. Another favorable impact is expected from the recent creation of several development banks in association with foreign investors.<sup>1/</sup> Projected foreign investment is equivalent to 12 percent of total fixed investments over the period 1982-87, as compared to 8 percent during the Fifth Plan. The current account deficit would increase from \$570 million in 1981 to about \$1.2 billion in 1987; compared to the CPP projection for 1986 (\$1.15 billion), the Plan is more optimistic, projecting this deficit to remain below \$1 billion. The CPP projections, however, do not contradict the need for controlling the increase in the foreign deficit but consider that the impact of the policy reform package outlined for the Sixth Plan will have a more progressive impact on the economy's high current import propensity. This difference of \$210 million in 1986 between the two projections does not endanger the country's creditworthiness (para. 9) but confirms how difficult restructuring the economy to the post-petroleum era will be (para. 10); in 1987, 39 percent of total fixed investment will be financed by foreign loan disbursements; the ratio was 22 percent in 1981.

9. External debt projections show that foreign indebtedness will start increasing substantially only after 1985. The ratio of debt service to total exports will increase from 11 percent in 1980 to 14 percent in 1987 and about 15 percent in 1991 with a 5.0 per GDP growth scenario (para. 10). For ODA loans, the allocation by sources remains roughly the same as for the 1976-1980 period with 70 percent from bilateral sources. ODA loans are limited to \$800 million per year for 1983-87 (\$430 million on average for 1976-80) of which \$150 million from IBRD. Non-concessional loans, however, will increase to about \$760 million per year for 1983-87 (\$300 million for 1976-80), so that average borrowing terms will slightly harden.

10. The economic prospects after 1987 require a careful monitoring of the present set of assumptions concerning production and export prospects in the oil sector (para. 2). Although press releases claimed that recent discoveries have showed positive prospects, the figures mentioned (up to 5 million t.o.e., almost a doubling of present domestic output) were not confirmed by recent Bank missions. Therefore, Tunisia should prepare the transition to the post-petroleum era, now that it is not under financial and political stress. In order to face the squeeze brought about by the declining petroleum export earnings, the economy will have to reduce overall domestic demand and promote non-oil exports. In that connection, the projections presently available (pages 1 to 3 of this Attachment) show that overall economic growth will have to be reduced to less than 5 percent p.a. by 1991. In sharp contrast with the last 15-year growth trends, this slow down of GDP growth is necessary to maintain the financing feasibility of current account deficits.

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<sup>1/</sup> Two of them with a \$100 million equity stock each are already functioning: the STUSID (with Saudi partners) and BTKD with Kuwaiti partners. Agreements were signed with Qatar and Algeria; others with Abu Dhabi, France and Morocco are being negotiated.

11. Besides the need for providing jobs for the fast-growing labor force (3 percent p.a.) and for reducing unemployment (15 percent in urban areas), the future Seventh Plan (1987-91) investment program will have to decide on (a) very capital-intensive investments to develop Tunisia's national resources: oil and gas (small secondary and off-shore fields are very expensive) and phosphate (a promising site in the North-West of the country would require complex infrastructure); and (b) large manufacturing units (cement, steel, heavy chemicals). In view of these constraints, it will be difficult for Tunisia to decrease its investment ratio to GDP further below 24 to 25 percent after 1987. Therefore, future prospects for financing economic growth require that Tunisia maintain a low level of indebtedness in the next years and restructure domestic savings mobilization to preserve its long-term creditworthiness.

TUNISIA: ECONOMIC AND SECTOR WORK PROGRAM  
FY83-FY87

Objectives and Priorities

1. During the 1980s, Tunisia will go through a transition period, from net exporter of petroleum, which helped finance rapid growth and development, to net importer of energy towards the end of the decade. This basic change in the economic structure will have to be supported by appropriate Government policies and programs. The body of the CPP identified five central themes that the Government needs to address to facilitate this transition process: employment, regional development, export promotion, demand management and resource mobilization, and public sector management.
2. The Bank's future ESW program is being proposed against the background of these priorities. Because of limited manpower, ESW will concentrate on areas where the Bank's expertise can be of the greatest benefit. The focus will be on helping the Tunisian authorities to set up a system of economic allocation signals (producer and consumer prices, taxes and subsidies, interest rates, labor costs, exchange rate) as a basis for a gradual liberalization of the present system of Government controls and intervention.

