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EVALUATION REPORT OF THE
AID REGULAR AND SPECIAL SAHEL GRANTS

REPORT TEXT
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ADB/AID JOINT EVALUATION COMMITTEE
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EVALUATION REPORT OF THE AID REGULAR AND SPECIAL
SAHEL GRANTS: REPORT TEXT

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CHAPTER 1 SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS

1.1. INTRODUCTION

1.1.1. The purposes of this chapter are threefold: first, to give an overall conclusion concerning the development of the ADB Group during the 1970s and the extent to which AID technical assistance has contributed to that development; secondly, to summarise the main points of the evaluation; thirdly, to bring together all the recommendations made in the report.

1.2. OVERALL CONCLUSION

1.2.1. During the 1970s, the ADB Group has emerged as an important development finance institution on the African continent responding to and serving the economic and social development interests of its forty eight member states. The Group's level of lending has passed the \$500 million/year mark, with approximately 70 loans per year being granted. It is significant that it managed to achieve this in 1979 despite serious internal upheaval. It must now maintain lending growth at a rate above that of inflation if it is to continue to grow in real terms.

1.2.2. As an institution, the Bank Group is continually seeking ways to improve its operational performance. This is evidenced both by the commissioning of studies such as those of Price Waterhouse into disbursement procedures of the Fund, the First Review Committee of the Fund, and more recently the Acting President's internal review of the project generating capacity of the Bank Group, and by internal re-organisation such as occurred in 1977. The establishment of the Central Projects Unit in the Projects Department to improve the quality and standard of appraisal reports provides a further example.

- 1.2.3. It should also be noted that most of the recommendations made in this report concerning additional improvements to the Bank's procedures and performance originated from suggestions and proposals made by Bank staff during the course of the evaluation. It has been one of the tasks of this evaluation to assess such proposals and suggestions and to incorporate them into the report where it was felt appropriate.
- 1.2.4. As far as the contribution of AID technical assistance to the institutional development and strengthening of the Bank Group is concerned, on balance the evaluation shows it to have been positive. The pre-investment studies have been followed by Bank Group and other agency investment in all cases where the project has been shown economically and technically viable. The technical experts have been and are engaged in activities directly concerned with the Bank's project generating capability and work closely with the Bank's own staff, transferring skills and experience. The training of Bank staff has also had a positive impact. The management data improvement activity has started later than originally planned, but should have a significant impact on the Bank's internal operations and management when implemented.
- 1.2.5. There are areas where problems have arisen and where improvements both by AID and ADB are needed to ensure maximum effectiveness in the use of funds and resources. The AID technical assistance programme, consisting primarily of the Regular and Special Sahel Grant projects, is the largest bilateral technical assistance programme with the Bank and it is therefore important that the effectiveness of its contribution is maximised. The report identifies specific areas for improvement, with appropriate recommendations.
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1.3. Chapter 3: THE OVERALL POSITION CONCERNING THE REGULAR
AND SPECIAL SAHEL GRANT PROJECTS

1.3.1. In reviewing progress to date in the provision and utilisation of funds to the Bank through the Regular and Special Sahel Grants, the following key points emerge:-

- (a) during the first three years of the FY 1978 - FY 1982 project period, actual obligations of Regular Grant Funds have been considerably less than planned: this has affected the pre-investment studies component of the project in particular;
- (b) utilisation of Special Sahel Grant Funds has been rather slow, partly because of a slow rate of pre-investment study identification, partly because of contractual delays;
- (c) considerable attention is currently being focussed on ensuring a high level of commitments for both Grant projects, both by REDSO and the Bank.

1.3.2. The evaluation assesses how in overall terms the Bank has developed during the 1970s as a development finance institution responding efficiently to the economic and social development needs of member states. Once the overall position has been assessed, it is possible to consider what the contribution has been to this of AID technical assistance.

1.3.3. Key points identified by the evaluation are:-

- (a) Bank Group lending now exceeds \$500 m annually, with approximately 70 loans per year being approved;
- (b) there has been a distinct sectoral shift in the Bank Group's lending during the 1970s away from public utilities and transport towards agricultural projects and the health and education sectors, so that in 1978 and 1979 the agricultural sector received the highest allocation of new Bank lending;

- (c) the Bank Group is continually seeking to improve disbursement rates;
- (d) the Bank is currently considering how to improve the movement of projects through the cycle, for example by introducing country and sector programming to improve project generating capacity, strengthening the appraisal process by the establishment of the Central Projects Unit, and by increasing the involvement of Project Officers in monitoring and supervision of projects from a technical point of view: this should be supported;
- (e) the Bank Group has taken important steps in strengthening its personnel activities by the establishment of the Training Centre in 1978, and the development of a permanent career structure with pension facilities which it is planned to introduce shortly: more needs to be done, however, in the area of manpower planning;
- (f) the Bank Group has continually sought to improve its internal operating procedures during the period, with several reports on particular aspects and the preparation of an operating manual covering all Departments.

1.3.4. The recommendations made in Chapter 3 are consolidated in the following paragraphs. The recommendations have been grouped broadly according to whether they have policy implications for AID or the Bank, or whether they have more immediate operational significance.

Policy Recommendations

1.3.4.1. We recommend that the Bank should take the necessary steps to introduce country and sector programming as soon as possible on an operational basis (paragraph 3.4.6.20).

- 1.3.4.2. We further recommend that AID and ADB should consider whether the next phase of the Regular Grant Project should include increased technical assistance for country and sector programming (paragraph 3.4.6.21.).
- 1.3.4.3. We recommend that the Projects Department should become more involved than it is at present in monitoring and supervising project progress from a technical point of view (paragraph 3.4.6.25.)

Operational Recommendations

- 1.3.4.4. We recommend that when the new Project Paper is prepared, the AID Logical Framework is revised in order to clarify ambiguities and correct errors in structure (paragraph 3.2.6.).
- 1.3.4.5. We are concerned that in some cases project appraisals may be done rather too quickly at present, to the detriment of good project design and later implementation. We recommend, therefore, that this be reviewed by the Central Projects Unit (paragraph 3.4.6.22.).
- 1.3.4.6. To ensure that the work of the Central Projects Unit starts as soon as possible, we recommend that the staff appointed to the Unit be released from their former responsibilities without delay (paragraph 3.4.6.23.).
- 1.3.4.7. We recommend that the post evaluation unit advise on how appraisal and consultants' reports should be improved so that they provide the necessary basis for post evaluation (paragraph 3.4.6.26.).
- 1.3.4.8. We recommend that:-
- (a) continued attention be placed on developing the work of the Training Centre;
 - (b) the Bank introduce a planned permanent career structure with a pension scheme as soon as possible;

- (c) the Bank take steps to develop forecasts of manpower needs over the next few years, particularly bearing in mind the increased volume of work that will follow if the Bank's capital is opened to non-African countries;
- (d) the Bank continue to explore with the bilateral agencies how they can satisfy ADB's requirements for technical experts (paragraph 3.4.7.17.).

1.3.4.9. It is recommended that the Bank take steps that are needed to carry out further testing of the Manual of Operating Procedures, and then to revise the Manual as appropriate and introduce it into each Department (paragraph 3.4.8.4.).

1.3.4.10. It is recommended that the Bank Group continue to implement the accepted recommendations of the Price Waterhouse Review of Disbursement Procedures of the ADF and the First Review Committee of the ADF (paragraph 3.4.8.6.).

1.4. CHAPTER 4: PRE-INVESTMENT STUDIES

1.4.1. The evaluation assesses the extent to which the pre-investment studies financed under the Regular and Special Sahel Grants have contributed towards strengthening the capability of the Bank to identify and appraise effectively loan projects, and to monitor and supervise them during implementation, to the economic and social benefit of member states.

1.4.2. Key points that result from the assessment are:-

- (a) the Regular and Special Sahel Grants account for 44% of the total cumulative bilateral grant assistance that has been made available to the Bank Group for pre-investment studies;

- (b) between 1971 and early 1974 a considerable number of studies were contracted, but between mid-1974 and early 1979 only four Regular Grant and three Special Sahel Grant studies were financed: it seems that major contributory factors to the reduction in numbers were lack of availability of AID resources and the time it took for the Bank to adjust to the sectoral limitations following the 1973 United States Foreign Assistance Act;
- (c) currently considerable momentum is being generated with an increase in the number of studies contracted and in the pipeline;
- (d) Bank Group investment has followed or is planned to follow all the pre-investment studies except three: in these three cases the projects concerned were either not financially viable, or found to be of low priority;
- (e) the Bank, together with other lending agencies, have invested to date UA 106.3 million, of which ADB's share is UA 7.1 million, as a result of \$2.4 million worth of studies: similar figures for the Fund are a total of UA 45.0 million of which ADF's share is FUA 32.3 million for \$1.8 million worth of studies: in both cases substantial further investment is in the pipeline;
- (f) to date, investment following AID-financed studies amounts to 10% of the Bank's total lending excluding loans for industry, development banks, power supply and telecommunications, and 5% of Fund lending;
- (g) the previous overconcentration of pre-investment studies in West Africa has been offset since 1977 by a more balanced regional distribution;
- (h) similarly, since 1976 a more balanced sectoral distribution of studies has been achieved, with health and agriculture becoming more important than roads projects;

- (i) currently the contractual progress of most studies is slow because of the excessive number of steps involved and the lack of standardisation: REDSO and the Co-ordination Unit at the Bank are giving priority to resolving these problems and substantially shortening and simplifying the contracting process;
- (j) there have been several examples where problems have arisen with the work of the consultants because of lack of supervision by the Bank and the executing agency of the host government;
- (k) an important problem that emerged during the evaluation is the delays that have occurred between the various stages of a project, in particular between the feasibility and final engineering studies and between loan approval and signature and the date of effectiveness of the loan;
- (l) implementation progress of projects is not systematically monitored and supervised, partly because of the limited involvement currently of Project Officers in monitoring and supervision;
- (m) the disbursement performance of projects subsequent to AID-financed pre-investment studies compares favourably with averages for the Bank and Fund as a whole;
- (n) the socio-economic impact of the projects reviewed in depth has been positive as far as it is possible to assess, except for the dam across the Cotonou lagoon where there are considerable operational difficulties to be resolved;
- (o) the introduction of sector studies and studies to prepare terms of reference is a positive step towards increasing the Bank Group's project generating capacity and should be continued and expanded.

- 1.4.3. The recommendations made in Chapter 4 are set out in the following paragraphs. In broad terms, policy recommendations have been presented separately from those with more immediate operational significance.

Policy Recommendations

1.4.3.1. We recommend that:-

- (a) the Bank should establish a pre-investment unit in the Projects Department to supervise the implementation of consultant studies;
- (b) the Bank should clarify how its supervision responsibilities and those of the executing agencies in the host countries interact;
- (c) at the beginning of a study the Bank should undertake a launching mission to establish a clear and common understanding between the host government, the consultant, and the Bank about each other's role and responsibilities, and the requirements of the study: thereafter missions may be required at key points in the study and when the draft final report is presented;
- (d) because supervision of studies is of immediate relevance to the effectiveness of pre-investment studies financed by AID grants, AID and AED should consider whether future US technical assistance could usefully be directed towards strengthening the Bank's capability in this area. (paragraph 4.5.3.9.).

1.4.3.2. It is recommended that:-

- (a) the Bank should seek to avoid delays between feasibility and final design by programming finance for the second study well in advance of completion of the feasibility study: this may be done by considering feasibility and final design as Phase I and Phase II of one study;

- (b) AID and ADB should discuss ways in which Regular Grant and Special Sahel Grant funds can be linked with ADB or ADF study loans, or with AID bilateral funds and loans so that (a) above can be achieved;
- (c) the procedures and conditions for granting loans out of ADF funds for the purpose of financing studies should be kept as simple as possible consistent with proper control. (paragraphs 4.5.4.11. and 4.7.9.).

1.4.3.3. We recommend that AID should maintain obligations to the Bank for pre-investment studies and avoid the substantial reductions below budget experienced in FY 1978 and FY 1979 (paragraph 4.7.9.).

Operational Recommendations

1.4.3.4. It is recommended that when studies are first proposed, a programme and timetable for the stages involved to the point of contract signature should be prepared, and used as a management tool in progressing the study proposal, updating it as required. (paragraphs 4.5.2.3.).

1.4.3.5. It is recommended that the new procedures for processing pre-investment study proposals be implemented without delay, and a programme for doing this should be established (paragraphs 4.5.2.9. to 4.5.2.11. and 4.7.9.).

1.4.3.6. It is recommended that consideration be given to a streamlined procedure for TOR studies (paragraph 4.5.2.13.).

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1.4.3.7. It is recommended that:-

- (a) the quantity and appropriateness of consultants' work should be ensured as far as possible by adequate supervision;
- (b) that concern be taken to provide adequate funds to enable studies to be completed effectively (paragraph 4.5.3.16.).

1.4.3.8. It is recommended that where possible training of host country personnel should be included in the terms of reference for pre-investment studies (paragraph 4.5.3.20.).

1.4.3.9. It is recommended that the Bank, as part of its improvement in programming, monitoring, and supervising work, should reinstate a progress report on consultant studies (paragraph 4.5.3.25.).

1.4.3.10. We recommend that:-

- (a) the Bank should consider whether a longer period for appraisal would improve project design and expedite implementation;
- (b) all recommendations of the Price Waterhouse and First Review Committee Reports designed to expedite loan effectiveness which have been accepted but not implemented, should be implemented as soon as possible;
- (c) the Bank's programming of project progress should monitor and record the periods between loan approval, signature, and date of meeting the loan conditions. (paragraph 4.5.6.7.).

- 1.4.3.11. We recommended in Chapter 3 that the Project Officers should become involved in project supervision and monitoring as set out in the Administrative Instructions of 1977, and that a distinction should be made between the loan and the project when it comes to supervision. We further recommend that the system of monitoring and supervision should include comparison of planned and actual progress, with explanation of variances both in time and costs, as part of a system of project programming. We suggest that the terms of reference for the Central Projects Unit include the preparation of this. (paragraph 4.5.7.5.).
- 1.4.3.12. We recommend that, in the course of reviewing project appraisal report formats, the Bank should include clearer statements of project goals and purposes, and of the assumptions supporting the analysis. The AID Logical Framework Analysis provides a useful reference for this (paragraph 4.6.6.).
- 1.4.3.13. It is recommended that the Bank arrange a supervision mission to Cotonou to identify remedial action for the problems encountered with the operation of the dam across the mouth of Cotonou lagoon. (paragraph 4.6.12.6.).
- 1.4.3.14. It is recommended that the Bank discuss with the Upper Volta authorities the steps that are necessary to ensure that the watering facilities for livestock and people at the earth dams are fully used (paragraph 4.6.13.5.).
- 1.4.3.15. It is further recommended that the Bank should consider whether technical assistance will be needed to introduce the planned siphon system of irrigation at the earth dams in Upper Volta (paragraph 4.6.13.7.).
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1.4.3.16. We recommend that the Bank should organise and contract as many TOR studies as possible with the uncommitted balance of the FY 1980 obligation for pre-investment studies (paragraph 4.7.9.).

1.4.3.17. We recommend that AID should be flexible in its use of sectoral criteria when the case for a particular project is strong: further, that the Bank should, as a test case, prepare and justify to AID a pre-investment study for a major infrastructure project such as bridges on a trunk road which is of high priority to the country concerned, but not obviously within the AID sectoral guidelines (paragraph 4.7.9.).

1.5. CHAPTER 5: TECHNICAL EXPERTS

1.5.1. The evaluation assesses the extent to which the work of the technical experts has contributed to strengthening the capability of the Bank Group to identify and appraise loan projects and monitor their implementation to the benefit of member states.

1.5.2. The key points that result from the evaluation are:-

- (a) the AID technical experts currently account for about 20% of the total number of technical assistants in the Bank;
- (b) the work of the experts has contributed directly to strengthening the Bank's capability to identify, appraise, monitor and supervise projects;
- (c) the most effective training that the experts can give is through working closely on a day-to-day basis in an operational role with Bank staff;
- (d) the idea of one-to-one counterparts is widely rejected both by Bank staff and the technical experts: the technical experts are complementary to Bank staff;

- (e) the appraisal of the work of technical experts could be used more effectively as a management tool;
- (f) generally, the procedures for recruitment seem satisfactory, although there is a need for more information to be available to the experts on terms and conditions of contracts, living conditions in Abidjan, and administrative arrangements, as well as on the work of the Bank and the particular Division or Department;
- (g) there are several issues concerning terms and conditions of service which need resolution: REDSO is currently dealing with them;
- (h) the Bank would like to have more AID technical experts, and it seems that they could be absorbed without difficulty.

1.5.3. The recommendations made in Chapter 5 are set out in the following paragraphs. They have been divided into those which, broadly speaking, are concerned with matters of policy, and those which are more directly operational.

Policy Recommendations

1.5.3.1. We recommend that ADB and AID should consider whether a basic proficiency in French should be required of all future US technical experts, what effect this would have on recruitment, and what the implications are for language training (paragraph 5.5.5.5.).

1.5.3.2. We recommend that the Bank consider increasing the scope of appraisals in the following way:-

- (a) the appraisal should include an interview with the expert, during which he would have the opportunity to record comments on observations made about his performance by his superiors;

- (b) the appraisals should be more specific, referring to particular work tasks and assignments carried out during the year: this could also be expanded to have assignment-based appraisals more frequently than annually;
- (c) the appraisal should give the expert the opportunity to put forward suggestions designed to improve his work performance and that of the Department.

Operational Recommendations

1.5.3.3. We recommend that the Bank consider the comments made by the technical experts for improving their work and that of the Bank, i.e.:-

- (a) improving interdepartmental communication and liaison;
- (b) reducing time spent on administrative matters by strengthening administrative support services;
- (c) spending more time in Division meetings taking stock of what has been and is being done and what lessons are being learned;
- (d) providing an agenda for Division meetings and the opportunity to discuss issues as well as the immediate programme of work (paragraph 5.5.5.3.).

1.5.3.4. We recommend that the Bank and REDSO give immediate consideration to the suggestions made by the experts for additional information to be made available during recruitment. In particular, we recommend that the Bank and REDSO prepare a booklet of information, including details of regulations, terms, allowances and conditions, living conditions and costs, and administrative arrangements (paragraphs 5.7.3.2. and 5.7.3.3.).

- 1.5.3.5. It is recommended that the booklet used by the Training Centre at the Orientation Seminar be given to new arrivals as soon as they join the Bank (paragraph 5.7.5.2.).
- 1.5.3.6. It is further recommended that a copy of the Administrative Instructions should be given to each new arrival immediately he joins the Bank - and that he should read them (paragraph 5.7.5.2.).
- 1.5.3.7. We recommend that Division Heads be encouraged to provide specific induction to new arrivals. Also where possible, new arrivals should be sent on mission as active observers as soon as possible after arrival to enable them to learn how the Bank operates in the field. (paragraph 5.7.5.3.).
- 1.5.3.8. We recommend that ADB's capability to assist experts with such matters as locating and leasing housing should be strengthened (paragraph 5.7.6.3.).
- 1.5.3.9. We recommend that REDSO should complete its review of the experts' concerns with their terms and conditions of service as quickly as possible, and that as far as possible reasonable and equitable solutions be found within statutory possibilities (paragraph 5.8.5.).
- 1.5.3.10. We recommend that AID apply sectoral criteria flexibly when responding to requests for technical experts from the Bank (paragraph 5.9.2.).