Relations with Tunisia

3. The execution of the ESWP is a key component of the Bank's future dialogue on economic strategy with the Tunisian Government and administrative institutions. This dialogue will continue and hopefully intensify the ongoing one. The exchange of ideas triggered by recent economic and sector reports 1/, gives some confidence that positive impacts on policy measures can be expected. Among recent measures reflecting Bank advice, we can mention sizeable price adjustments for agricultural products (in particular for the most distorted one - local animal feed), revision of the Investment Code in favor of job creation and development in backward regions, creation of a Special Fund for Small Scale Industries and Handicrafts, and simplification of price control procedures for manufactured products. To help prepare policy measures for the issues identified in recent ESW, sector-wide studies were programmed in project loans as well as in a Technical Assistance Loan (FY83) which will provide indispensable inputs for developing agricultural, energy and export promotion strategies. These studies include in particular two regional studies (North-West Rural Project, FY81), a review of effective protection (EMI Loan, FY82), and manpower planning (Education Loan, FY81). The dialogue has also created an awareness of social inequalities using the concepts of absolute poverty and basic needs promoted by the Bank. The IMF is discussing the exchange rate monitoring system with the Central Bank to avoid uncontrolled shifts in relative prices which would penalize domestic production of potentially exportable products. The IMF is also providing assistance for revising the fiscal system.

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1/ Social aspects of Development No. 2950-TUN, June 18, 1980; Review of Electrical and Mechanical Industries, No. 2666-TUN, June 5, 1980; Country Economic Memorandum, No. 3399-TUN September 19, 1981. In preparation for FY83 is a Plan Review Report, an Agricultural Sector Survey, a Housing Sector Survey, and Memoranda on Transport, Urban Transport and Education.

4. Certain of the conclusions of previous ESW have encountered some resistance among our Tunisian counterparts, either on theoretical or implementational grounds. Future ESW will seek more discussions on these specific issues, among which: the impact of input prices and credit conditions on agricultural productivity; the impact of relative production factor costs (wages and interest rates) on job creation and the promotion of labor-intensive production; the role of import liberalization and competition on industrial efficiency; and the need for exchanging across-the-board subsidies for group-targeted ones. One positive factor stems from the openness of the exchange of views on these controversial issues. To enhance the impact on the policy-making process, we will seek to further increase our counterparts' participation in ESW (para. 17).

#### Economic Work

5. Our country economic analysis will build on the Plan Review Report (FY82/83), which will be submitted to the Government in September 1982. During the preparation of this report we discussed with the Tunisian authorities the country's past economic performance, the investment strategy, as well as the overall and sectoral growth prospects during the Plan period (1982-86) and beyond. Emerging from these discussions is a set of policies and programs which we expect to analyze further in a number of specific studies. We plan to limit general country economic work to updating our knowledge through back-to-office reports (FY83, FY84 and FY87), a mid-term review of economic performance under the current Plan (FY85) and a review of the following Plan (1987-91) in late FY86. In view of the expected increasing pressure on the balance of payments, we will closely monitor the external debt.

6. Employment. As pointed out in the main text, unemployment is one of the most important problems facing the Tunisian economy. A special economic study in FY83 will analyze employment and training policies, against the sectoral and occupational supply and demand situation for manpower. Special attention will be given to the contribution of the informal sector and the agricultural sector to employment creation. This study will be closely coordinated with the manpower exercise scheduled for FY83-84.