1.6. CHAPTER 6: TRAINING

- 1.6.1. The evaluation assesses the extent to which the funding assistance AID provides to the training activities of the Bank contributes to the strengthening of the Bank as a development finance institution responding to the needs of member states.
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1.6.2. The key points that result from the evaluation are:-

- (a) the Training Centre has developed an ambitious, but necessary, programme of training, both for its own staff and those of development institutions in member countries;
- (b) AID assistance for training to date has been relatively small compared with that for technical experts and pre-investment studies, and for a small increase in funding could be considerably expanded;
- (c) AID assistance for training is the only bilateral assistance the Training Centre receives for training its own staff: several donors are financing courses for staff of member state institutions;
- (d) apart from the precis writers' course in 1977/78, which was badly planned, the training received to date seems to have been most valuable and beneficial to the trainees/persons on attachment in particular and the Bank in general;
- (e) post evaluation of training takes place in the form of written reports and an evaluation seminar, but sometimes it seems that these are omitted: this is unfortunate because the attachments in particular have generated many ideas and recommendations for improvements in the Bank's procedures which should be systematically considered;
- (f) generally, selection procedures and administrative arrangements seem to be satisfactory.

1.6.3. The recommendations made in Chapter 6 are set out in the following paragraphs. In broad terms, the recommendation with implications for policy is separated from those of more immediate operational significance.

Policy Recommendation

- 1.6.3.1. We recommend that when the next Project Paper for the Regular Grant is prepared, REDSO and ADB should discuss ways in which the training part of the Regular Grant Project can be expanded (paragraph 6.9.2. and 6.9.3.).

Operational Recommendations

- 1.6.3.2. We recommend that:-

- (a) ADB should ensure that it is fully aware of the contents of courses before Bank staff are sent off;
- (b) where possible, ADB should have an input to course planning by identifying its specific needs to the institution concerned (paragraph 6.5.2.10.)

- 1.6.3.3. We recommend that the production of back-to-office reports and follow-up action should be given high priority for professional staff returning from study attachment (paragraph 6.6.3.8.).

- 1.6.3.4. We recommend that:-

- (a) the post evaluation procedure for Bank personnel returning from courses and attachments should be followed in all cases;
- (b) senior management and their immediate supervisors should be involved in the post evaluation process. (paragraph 6.7.5.).

- 1.6.3.5. We recommend that additional information on living conditions and costs in the countries to where personnel are sent should be provided. In particular, we recommend that the Training Centre and AID liaise to provide any films or information available at the US International Communications Agency (paragraph 6.8.7.).

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1.7. CHAPTER 7: IMPROVEMENT OF MANAGEMENT DATA SYSTEM

- 1.7.1. The evaluation has not been able to do more than record progress to date with the Phase I study, and outline likely future stages.
- 1.7.2. The key points are:-
- (a) the Final Report of the Phase I study is due to be presented to the Bank at the end of May 1980;
 - (b) it seems likely that the Bank will proceed to develop systems for the Secretariat and Management Information before Economic Studies;
 - (c) it is planned to have the first systems operational in 1982;
 - (d) the cost of the whole system is considerably in excess of the amount originally programmed by AID.
- 1.7.3. The recommendation made in Chapter 7 is set out in the following paragraph.
- 1.7.3.1. It is recommended that ADB and AID start discussions on the revised financing of subsequent phases as soon as feasible after the consideration of the Final Report of Phase I (paragraph 7.4.2.).

CHAPTER 2 INTRODUCTION AND TERMS OF REFERENCE
FOR THE EVALUATION

2.1. INTRODUCTION AND BACKGROUND

2.1.1. The AID programme of development grant assistance to the African Development Bank (ADB) consists of three projects:-

- (a) the Technical Assistance ("Regular") Grant, project no. 698-11-120-127;
- (b) the Special Sahel Grant, project no. 625-11-995-909; and
- (c) the Regional Onchocerciasis Area Land Satellite (LANDSAT) Related Study Grant.

These projects are all for the provision of technical assistance. This evaluation is concerned with the Regular and Special Sahel Grant projects, treating the two as one project with separate sources of financing.

2.1.2. The first Regular Grant agreement between AID and the Bank was executed in July 1968 providing \$415,000 for advisory technical assistance and feasibility studies. Between 1968 and September 1977 a total of \$6,085,000 was authorised. It seems that no Project Paper was prepared until 1977 when authorisation for a further \$6,600,000 was sought, and obtained, for the Fiscal Years (FY) 1978 - 1982. In total, therefore, \$12,685,000 has been authorised since 1968 under the Regular Grant programme. At May 16, 1980, \$8,965,000, or 71% of the total authorised had been obligated to the Bank through amendments to the original grant agreement. These funds have been, and are being used for:-

- (a) pre-investment studies for projects;
- (b) financing US citizen technical experts at the Bank;
- (c) financing certain expenses associated with short term training of Bank Staff;
- (d) the development of an electronic data processing (EDP)-based data management system at the Bank;
- (e) procurement of some legal books for the Library;
- (f) this evaluation of the Regular and Special Sahel Grant projects.

2.1.3. The initial agreement for \$2,000,000 between AID and ADB in respect of the Special Sahel Grant was executed in November 1974, and increased in June 1977 by \$1,000,000. The purpose of the grant is to assist the Sahelian countries with recovery and rehabilitation after the droughts of the early 1970s. The first grant agreement was for the financing of economic feasibility studies, preliminary engineering, and final design studies. The terms of the additional grant were expanded to allow its use for studies or analyses of regional or sectoral development strategies, to identify and design projects for financing, and to address special problems in the implementation of the Sahel development programme.

2.2. THE AUTHORITY FOR, AND PURPOSE OF, THIS EVALUATION

2.2.1. In March 1977, an evaluation was carried out by the Program Evaluation Officer of REDSO/WA of the whole programme of AID development grant assistance to the Bank. This comprised desk research and interviews with Bank officials and REDSO personnel only, and was not an in-depth evaluation. One of the recommendations of this evaluation was that an in-depth evaluation should be carried out in 1980.

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2.2.2. The 1977 Project Paper included this recommendation, and on August 30, 1979, an amendment to the Regular Grant agreement was approved, providing \$50,000 for the evaluation and setting out in broad terms what the evaluation should include, among other things, namely:-

- (a) evaluation of progress toward attainment of the objectives of the project;
- (b) identification and evaluation of problem areas or constraints which may inhibit such attainment;
- (c) assessment of how the information obtained may be used to overcome the problems referred to in (b) above; and
- (d) evaluation, to the degree feasible, of the overall developmental impact of the project.

2.2.3. This amendment established the timetable for the evaluation, which was to be carried out jointly by the parties, during March and April 1980, with the results of the evaluation to be reported to the parties not later than May 31, 1980.

2.2.4. Subsequent to this, in February 1980, the Acting President of the African Development Bank, Mr. G. Gondwe, and the Director of REDSO/WA, Mr. G. Evans, appointed members of their staff representing all appropriate departments to a Joint Evaluation Committee (JEC) which was charged with the responsibility for carrying out the evaluation.

2.2.5. ADB and AID decided to engage to the JEC an independent consultant from the firm of Deloitte Haskins & Sells to provide professional services, advice and assistance, and in order that the results of the evaluation might be seen as objective.

2.2.6. The evaluation has two main purposes:-

- (a) to assess the impact of the Regular Grant and Special Sahel Grant projects in terms of their purpose and goal; to evaluate the relevance of the project design and strategies; and to determine factors associated with success or failure;
- (b) to feed back findings into improved design and execution.

2.2.7. The results of the evaluation will be used as a basis for improving the execution of the Regular and Special Sahel Grant projects. They will also be used as the basis for a revised Project Paper which may determine the level and extent of future AID contributions. Of particular significance in this regard is the intention of the ADB to increase its membership and capital to include non-African countries, perhaps by 1982. This will substantially increase the capital resources available to the Bank for lending, and necessitate an expansion in the Bank's planning, project identification, preparation, appraisal and supervision activities.

2.2.8. The terms of reference for the JEC were agreed as follows:-

2.2.8.1. The Evaluation of Projects Based on Studies Funded by AID Grants

- (a) establish the implementation status of project loans made based on studies funded by AID;
 - (b) identify whether any projects have been completed and, if so, what have been the results;
 - (c) identify whether there have been any negative results and, if so, whether the pre-investment studies foresaw the possibility of such results;
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- (d) establish whether pre-investment studies themselves or any other outputs created unforeseen problems or had unexpected benefits;
- (e) determine what has happened to completed studies for which no project loans have yet been made;
- (f) identify how these projects are intended to contribute to social progress or economic development in the member states;
- (g) establish what has been the implementation performance on these projects, identifying major implementation problems, and determining how the implementation experience with particular projects can be used to improve the design of future projects;
- (h) identify how disbursement rates compare with projections and if possible how they compare with the average for the ADB and ADF as a whole;
- (i) establish what has been the ADB's progress towards its own performance objectives.

2.2.8.2. AID Financed Technical Experts

Establish, by means of interviews and a review of documents how the project-financed technical experts have contributed to the achievement of the ADB's own performance objectives.

2.2.8.3. AID Financed Training

Establish, by means of interviews and a review of documents, how the project-financed training has contributed to the achievement of ADB's own performance objectives.

2.2.8.4. AID Support for the Bank's Project for Identifying and Adopting New Management Techniques

Evaluate the progress of the data management modernisation activity currently being undertaken and assess its contribution to the achievement of the ADB's own operational objectives.

2.3. OUTLINE OF METHODOLOGY USED

- 2.3.1. In this chapter the methodology used for the evaluation is outlined briefly; in subsequent chapters further details are given.
- 2.3.2. The basic methodology used has been to obtain and evaluate information from a variety of sources and to codify it in status review forms for each pre-investment study, technical expert and trainee. The forms are included as Annexes to this Report.
- 2.3.3. Information concerning the pre-investment studies and subsequent action, including investment by the Bank Group, was obtained from detailed file searches at ADB and REDSO/WA; reviews of all available periodic reports, for example the Statement of Loans and the Loan Administration reports; interviews with Project, Loan, and Finance Officers; reviews of consultant reports and appraisal reports prepared by the Bank; and for five projects in four countries, missions to see the projects, gather data on implementation of the study and the project, and its impact, were carried out.
- 2.3.4. As far as the technical experts are concerned, the main source of information was a combination of written questionnaires and verbal interviews with the technical experts and their supervisors. Copies of the questionnaire form used are contained in the Annexes. In addition, information was gathered

from the files of the experts. Unfortunately, the evaluation was unable to obtain very much information about the impact of the experts who left several years ago because no end-of-tour reports seem to have been prepared. In the course of reviewing the pre-investment studies, however, the name of Mr. Crosthwaite, who was a transport engineer, funded under the Regular Grant project, occurs frequently and his former colleagues in the Transport Division of the Bank speak highly of him.

- 2.3.5. A similar method of combined written questionnaires and verbal interviews, plus a review of training reports, terms of reference and policy documents was used to compile information on the impact of the training partly financed by Regular Grant funds.
- 2.3.6. As the progress with the development of an EDP-based data management system is limited to date, with Phase I studies by the consultant nearing completion, the evaluation was not able to do more than establish the current status of the work and the outline plan for the next stages. This was done by means of interviews with the consultant, and ADB staff.
- 2.3.7. A review of the operating procedures for the Regular and Special Sahel Grants was carried out by the Bank and REDSO/WA at a meeting on February 7, 1980. The consultant reviewed this and added points that arose during the evaluation of the individual components of the project. The consultant also held discussions with officials in the ADB Co-ordination Unit and with REDSO/WA officials on further improvements.

2.3.8. The evaluation of the extent to which, in general terms, the ADB has developed as a development banking institution during the last few years was carried out by a combination of reviewing data and statistics available on the Bank's activities and performance and holding interviews with Bank officers, including Departmental Directors. Information was also sought, and some obtained, on other development banks with which some comparisons are useful, for example the World Bank and the Asian Development Bank.

2.3.9. Altogether, the evaluation obtained a large amount of information from many sources about the implementation and impact of the Regular and Special Sahel Grant projects. The JEC and the consultant wish to thank all those involved for their cooperation and assistance.

CHAPTER 3 THE OVERALL POSITION CONCERNING THE
REGULAR AND SPECIAL SAHEL GRANTS

3.1. INTRODUCTION

- 3.1.1. This chapter first sets out an outline description of the Regular Grant and Special Sahel Projects as presented in the Project Paper of 1977. The projects' goal, purpose, planned outputs and inputs are described with a review of progress to date.
- 3.1.2. The review of progress to date in achieving the projects' goal and purpose considers how the Bank has developed as a development banking institution during the period of the project. This is done by reviewing the Bank Group's lending and disbursement records during the period, and by considering the steps by which projects move through the project cycle from identification to implementation. The Bank Group's personnel situation is discussed, and the measures taken to improve the internal operations and procedures of the Bank, with comments on the progress made to date.
- 3.1.3. Conclusions and recommendations arising from this analysis are set out at the end of each sub-section.

3.2. DESCRIPTION OF THE REGULAR AND SPECIAL SAHEL GRANT PROJECTS

- 3.2.1. The main source of information on the design of the two projects is the Project Paper of 1977. This appears to be the first time that a comprehensive design was prepared. Previously, the frameworks for the projects were the original grant agreement of July 1968 for the first of the "Regular" grants, amended periodically as additional amounts were obligated to the Bank, and the grant agreement of November 1974 for the Special Sahel Grant, amended in July 1977 when the size of the Grant was increased from \$2,000,000 to \$3,000,000.
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3.2.2. The 1977 Project Paper contains an AID Logical Framework Analysis which sets out the planned goal, purpose, outputs and inputs for the Regular Grant project. A similar analysis for the Special Sahel Grant does not seem to have been prepared. For the purpose of this evaluation, the goal and purpose of the Special Sahel Grant are taken to be the same as for the Regular Grant, but with special emphasis on the recovery and development of the countries in the Sahel Region.

3.2.3. Although the Logical Framework Matrix prepared provides a useful basis for assessing the planned project goal, purpose outputs and inputs, there is a certain ambiguity among goal, purpose, outputs and inputs which should be avoided in future Project Papers. For example, with regard to inputs and outputs, the provision of technical experts to the Bank is considered an output in the Logical Framework. It is more accurate, in our opinion, to consider the provision of the experts as an input, whereas the output is the work performed by the technical experts.

3.2.4. Similarly the distinction between the goal and purpose is rather blurred in the Logical Framework. The project goal is stated as:-

" Strengthen the Bank's institutional capability to respond affirmatively to member states' requests for support for their social and economic development goals"

while the project purpose is given as

" Strengthen the Bank's capability to identify and appraise effectively loan projects for member states and to monitor them during implementation".

3.2.5. As a result of the lack of a clear distinction between the goal and purpose as specified, the measures of achievement as contained in the Logical Framework are confused, in our opinion. In order to measure the extent of achievement of the project goal, one "objectively verifiable indicator" established is the amount of time required for complete preparation of member states' project proposals. This is to be measured by analysing the time span from project identification to loan approval. In our opinion, this is more appropriately located as a means of verifying whether the project purpose has been achieved rather than the project goal.

3.2.6. It is not intended that this evaluation should re-write the Logical Framework for the project. It is recommended, however, that when the new Project Paper is prepared, the Logical Framework is revised in order to clarify ambiguities and correct errors in structure.

3.2.8. The Project Goal

3.2.8.1. For this evaluation, the JEC decided that the goal of the Regular and Special Sahel Grants is:-
"to advance economic and social development in Bank Group member states".

3.2.9. The Project Purpose

3.2.9.1. The project purpose agreed by the JEC is defined as:-
"to increase the Bank Group's ability to respond affirmatively to requests for project loans by member states."

3.2.9.2. More specifically, this concerns the Bank Group's capability to identify, prepare and appraise loan projects, and to monitor and supervise their implementation.

3.2.10. Project Outputs

3.2.10.1. The project outputs for the Regular Grant Project are:-

- (a) completed pre-investment studies;
- (b) the work of US technical experts placed in the Bank in key positions from the point of view of identifying, appraising, monitoring and supervising the implementation of projects;
- (c) the work of trainees who have completed training courses with the assistance of Regular Grant support;
- (d) a modernised system of data management at the Bank;
- (e) a completed in-depth evaluation by the end of May 1980.

3.2.10.2. The project outputs for the Special Sahel Grant are completed pre-investment studies.

3.2.11. Project Inputs

3.2.11.1. The project inputs are defined as providing funds to finance:-

- (a) US and African consulting firms contracted to undertake pre-investment studies identified by the Bank and approved by REDSO/WA, using both Regular and Special Sahel Grant funds;
- (b) US technical experts to work in the Bank;

- (c) transport, per diem, and miscellaneous expenses for Bank staff sent on training courses overseas: this is primarily for professional staff who are seconded to other regional development banks or similar institutions;
- (d) consultants to study the Bank's requirements for a modernised data management system, and then to design the system agreed upon, to adapt existing systems and to carry out training of Bank staff who will operate the new system.
- (e) a consultant to assist and advise the joint evaluation of the Regular and Special Sahel Grant projects.

3.3. REVIEW OF PROGRESS TO DATE

- 3.3.1. In reviewing overall progress to date with the implementation of the Regular and Special Sahel Grants, the logical sequence of project goal, purpose, output and inputs is reversed.

Table 3.1. -

Summary Status of Funding, Regular Grant
Project as at December 31, 1979

1. Total Amount Authorised	<u>\$12,685,000</u>
Allotted to date	7,865,000
Not yet allotted	4,820,000
2. Total Amount Obligated	<u>\$ 7,865,000</u>
Committed to date	7,635,327
Not yet committed	229,673
3. Allocation of Obligated Funds:	

<u>Activity</u>	<u>Amount Committed</u>	<u>Amount Uncommitted</u>	<u>Total Obligated</u>	<u>Percent</u>
Pre-Investment Studies	\$5,987,346	\$92,393	\$6,089,739	77.30%
Technical Experts	1,437,161	67,500	1,504,661	19.13%
Training	88,020	65,980	154,000	1.96%
Management Improvement	71,200	3,800	75,000	.95%
Procurement	1,600	0	1,600	.02%
Evaluation	50,000	0	50,000	.64%
Total	<u>\$7,635,327</u>	<u>\$229,673</u>	<u>\$7,865,000</u>	<u>100.00%</u>

Table 3.2. -
Summary Status of Funding, Regular Grant
Project as at May 16, 1980

1. Total Amount Authorised	<u>\$12,685,000</u>
Allotted to date	8,965,000
Not yet allotted	3,720,000
2. Total Amount Allotted	<u>\$ 8,965,000</u>
Obligated to date	8,965,000
Not yet obligated	0
3. Total amount obligated	<u>\$ 8,965,000</u>
Committed to date	8,484,467
Not yet committed	480,533
4. Allocation of Obligated Funds:	

<u>Activity</u>	<u>Amount Committed</u>	<u>Amount Uncommitted</u>	<u>Total Obligated</u>	<u>Percent</u>
Pre-Investment Studies	\$6,803,346	\$328,778	\$7,132,124	79.55%
Technical Experts	1,437,161	67,500	1,504,661	16.78%
Training	121,160	80,455	201,615	2.25%
Management Improvement	71,200	3,800	75,000	.84%
Procurement	1,600	0	1,600	.02%
Evaluation	50,000	0	50,000	.56%
Total	<u>\$8,484,467</u>	<u>\$480,533</u>	<u>\$8,965,000</u>	<u>100.00%</u>

3.3.2. Project Inputs - Regular Grant

3.3.2.1. In Tables 3.1. and 3.2., statements of the cumulative funding position of the Regular Grant Project are set out, to December 31, 1979, and May 16, 1980, respectively. The former is the date used when considering the status of subsequent project investment by the ADB Group, the latter is the latest position available to this evaluation and includes the full obligation to ADB of the 1980 allotment of \$1,100,000. The May 16, 1980, position includes the obligation of \$231,200 made on that date for pre-investment studies. This was originally earmarked for Phase II of the management data improvement activity but will not now be needed until FY 1981. To avoid having the funds inactive it has been decided to use

them for pre-investment studies, and to transfer an equivalent amount out of the FY 1981 planned obligation for pre-investment studies to the management data improvement activity.