7. Demand management and resource mobilization. In FY83, we will follow-up on the pricing policy and incentives measures in order to synthesize and deepen the results of the ongoing studies, viz. a shadow pricing analysis, an effective protection study /1, and an exercise simulating the impact of alternative incentive policies on economic performance at enterprise and sectoral levels. We will complete these micro studies with a macro level analysis, focussing on: a) costs of production factors (wage and interest rate policies) and potential for capital-labor substitution, to complement the study of employment scheduled for FY83; b) interest rates, to back up the domestic resource mobilization and credit policy analysis (scheduled for FY84); and c) exchange rate, to complement the industry sector study on competitiveness and export promotion (FY85). In FY84, we propose to carry out a first study of the financial system, which will analyze the role of financial institutions in the mobilization and allocation of domestic savings. It will cover the particular issues of promoting industrial credit and study the role of the newly created Development Banks.

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/1 This study is to be financed for an amount of \$200,000 through the EMI loan to BDET (FY82).

8. As regards public sector management, two studies will cover issues at the public enterprise level (FY84) and the overall public sector (FY86), focussing on management efficiency, financial viability and degree of Government intervention and control. These reports will rely on the pricing studies (see above) and on the Bank experience through lending to public entities.

9. As regards regional development and social policies, an FY85 special report will look into the feasibility and adequacy of Government policies aiming at decentralization of economic management and development of backward regions; this report will draw upon the findings of two ongoing regional studies covering the North-West and the Center-West, financed through the North-West Regional Development loan (FY81). In FY87 a special report will update the 1980 report on social aspects of development.

#### Sector Work

10. The SW program aims at supporting the sectoral strategies outlined in the CPP text. Three priority sectors were chosen: agriculture, manufacturing and mining, and energy. The Technical Assistance Loan, to become effective in FY83, includes, among others, studies for defining strategies and policies in those three sectors. In each, the following issues will get priority attention: pricing, public management and long-term development strategy. The latter subject reflects our view that the sectoral planning process in Tunisia needs to be reinforced.

11. For agriculture, the sector survey (FY82-FY83) resulted from a joint effort between the Ministry of Agriculture and the Bank. It identified the fundamental policy changes needed if the sector is to achieve the very ambitious investment and output targets set for the next five years. After completion of the studies included in the Technical Assistance Project, two missions in FY85 and FY86 will specifically concentrate on: a) setting up a system of producer prices that reverses the deterioration of terms of trade between agricultural and non-agricultural products with the objective of promoting investments in rural areas; b) increasing productivity in rainfed agriculture and livestock production through research, extension and credit; and c) improving the management of public institutions in the area of integrated development, irrigation services, input and output marketing.

12. For manufacturing and mining, the program is based on a detailed outline for a country industrial strategy paper prepared in June 1982. On the basis of the outcome of studies to be financed under the Technical Assistance loan (in particular the designing of an export promotion scheme), a special study will focus on protection and pricing policy, export incentives, and investment promotion for small enterprises (FY85). Specific issues related to industrial credit will be examined in the financial study (see above). In FY87, a long-term strategy study will take stock of all these results to prepare an overall industrial policy for the VIIth Plan (1987-91). Three subsectors: textiles, construction materials phosphate-based industry, identified as crucial subsectors for export promotion, job creation and regional development will be reviewed in FY83, FY84, and FY85 respectively.



13. For energy, the sector work will follow up on the FY82 Sector Memorandum and draw on the studies and activities to be financed under the Technical Assistance loan (FY83) as well as on a USAID financed study of sectoral energy demand. The Tunisian Government is not in favor of an energy assessment mission; it asked for joint studies at the macrolevel, on the basis of the ongoing studies. The sectoral work will include a macroeconomic assessment of the optimal development of domestic production (oil and gas), taking into account balance of payments and public finance constraints (FY83), followed by a study of long term issues (FY85). Renewable energy sources will be studied in FY87.

14. Tourism, which is making a vital contribution to the balance of payments is being maintained through IFC's involvement in this sector.