3.3.2.2. In physical terms, the commitments at May 16, 1980, represent:-

(a) Pre-investment studies

	<u>Value \$</u>
22 contracts completed	4,276,455
2 contracts signed, work in progress	550,000
3 contracts being negotiated	1,076,891
1 commitment made TOR approved	500,000
1 commitment made TOR being reviewed	400,000
	<u>6,803,346</u>

(b) Technical Experts

3 completed contracts	414,661
5 contracts signed, personnel in post	922,500
1 commitment for extension	100,000

1,437,161

(c) Training

4 precis writers and one interpreter completed their training	54,000
6 professionals completed their attachment training	27,330
Commitments for five professionals not yet sent on attachment	39,830

121,160

(d) Improvement of Management Data System

Contract for Phase I signed, work in progress	71,200
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	<u>Value \$</u>
(e) <u>Procurement</u>	
Completed procurement of legal books from Harvard Law Library	1,600
(f) <u>Evaluation</u>	
Work completed with the preparation of this report	<u>50,000</u>
Total Commitment	<u>8,484,467</u>

3.3.2.3. At March 31, 1980, cumulative accrued expenditure against commitments was as follows:

Pre-investment studies	\$4,724,955
Technical Experts	763,161
Training	81,300
Management Data Improvement	32,200
Procurement	1,600
Evaluation	15,000
Total	<u>\$5,618,216</u>

3.3.2.4. Thus, to date, 71% of the total amount authorized has been allotted and obligated to the Bank, and 91% of the amount obligated has been committed. Although a comparison of expenditure at March 31, 1980, with commitments and obligations at May 16, 1980, is not quite correct, there has not been much change in expenditure since the end of March. Accordingly expenditure is currently approximately 69% of commitments and 63% of obligations.

3.3.2.5. To assess the recent financial progress of the Regular Grant project, we have compared the planned schedule of financing with what has actually occurred in each year from FY 1978, which is the first year covered by the 1977 Project Paper. This is set out in Table 3.3. The table also provides the latest forecast of obligations to FY 1982 as compared with forecast.

Table 3.3. -
Comparison of Planned and Actual Obligations,
Regular Grant July 1968 - FY 1982

	<u>FY 1978</u>		<u>FY 1979</u>		<u>FY 1980</u>		<u>FY 1981</u>		<u>FY 1982</u>		<u>Total</u>	
	<u>P.</u>	<u>A.</u>	<u>P.</u>	<u>A.</u>	<u>P.</u>	<u>A.</u>	<u>P.</u>	<u>F.</u>	<u>P.</u>	<u>F.</u>	<u>P.</u>	<u>A/F</u>
(a) Preinvestment Studies	700	250	800	215	1,000	1,052.4	800	668.8	850	2,021.2	4,150	4,207.4
(b) Technical Experts	200	650	425	440	465	-	350	300	90	120	1,530	1,510
(c) Training	50	50	115	50	80	47.6	40	-	50	50	335	197.6
(d) Improvement of Management Data System	50	50	360	25	155	-	10	231.2	10	278.8	585	585
(e) Evaluation	-	-	-	50	-	-	-	-	-	50	-	100
	<u>1,000</u>	<u>1,000</u>	<u>1,700</u>	<u>780</u>	<u>1,700</u>	<u>1,100</u>	<u>1,200</u>	<u>1,200</u>	<u>1,000</u>	<u>2,520</u>	<u>6,600</u>	<u>6,600</u>

Note: P = Planned, 1977 Project Paper
A = Actual
F = May 1980 Forecast

3.3.2.6. This table shows that overall actual funding levels have been considerably less than originally planned, with a shortfall of almost \$1 million in FY 1979 and \$600,000 in FY 1980. The main cause of this is AID's overall shortage of funds. The shortfall in Regular Grant obligations has primarily affected pre-investment studies with approximately \$1 million less than planned. Obligations to support the provision of technical experts have been at about the budgeted level over the three FY's 1978 to 1980, although in FY 1978 they were considerably above budget. Obligations for training have fallen short of budget so far, as have those for the improvement to the Bank's management data system where work has started later than originally planned.

Pre-Investment Studies

3.3.2.7. At the time of the 1977 Project Paper, 17 pre-investment studies were either complete or in progress under the Regular Grant, with another two in the preparatory stage. A further 13 were planned for the period FY 1978 to 1982. Only six of the thirteen studies planned have been contracted so far, five of which were small studies for the preparation of terms of reference. This is largely because of the shortfall in available funds, but is also due to the slowness in organising studies. With more funds available in FY 1980, and the efforts being made by REDSO and the Coordination Unit at the Bank to streamline the contracting cycle, three feasibility studies will shortly be contracted, with a value exceeding \$1 million. Two of these are based on earlier terms of reference studies, the Health Sector Studies in Rwanda and Guinea Bissau.

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Technical Experts

- 3.3.2.8. Three technical experts were funded prior to FY 1978 at a cost of \$414,661 to the Regular Grant project and Fr/CFA 6.0 million to the Bank. Since then five contracts have been signed with a commitment of \$922,500 from the Regular Grant project and Fr/CFA 34,400,000 from the Bank. Of these, the agricultural economist and sanitary engineer positions are funded for two man/years each from the balance remaining in the Regular Grant prior to FY 1978, and the other three are financed from FY 1978 and FY 1979 obligations.

Training

- 3.3.2.9. All training funded by the Regular Grant has occurred since August 1977. So far four precis writers, one interpreter and six professional members of the Bank's staff, including two Deputy Departmental Directors, have been on courses ranging from five weeks to ten months. There are open commitments for five more professionals who are due to go on attachment to other development banks.

Management Data Improvement

- 3.3.2.10. The consultant for Phase I of the development of an improved management data system started work in January 1980 and is due to present the Final Report at the end of May 1980.

Evaluation

- 3.3.2.11. The consultant to assist with the JEC's evaluation started work at the beginning of March and is due to complete the work at the end of May.

3.3.3. Project Inputs-Special Sahel Grant Project

3.3.3.1. Table 3.4. sets out the cumulative financial position at May 16, 1980.

Table 3.4. -

Summary Status of Funding, Special
Sahel Grant Project at May 16, 1980

1. Total Amount Authorised	\$3,000,000
Allocated to Date	3,000,000
Not Yet Allotted	-
2. Total Amount Obligated	\$3,000,000
Committed to Date	2,662,270
Not Yet Committed	337,730

- 3.3.3.2. In physical terms this represents three completed pre-investment study contracts worth \$1,307,395, two contracts signed with work in progress and two studies with contracts under negotiation.
- 3.3.3.3. One hundred percent of the total amount authorised of \$3,000,000 has been allotted and obligated, and 89% committed. Approximately 28% of the amount obligated is tied up in contracts still under negotiation.
- 3.3.3.4. Draw down of funds for the Special Sahel Grant has been slow. At March 31, 1980, expenditure amounted to \$1,489,240, or 50%. The main reasons for the slow progress are:-
- (a) slow identification rate of potential studies, with Sahelian countries and CILSS slow to come forward with proposals;
 - (b) long delays in agreeing terms of reference and contracting consulting firms.

3.3.4. Project Outputs

- 3.3.4.1. For the purpose of considering project outputs it is convenient to take the Regular and Special Sahel Grants together.

Pre-Investment Studies

- 3.3.4.2. The above analysis of project inputs shows that a total of 25 pre-investment studies have been completed, 22 financed by Regular Grants and three by Special Sahel Grants. A further four are in progress, two each financed by the Regular and Special Sahel Grants. Two of these studies, the Djermaya - Djimtillo Road in Chad, and the Dori - Tera - Niamey Road in Upper Volta/Niger, are at the Draft Final Report stage and have been used to take investment decisions. The decision on the former was against investing in the road because of its lack of feasibility while the decision on the latter was to proceed with final engineering design.

Technical Experts

- 3.3.4.3. So far a total of seven technical experts have started work in the Bank, three having completed their contracts. An eighth has just arrived. The eight are:-

- 1 transportation economist
- 2 financial analysts
- 2 agricultural economists
- 1 sanitary engineer
- 1 special studies coordinator
- 1 health planner

- 3.3.4.4. As Chapter 5 shows, the work of these experts has been predominantly project preparation and appraisal. The Special Studies Coordinator is in the Department of Policy Planning and Development where his work is directed towards improving project identification, formulating policies and researching operational problems.

- 3.3.4.5. Two of the current experts, Peek (agricultural economist) and Erickson (financial analyst) have just been assigned to the Central Projects Unit in the Projects Department, which will be responsible for improving procedures, especially for project appraisal.

Training

- 3.3.4.6. Of the four precis writers who returned from the course of nine months at Carnegie-Mellon University, one has recently left the Bank's service. The others, and the interpreter who went to Georgetown at the same time, are utilising their skills learned in their current positions, as is described in Chapter 6.
- 3.3.4.7. The six professional staff members who went on attachment are all currently using the skills learned in their current positions. An assessment of the value of the training is included in Chapter 6.

Management Data Improvement

- 3.3.4.8. The full status of this part of the project is given in Chapter 7. So far the consultant has prepared a Master Plan for the development of the system which has been discussed with the Bank and the Final Report is due to be presented at the end of May.
- 3.3.4.9. For the purpose of this evaluation, this activity has not proceeded sufficiently far to be properly evaluated. Chapter 7 therefore describes progress to date and outlines the probable future timetable currently being envisaged.
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3.4. ANALYSIS OF THE EXTENT OF ACHIEVEMENT OF THE
PROJECT GOAL AND PURPOSE

3.4.1. This section of Chapter 3 of the report considers the extent to which the goal and purpose of the Regular and Special Sahel Grant projects, as mutually agreed by AID and the Bank and as set out in paragraphs 3.2.8. and 3.2.9. above, have been achieved. This is done by assessing the overall development of the Bank Group during the 1970's. Once we have reviewed in general terms the overall situation of the Bank as a development finance institution, and how it has achieved this over the period, we can go on in subsequent chapters to evaluate the specific contribution of the Regular and Special Sahel Grant projects.

3.4.2. In this section, therefore, after briefly considering the Bank Group's history, the Group's loan record is reviewed, assessing progress towards the performance targets established in terms of increased lending and disbursement levels. The work of the Bank Group through the project cycle is considered, with particular reference to the measures taken internally to identify areas where improvements in procedures and changes of policy are needed. The personnel situation of the Bank is reviewed briefly, noting the establishment of the Training Centre and the steps being taken to improve terms and conditions for Bank Staff and to provide a career structure.

3.4.3. Outline of the African Development Bank's History

3.4.3.1. It is not intended in the report to give any more than a very brief outline of the Bank Group's development to date. The 1977 Project Paper and the March 1977 evaluation provide more detail.

3.4.3.2. The African Development Bank came into being in September 1964 when 33 African countries ratified its charter, and it started work in July 1966. Since then, membership has increased to 48 countries. The agreement establishing the Bank specified the following objectives:-

- (a) to strengthen African solidarity by means of economic cooperation between African states;
- (b) to accelerate the development of the extensive human and material resources of Africa in order to stimulate the economic and social progress of the region;
- (c) to coordinate national plans of economic and social development for the promotion of harmonious growth of African economies and for the expansion of African trade, in particular inter-African trade.

3.4.3.3. ADB decided from the outset to keep the membership, and thus voting rights and capital stock, purely African. It received no funds initially from developed countries, relying on capital shares from member countries varying according to a formula based on population, gross national product, foreign trade and Government revenues. Subscribed capital has increased from UA 215m in 1967 to UA 1,200m in 1979 of which UA 260m is paid in. The Bank is able to raise capital loans on the international money market or from bilateral donors using the uncalled subscribed capital as collateral.

3.4.3.4. ADB lending terms are similar to those of IBRD and other regional development banks, i.e., with a rate of interest typically between 6 and 8% p.a., repayment over 12 - 15 years and a grace period of two to five years. It became apparent that a "soft" loan facility was needed for the poorer members of the Bank whose economies faced enormous difficulties in the face of international and

national economic conditions during the 1970s. Also the changing priorities of development towards projects with lower economic returns in the agricultural and social sectors meant that Bank terms were too demanding.

3.4.3.5. Therefore in 1974, the African Development Fund was created, providing finance on concessional terms (1% annual interest, sometimes not required, repayment over 40 years with a ten-year grace period and a 0.75% service charge). Membership of the Fund was opened up to non-African countries in order to command greater resources. In 1974 there were 15 participants with a total capital of FUA 950 million. The United States became a participant in 1976. The Fund has a separate Board of Governors, but uses the staff of the Bank for operational purposes. The President of the Bank is ex-officio President of the Fund.

3.4.3.6. In 1976 ADB also took on the task of administering the Nigeria Trust Fund which was established to further development loans to the least developed countries of Africa with special emphasis on regional projects.

3.4.4. Analysis of the Bank Group's Loan Record

Overall Position

3.4.4.1. Table 3.5. provides a summary of the growth in the volume of lending and number of loans between 1967 - 71 and 1979, by the African Development Bank, the African Development Fund and the Nigeria Trust Fund (NTF). This shows that the Bank Group has almost reached the annual lending targets that were established at the time of the reorganisation of the Bank's management and administration structure in May 1977 and which are included in the 1977 Project Paper. These targets were for the Bank Group:-

Table 3.5. -
Growth in Lending by ADB Group, 1967 - 71 to 1979

(a) Annual Lending

	<u>ADB</u>		<u>ADF</u>		<u>NTF</u>		<u>Total No. of Loans</u>
	<u>No. of Loans</u>	<u>Amount Approved '000 UA</u>	<u>No. of Loans</u>	<u>Amount Approved '000 FUA</u>	<u>No. of Loans</u>	<u>Amount Approved '000 UA</u>	
1967 - 71	27	49,089	-	-	-	-	27
1972	17	25,220	-	-	-	-	17
1973	16	35,550	-	-	-	-	16
1974	25	73,650	17	42,000	-	-	42
1975	28	85,945	23	83,680	-	-	51
1976	25	80,450	18	71,950	1	2,000	44
1977	31	127,083	24	127,515	6	24,620	61
1978	33	157,910	31	155,070	6	24,320	70
1979	35	207,895	30	188,151	3	13,430	68

(b) Cumulative Lending

1967 - 71	27	49,089	-	-	-	-	27
1972	44	74,309	-	-	-	-	44
1973	60	109,859	-	-	-	-	60
1974	85	183,509	17	42,000	-	-	102
1975	113	269,454	40	125,680	-	-	153
1976	138	349,904	58	197,630	1	2,000	197
1977	169	476,987	82	325,145	7	26,620	258
1978	202	634,897	113	480,215	13	50,940	328
1979	237	842,792	143	668,366	16	64,370	396

Source: ADB Compendium of Statistics
1967 - 79
April 1980

- (a) approve more than 70 projects annually;
- (b) commit more than \$600 million annually.

At 1979 conversion rates between the US dollar and each of the Bank and the Fund's Units of Account (see Glossary) the Bank approved loans in excess of \$520 million in 1979.

- 3.4.4.2. The increased level of lending is partly due to increased availability of resources to the Bank Group but is also due to the efforts made by the Bank to increase its role in Africa as a leading development finance institution. Excluding lines of credit, the total cost of projects in which the Bank Group participated in 1978 was \$1,665 million. The share of the Bank Group in this was about 25%.

Regional Distribution

- 3.4.4.3. Table 3.6. illustrates the regional distribution of ADB and ADF loans between 1974 and 1978. The key points highlighted here are:-

- (a) the regional distribution of loans for both ADB and ADF is a function of a number of factors, including the relative need of member countries, the number of countries in each region, and resource availability;
- (b) accordingly significant fluctuations are recorded from year to year in this distribution and there are no observable trends in either ADB or ADF lending by region;
- (c) West Africa accounts on average for one third of loan approvals for both the Bank and the Fund;
- (d) North Africa, which contains a number of countries in ADF Category C (currently countries with a per capita income above \$400 p.a. and not therefore eligible for ADF assistance at the moment under the rules of the Fund) has received comparatively little from the Fund: the loans received by countries in this region in 1978 were largely as a result of changes in ADF classifications;

Table 3.6. -
Regional Distribution of ADB and ADF
Loan Approvals, 1974 - 78

	<u>%</u>					<u>Yearly</u> <u>Average</u> <u>1974-78</u>
	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	
<u>(a) ADB</u>						
West Africa	36.0	35.5	39.9	38.7	30.8	36.1
Central Africa	10.9	20.4	20.7	9.7	27.8	17.9
East Africa	24.2	27.2	19.5	36.5	19.5	25.4
North Africa	28.9	16.9	19.9	15.1	21.9	20.5
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
<u>(b) ADF</u>						
West Africa	26.0	44.5	23.3	34.2	31.8	32.0
Central Africa	25.4	23.3	35.4	12.8	17.4	22.8
East Africa	19.9	32.2	31.3	53.0	34.5	34.2
North Africa	28.7	-	10.0	-	16.3	11.0
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Annual Reports
ADB and ADF

Note: This is according to ADB regional groupings
(see Glossary).

- (e) East Africa, which has a large number of poorer countries in ADF Categories A and B, has received the highest share of ADF financing over the period.

Sectoral Distribution

3.4.4.4. Table 3.7. provides a sectoral breakdown of loan approvals, for the period 1975 - 1979. The key points emerging from this table are:-

- (a) agricultural projects are taking an increasing share of ADB loan approvals, in line with the increased priority given to this sector by the Bank;
- (b) the two predominant sectors within ADB of transport and public utilities (telecommunications, water supply and sewerage, power supplies) have had their share reduced from over 75% of the total in 1975 to just over 50% in 1979;
- (c) in 1978 and 1979 the Bank made its first loans in the fields of Health and Education;
- (d) lending to development banks and for industrial development has fluctuated around 20% of the total during the period;
- (e) reflecting the special priorities of the African Development Fund and the generally lower economic returns expected from them, agricultural and health and education projects account for over 40% of the Fund's loan approvals over the period and in all but 1976 accounted for approximately 50% of all loan approvals;
- (f) transport projects account for a similar percentage of the Fund's projects as for the Bank's projects, i.e., about one quarter of the total in each case.

Table 3.7. -
Sectoral Distribution of ADB and
ADF Loan Approvals 1975 - 79

	<u>%</u>					<u>Yearly</u> <u>Average</u> <u>1975-79</u>
	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	
(a) <u>ADB</u>						
Agriculture	8.4	9.8	12.0	22.4	27.3	16.0
Transport	29.6	30.3	26.2	15.5	22.3	24.8
Public Utilities	45.5	32.7	44.6	39.9	27.6	38.0
Industry and Development Banks	16.5	27.2	17.2	21.1	19.0	20.2
Health and Education	-	-	-	1.3	3.8	1.0
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
(b) <u>ADF</u>						
Agriculture	34.7	18.5	31.6	38.2	41.5	32.9
Transport	25.5	11.8	36.4	33.1	23.5	26.1
Public Utilities	18.3	45.9	10.0	9.2	21.9	21.1
Industry and Development Banks	-	-	3.9	-	5.3	1.8
Health and Education	21.5	23.8	18.1	19.5	7.8	18.1
Total	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: ADB Compendium of Statistics
 1967 - 79
 April 1980

- 3.4.4.5. With regard to the Bank Group's increasing emphasis on agricultural development projects, 1978 was the first year in which this sector received the highest allocation of new lending for the Bank Group as a whole, at \$117.2m, or 27.7% of the total. In 1979 this position was increased to \$177.6m, or 34% of the total.
- 3.4.4.6. The 1978 Annual Report records that the Bank Group's lending to the agricultural sector in 1978 was significant in terms of its wide coverage of important sub-sectors, such as food crop and livestock production, particularly in countries heavily dependent on food imports. There was also emphasis on increased production of cash crops such as coffee, sugar, tea and cocoa, and an intensification of rural development by expanding irrigation and rural water supply facilities. Apart from contributing to increased supply of foreign exchange, these projects provide an important means of increasing rural incomes and welfare.