15. For the other sectors - education, health, urban development, transportation, water supply and sewerage - the work program organizes a series of specific tasks which will concentrate on providing recommendations to: a) reinforce family planning in all social groups and eradicate the main causes of infant mortality (FY83); b) improve education and provide adequate training to meet skill requirements (with a specific study of manpower planning issues and non-formal training in FY84/85 in connection with the employment mission, FY83); c) secure access to public utilities; d) help households improve their shelters with a special review of the construction materials sector (FY84) and the housing sector (FY87, to update the FY82 sector survey); and e) maintain an adequate transportation network to reduce regional inequalities. The tasks will focus on target-group identification, cost-recovery procedures, recurrent expenditures, self-help promotion, as well as promotion of small-scale enterprises, decentralization of economic activities and labor-intensive techniques. With only 13 percent of its population living in absolute poverty, the sector program will prepare feasible strategies to eradicate the zones of extreme poverty by the year 2000 at an affordable cost for the country. Investment programs in these sectors will be examined in connection with Plan Review missions (FY85 and FY86), as was done with success in FY82.

#### Manpower Requirements

16. The various tasks in the ESW program will require 380 staff-weeks for economic work and 420 staff-weeks for sector work, compared to 446 and 368 staffweeks respectively proposed in the 1981 updated Attachment IV./1 Such an allocation of manpower may seem large in relation to the size of our lending program, Tunisia's population and per capita GNP, and in view of its rather sophisticated Administration. The projected manpower requirements, however, reflect the high complexity and operational relevance of the issues; it also implies a concentration of manpower on the design of sectoral strategies with Program Staff support . The ESW program will be complemented with assistance from other institutions, such as the IMF, other UN organizations, and bilateral agencies /2.

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/1 In accordance with Bank procedure only Bank financed staff is accounted for.

/2 E.g. Canada's technical assistance - IDRC - which agreed to coordinate its program with our study on effective protection (FY83).

17. In addition, we will increasingly seek a more systematic and intensive technical cooperation with Tunisian institutions /1, which should not only permit to limit Bank staff requirements, but also the development of more insights into the working procedures of the Administration, better feedback on our recommendations, and better tuned operational policies. Another by-product would be to strengthen the technical capabilities of Tunisian experts. The Bank could in itself also gain from such a cooperation since Tunisia is a good test case for macroeconomic, sectoral or social reforms and policies. Available data, modelling and computing facilities, as well as the high quality of personnel, should allow rather sophisticated analytical methods to be used /2.

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/1 Our experience with the Ali Bach Hamba Institute for Quantitative Analyses (attached to the Ministry of Planning and Finance) has been excellent so far. It will be responsible for the execution of the effective protection study.

/2 Because of its small size, Tunisia has not been chosen for any Bank research project until recently. For FY83, one project will study the effects of trade patterns in an expanded European community on Tunisia's agriculture. A study of transportation tariff is being implemented (FY83).