Conclusion

- 3.4.4.7. In conclusion, the above analysis indicates that the Bank Group has achieved notable success in expanding its lending operations during the latter part of the 1970s, and in adjusting its pattern of lending to meet the basic development needs of member countries.
- 3.4.4.8. An analysis of lending approvals gives, however, only a general picture of the Bank Group's progress. It is possible that, by setting performance and development targets primarily in terms of the number and volume of new loans, the Bank Group may be paying insufficient attention to the supervision and implementation of projects. This is considered below, first by reviewing the disbursement records of the Bank and the Fund and then by considering the project cycle and the way the Bank manages it.

3.4.5. Analysis of the Bank Group's Disbursement Record

- 3.4.5.1. During the past few years there has been much concern expressed within the Bank that the rate of disbursement on projects is slow, especially as far as the Fund is concerned. This concern is generally based on consideration of ratios of cumulative loan approvals and disbursements, as in the Annual Reports of the Group.
- 3.4.5.2. For example, the 1978 Annual Report shows that in that year cumulative disbursements for the Fund as a percentage of cumulative loan approvals stood at 16.7% in its fifth year of operation, which was an increase from the level of 11.3% the year before. The 1978 position for the Bank was a ratio of cumulative disbursements to approvals of 42.9%, an increase from 42.1% the previous year. The Annual Report notes that disbursements improved in 1978 because of the implementation of new loan administration procedures. A similar situation, with higher percentages, is obtained if a ratio is calculated of cumulative disbursements to date against the cumulative volume of loans for which disbursements have started.
- 3.4.5.3. However, cumulative disbursements ratios are not entirely satisfactory measures of disbursement performance, particularly when comparing ADB and ADF, because of the high proportion of recent loans in ADF's figures.
- 3.4.5.4. In Table 3.8. the percentage disbursement at December 31, 1979 of all loans approved in specified years, is set out for the Bank and the Fund.
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Table 3.8. -
Percentage Disbursement to December 31, 1979,
of Loans Approved, 1973-79, ADB and ADF

		All loans						
		<u>Year of Loan Approval</u>						
		<u>1979</u>	<u>1978</u>	<u>1977</u>	<u>1976</u>	<u>1975</u>	<u>1974</u>	<u>1973</u>
ADB		1 (35)	6 (33)	45 (31)	77 (25)	83 (28)	83 (25)	91 (16)
ADF		0 (30)	9 (31)	15 (24)	23 (18)	49 (23)	69 (17)	- (-)

() = no. of loans

Source: ADB and ADF Statement of Loans
December 31, 1979

- 3.4.5.5. This seems to confirm a rather slower rate of disbursement overall for the Fund, although it is interesting to note that by the sixth year of the loan, the percentage differences are not great.
- 3.4.5.6. It is to be expected that Fund projects viewed as a whole will experience slower disbursement as compared with the Bank because of the high proportion of Fund resources devoted to agricultural and social projects which have longer gestation periods and also because the Fund's resources are directed towards the least developed member states.
- 3.4.5.7. Currently an interesting analysis is being carried out by the Policy Planning and Development Department into the comparative Fund/Bank disbursement rates. To date, only the sub-sector of roads projects, which play a significant role in both Bank and Fund lending, has been analysed.

3.4.5.8. This analysis of road sub-sector projects suggests that, when looked at in more detail, ADF's disbursement performance in this sub-sector is not worse than that of the Bank. Both when comparing first, delays between loan signature and date of first disbursement, and secondly the cumulative disbursement, there are no significant differences in overall terms between ADB and ADF performance for this sub-sector of projects. Differences at more detailed levels of analysis in some instances favour the Fund.

3.4.5.9. The 1977 Project Paper contains the result of the 1973 AID study of the Bank which estimated that the Bank on average reached a cumulative disbursement of 90% in the sixth year of a project loan, which was consistent with IBRD and AID performance. Table 3.8 above suggests that this has not changed a great deal. Discussions with officials of other lending institutions such as the World Bank and European Development Fund suggest that the same concern as expressed in the Bank to improve disbursement rates exists in those institutions.

3.4.5.10. The Bank has continued to take steps to identify where procedures and organisation need to be revised in order to improve disbursement. Major contributions have been the Price Waterhouse Review of Disbursement Procedures of the African Development Fund (September 1977) which was followed by the preparation of a detailed Manual of Operating Procedures, and the creation of an internal audit capability. In April 1978 the Final Report of the First Review Committee on the African Development Fund was published, which took further some of the Price Waterhouse proposals, but which was also wider in its coverage. Both of these contained detailed recommendations, some of which have been implemented, some of which have not.

- 3.4.5.11. The creation of the Loan Administration Division in the Department of Finance in 1977 is also a positive step to improve disbursements.

Conclusion

- 3.4.5.12. The difference in disbursement rates between ADF and ADB may be exaggerated by the cumulative statistics that are often used for the comparison.
- 3.4.5.13. Nonetheless, the Bank is correct to be continually seeking ways to reduce the time between loan approval and effectiveness and final disbursement. To this end, it is recommended that the Bank continue to implement as soon as possible the accepted recommendations of the various studies and reviews of procedures which have not yet been carried through.

3.4.6. The Project Cycle

- 3.4.6.1. In the two previous sections, we have considered the results, or outputs, of the Bank's strengthening of its institutional capability to identify, appraise, and supervise projects and loans. In this section, we examine the present position with regard to the inputs to those outputs.

Identification, Preparation and Appraisal of Projects

- 3.4.6.2. Currently, project ideas come to the Bank's attention from a number of sources, including enquiries from the prospective borrower, information supplied by other agencies, and the potential projects file kept on each country by the Operations Department. The Bank sometimes sends identification missions to member countries to build up and update these files. The overall responsibility for project identification lies with the Operations Department, in co-operation with the Projects Department. Once identified and accepted by management, potential projects enter the pipeline of projects.

- 3.4.6.3. The Bank is not satisfied that the current somewhat ad hoc procedures enable it to generate sufficient projects and draw up a lending programme which is soundly based on the policies and priorities of the Bank and member states. The Acting President has recently established an internal committee to review the Bank Group's policies and procedures, and advise on ways to improve the Group's project generating capacity. In line both with internal thinking in the Bank and with advice that has been given from outside (e.g. by the First Review Committee of the ADF), the Bank Group is moving towards a system of sector and country programming along the lines used by the World Bank. This will provide the Bank Group with the basic material for defining priorities in drawing up lending programmes.
- 3.4.6.4. Once projects are identified, it is the responsibility of the Projects Department to prepare and appraise them. On average, from entering the pipeline of projects to loan approval takes about three years, but as will be shown in Chapter 4 in relation to the projects for which AID financed feasibility studies, there are considerable variations.
- 3.4.6.5. Bilateral technical assistance is intended to play a major role in the Bank Group's identification and preparation of projects, but it seems that currently this is not having the impact intended. This is discussed in detail in Chapter 4 in respect of the Regular and Special Sahel Grants. The key problems identified so far by the Acting President's internal review committee are:-

- (a) the lack of country programmes and sector analyses, and thus a slow rate of study identification;
- (b) the excessively long contracting cycle for pre-investment studies;
- (c) the small size of bilateral grants which are tied to procurement of goods and services from donor states.

3.4.6.6. Other problems which the Bank Group encounters at the project preparation stage, which are discussed in Chapter 4, are:-

- (a) delays between the various stages of project preparation, e.g. between the feasibility study and final design study for an infrastructure project, particularly when more than one financing source is needed;
- (b) delays caused by revisions needed to consultants' work which could be avoided, or reduced, by closer supervision of the consultant's work.

3.4.6.7. Once pre-investment studies are complete, the Projects Department usually sends an appraisal mission to the country and project site to formally appraise the project. Generally this occurs within a short time of the completion of studies, sometimes before final reports have been presented. The period for internal review of the subsequent appraisal report is very short, often less than a month, before submission to the Loans Committee. This is considerably shorter than the World Bank where several months can elapse, and may not leave sufficient time for full consideration of the issues.

3.4.6.8. As the work of the Bank Group has developed, increased attention has been given to standardising procedures and methodology for project appraisal. It is noticeable that there was much greater variability in project appraisal report formats and contents in the early years of the Bank Group's operations than is the case now. There is still a need to go further, a point which has been recognised by the creation in the Projects Department of the Central Projects Unit.

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3.4.6.9. This Unit will have the responsibility for reviewing all appraisal reports to ensure a high level of quality is maintained. It will also be responsible, amongst other things, for developing the format and contents of the appraisal report. Two of the current US technical experts funded by the Regular Grant have been appointed to full-time positions in this Unit, which is intended to play an important role in the improvement of the Bank Group's internal operations and procedures for appraising and supervising projects. Currently the CPU is detailing its terms of reference, but its members are not yet working for it on a full time basis.

Monitoring and Supervision

3.4.6.10. At the moment it appears to be the situation that the Projects Department's prime responsibility for a project ends with the preparation of the appraisal report. The Operations Department effectively takes over the responsibility for the project at the Loans Committee stage, and it is the Loans Officer for the country concerned who has the prime responsibility for supervising the implementation of the project and the loan. The Project Officer is generally called in for supervision purposes only when technical difficulties arise in implementation, but this is generally too late to prevent difficulties occurring.

3.4.6.11. Although this is generally the situation as described to the evaluation, it is not in accordance with the President's Administrative Instructions which were issued in March, 1977. There, both the Operations and Projects Department are given responsibilities for monitoring and supervising projects under the overall co-ordination of the Operations Department.