## TUNISIA: ECONOMIC AND SECTOR WORK PROGRAM

| Tasks                            | Aims Coverage<br>and Audience  | Responsible<br>Departement | Total Staffweeks Required |         |          |          |          |
|----------------------------------|--|----------------------------|---------------------------|---------|----------|----------|----------|
|                                  |  |                            | FY83                      | FY84    | FY85     | FY86     | FY87     |
| <b>A. Economic Reports (ERA)</b> |  |                            |                           |         |          |          |          |
| 1. Country Economic Memoranda    | Investment Strategy<br>and Sectoral Prospects<br>(con't FY82)  | EM2                        | 11                        | -       | -        | -        | -        |
| a. 1982-86 Plan Review           |  |                            |                           |         |          |          |          |
| b. Monitoring                    | Updating CPPs and PRS<br>Follow up on Policy<br>Reforms (prices, incentives)<br>Informal Reports<br>General Audience                                 | EM2                        | 18                        | 18      | -        | -        | -        |
| c. Mid-Plan Assessment           |  | EM2                        | -                         | -       | 30       | -        | -        |
| d. 1987-91 Plan Review           | General Audience   | EM2                        | -                         | -       | -        | 60       | 10       |
| 2. Special Economic Report       |  |                            |                           |         |          |          |          |
| a. Employment Promotion          | Follow-up to Plan Review<br>Bank and Tunisian Cooperation  | EM2                        | 35*                       | 8       | -        | -        | -        |
| b. Public enterprises            | Efficiency and<br>self-financing   | EM2/EMP                    | -                         | 30      | 20       | -        | -        |
| c. Financial system              | Ressources, Credit<br>allocation, industrial<br>credit; Bank, IMF and<br>Tunisian Cooperation  | EM2/EMP                    | -                         | 40*     | -        | -        | -        |
| d. Regional imbalances           | Results of decentralization<br>initiatives; Bank and Tunisian<br>cooperation   | EM2                        | -                         | -       | 20*      | 10       | -        |
| e. Public management             | Following (c) above training<br>control and budget allocation;<br>Bank and Tunisian cooperation  | EM2/IND                    | -                         | -       | -        | 10       | 30*      |
| f. Social inequalities           | Update Social Development<br>Report of 1981; Bank and<br>Tunisian Cooperation  | EM2                        | -                         | -       | -        | -        | 30*      |
| <b>B. Sector Report (SRA)</b>    |  |                            |                           |         |          |          |          |
| 1. Sector Memoranda              |  |                            |                           |         |          |          |          |
| a. Manufacturing                 | Prospect for the textile<br>Industry   | IND                        | 5                         | -       | -        | -        | -        |
| b. Manufacturing                 | Construction Materials<br>Contractors and Economics  | IND                        | -                         | 22      | -        | -        | -        |
| c. Manufacturing                 | Prospects for phosphate<br>based mining and industries   | IND                        | -                         | -       | 12       | -        | -        |
| d. Transportation                | Updating, Plan Review<br>(con't FY82)  | EMP                        | 2                         | -       | -        | -        | 4        |
| e. Transportation                | Investment Review  | -                          | -                         | -       | -        | 4        | -        |
| f. Education                     | Updating Plan Review<br>(con't FY82)   | EMP                        | 4                         | -       | 4        | -        | 4        |
| g. Water supply, sewerage        | Updating   | EMP                        | -                         | -       | 4        | -        | 4        |
| h. Housing                       | Updating   | EMP                        | -                         | -       | -        | -        | 8        |
| 2. Sector Reviews                |  |                            |                           |         |          |          |          |
| a. Agriculture                   | Sector survey<br>(con't FY82)<br>Special Issues (Research<br>Extension, England)<br>Long Term Planning<br>Bank and Tunisian<br>Cooperation           | EMP<br>EMP/EM2             | 10*<br>-                  | -<br>-  | -<br>10  | -<br>45  | -<br>-   |
| b. Industry                      | Effective Protection<br>Incentives, Export<br>Promotion; Bank<br>and Tunisian Cooperation<br>Long term Strategy;<br>Bank and Tunisian<br>Cooperation | EMP/EM2<br>EMP/EM2         | -<br>-                    | -<br>-  | 40*<br>- | -<br>-   | -<br>40* |
| c. Energy                        | Macro assessment<br>Bank and Tunisian<br>Cooperation<br>Long term strategy   | EGY/EMP<br>EMP/EM2         | 57*<br>-                  | -<br>-  | -<br>10  | -<br>20* | -<br>-   |
| d. Manpower                      | Renewable Energy<br>Supply and demand<br>Management (linked to<br>Employment mission above)  | EGY<br>EMP                 | -<br>20*                  | -<br>20 | -<br>-   | -<br>-   | 20<br>-  |
| e. Rural Welfare                 | Nutrition and Health   | PHN/EM2                    | 8                         | -       | -        | -        | -        |
| f. Urban issues                  | Transport and services,<br>Planning; Bank and Tunisian<br>Cooperation  | EMP/EM2                    | 3                         | -       | -        | 20*      | 20       |
| Total                            |  |                            | 173                       | 138     | 150      | 169      | 170      |

\*indicates substantial Tunisian participation