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3.4.6.12. It may be that the present situation is one result of the high priority given to increasing the portfolio of projects. The Projects Department's resources are stretched, and there may be a tendency to press ahead with appraising new projects to meet lending targets rather than devoting sufficient time to supervise existing projects.

3.4.6.13. There seems to be general agreement within the Projects and Operations Departments that greater emphasis needs to be placed on monitoring and supervising projects, and that in future Project Officers must retain and exercise responsibility for supervising project implementation from a technical point of view. Indeed, the Acting President has already made this clear. The advantages of having Project Officers monitor and supervise the technical implementation of the projects they appraise are:-

- (a) Project Officers will ensure that they design and appraise projects adequately if they know they will have considerable responsibility for implementation;
- (b) appraisal reports are more likely to be prepared in such a way that they can be used as basic documents for following implementation: currently they provide considerable justification for a project but generally do not provide a sufficiently detailed or realistic implementation plan;
- (c) with regular supervision visits to project sites and regular receipt of adequate progress reports, technical problems and difficulties in implementation are more likely to be foreseen and dealt with before they become serious;
- (d) Project Officers can provide assistance to host country technicians with responsibility for project supervision.

3.4.6.14. We consider that a distinction should be made between the monitoring and supervision of project progress, which should primarily be the responsibility of the Projects Department, and the monitoring and supervision of loan progress which should be the responsibility of the Operations Department. This need not affect the Operations Department's co-ordinative responsibility for supervision.

Post Evaluation

3.4.6.15. Like all development finance institutions, the Bank Group is giving increasing attention to post evaluation of projects. The establishment early in 1979 of the post evaluation unit in the Department of Policy Planning and Development was an important step. Also, it is hoped that this evaluation will provide lessons and guidelines to be used in future Bank post evaluations.

3.4.6.16. The post evaluation unit so far has made progress in defining the evaluation methodology to be used and is currently engaged in post evaluating the road transport sub-sector, with detailed reports on three projects (including the Mano River Bridge and access roads at the Liberia-Sierra Leone border, which is also covered in this evaluation).

3.4.6.17. It is essential that the work of the unit is adequately linked and integrated into that of the Projects and Operations Departments if it is to be successful in feeding lessons and experiences from post evaluations into the process of project design. This is perhaps one of its most important tasks during its first year.

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3.4.6.18. Both this evaluation and the post evaluation unit have found that neither consultants' reports nor appraisal reports are designed with future post evaluations in mind. This makes post evaluation considerably more difficult. It should be a task for the post evaluation unit to advise on how appraisal and consultant reports should be improved so that they provide the necessary basis for post evaluation.

Conclusions and Recommendations

3.4.6.19. We support the general move towards country programming and sector analyses as an important step in improving the project generating capability of the Bank Group within clearly defined priorities.

3.4.6.20. We recommend, therefore, that the Bank should take the necessary steps to introduce country and sector programming as soon as possible on an operational basis.

3.4.6.21. We further recommend that, as the introduction of country and sector programming would be directly in line with the goal and purpose of AID technical assistance to the Bank, that AID and ADB should consider whether the next phase of the Regular Grant Project should include increased technical assistance for country and sector programming. The funding of the Special Studies Co-ordinator and the Health Sector pre-investment studies are moves in this direction.

3.4.6.22. With regard to project appraisals, we are concerned that this may be done rather too quickly at present, to the detriment in some cases of good project design and later implementation. We recommend, therefore, that this be reviewed by the Central Projects Unit.

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- 3.4.6.23. To ensure that the work of the Central Projects Unit starts as soon as possible, we recommend that the staff appointed to the unit be released from their former responsibilities without delay.
- 3.4.6.24. As far as project supervision is concerned, we consider that a distinction should be drawn between the supervision and monitoring of projects, and the supervision and monitoring of loans.
- 3.4.6.25. We recommend, therefore, that the Projects Department should become more involved than it is at present in monitoring and supervising project progress from a technical point of view.
- 3.4.6.26. With regard to post evaluation, we believe that the post evaluation unit has an important role to play in providing inputs to improved project design and implementation. We recommend that the unit advise on how appraisal and consultants' reports should be improved so that they provide the necessary basis for evaluation.

3.4.7. Personnel

- 3.4.7.1. A key resource of the Bank is its personnel. One of the scarcest African resources is qualified and experienced Africans, and the Bank has to compete with member governments' own institutions to obtain the professional staff it needs.
- 3.4.7.2. At the moment, the Bank does not have a manpower plan forecasting its staff requirements several years ahead. Proposals are, however, being made within the General Administration and Personnel Department for the development of more systematic forecasting of manpower needs.

- 3.4.7.3. Currently the Bank seems able to fill the vacancies for professional posts which arise, and frequently many applications are received in response to advertisements placed. However, while the qualifications of successful applicants are generally high, they sometimes lack both general experience and experience specific to development banking. The development of a comprehensive practically oriented training programme for Bank staff is, therefore, of paramount importance.
- 3.4.7.4. Before the establishment of the Training Centre in February 1978, certain limited training took place:-
- (a) on-the-job training by technical assistance, which proved of limited value due to the inadequate number of counterparts and the heavy regular work schedules of the technical experts;
 - (b) attachment to, or participation in seminars organised by the World Bank, the Inter-American Bank and the Bradford Project Planning Centre.
- 3.4.7.5. In addition, the Bank mounted five project appraisal courses for staff from institutions in member countries during the period 1973 - 75.
- 3.4.7.6. As part of the Bank's reorganisation of its operational and administrative organisation, the Training Centre was established in February 1978 as an autonomous entity attached directly to the Presidency. This reflected the need felt in the Bank for a systematic and continuous commitment to the training of its own staff and those in member country institutions, with the goal of enhancing the impact of the Bank's operational activities in member countries.

3.4.7.7. The courses for Bank staff offered or planned since the Training Centre was established are:-

- (a) orientation courses for new staff, held twice a year for professional, sub-professional, and general service staff: technical experts are now also invited;
- (b) courses in project appraisal, procurement, loan disbursement, and the role of Loan Officers, to upgrade professional skills and on-the-job performance;
- (c) management development courses to render supervisors more effective;
- (d) language courses;
- (e) individual participation in courses and attachment.

3.4.7.8. The Centre has also organised two courses in development banking, one in French in 1979 and one in English in 1980, with participants from the national development banks of member countries. In October 1980 a loan administration course will be held in Nairobi to help acquaint staff from member countries with the procedures of the Bank, and in 1981 there will be a course for managers of rural development projects.

3.4.7.9. Currently, the Centre has developed its policies, which are awaiting approval, and it is anticipated that shortly a manual will be issued setting out the policies, functions, and responsibilities of the Centre.

3.4.7.10. In addition to training needs, the Bank has realised that it is desirable to change the current system of two to three year contracts for its professional staff, in order to provide a permanent career structure and reduce lack of continuity. The Bank has studied this

question in some detail, and the Board has approved in principle the introduction of a permanent career structure with pension rights. It is planned that initially staff would join the Bank for a two year probationary period, after which they would transfer to the permanent staff, if their performance is satisfactory. It is hoped that this can be introduced by the end of 1980. This has not proceeded as quickly as originally planned.

- 3.4.7.11. One problem that the Bank faces is that, during a phase of rapid expansion, staff are sometimes placed in positions for which their qualifications and experience are not appropriate. This is partly because the Bank does not have an adequate placement procedure. Sometimes personnel with particular skills and experience are placed in positions where these are not used. It requires careful personnel management and planning to avoid this.
- 3.4.7.12. The Bank has increased the number of technical experts provided under multilateral and bilateral programmes during recent years. These experts play an important role in bringing specialist skills and experience to augment those of the Bank's own staff.
- 3.4.7.13. Currently the Bank is facing the problem that, while bilateral agencies are keen to increase the number of experts they provide, in many instances they are unable to find suitable candidates. The reasons for this are varied, but it appears that the terms and conditions provided by the bilateral sources are frequently insufficiently attractive. There are considerable variations in the allowances between different countries, which also causes difficulties.

3.4.7.14. When the Bank opens its capital to non-African countries, it seems likely that the technical experts will transfer to the Bank's payroll. One problem to be overcome, however, is the current difference in levels of remuneration between the Bank's own staff and the experts.

3.4.7.15. Table 3.9. sets out the growth of Bank total staff, professionals, and technical experts for 1974 - 79, alongside the growth in lending over the period.

Table 3.9. -
Growth in Staff and Lending 1974 - 79

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Total ADB Group Staff	254	276	319	402	481	601
Total Professional	81	85	98	117	148	187
Total Technical Experts	15	18	14	16	20	24
Cumulative number of Loans	102	153	197	258	328	396

Source: ADB Group
Annual Reports

Thus the number of professional staff has increased by 2.3 times, while the cumulative number of loans has increased ninefold. The number of technical experts has less than doubled.

Conclusions and Recommendations

3.4.7.16. The Bank has taken important steps to strengthen its personnel position with the establishment of the Training Centre, and with the planned introduction of a permanent career structure.

3.4.7.17. We recommend, therefore, that:-

- (a) continued attention be placed on developing the work of the Training Centre;
- (b) the Bank introduce a planned permanent career structure with a pension scheme as soon as possible;
- (c) the Bank take steps to develop forecasts of manpower needs over the next few years, particularly bearing in mind the increased volume of work that will follow if the Bank's capital is opened to non-African countries;
- (d) the Bank continue to explore with the bilateral agencies how they can satisfy ADB's requirements for technical experts.

3.4.8. Procedures Development

3.4.8.1. This report has already referred to the measures that have been taken to analyse where improvements in procedures relating to project identification, preparation, appraisal and implementation are required, and to put forward changes. The reorganisation of the Bank's management and organisation structure that was made effective in May 1977 has not stopped the Bank from trying to identify where improvements can be made.

3.4.8.2. Following the Price Waterhouse Report on ADF Disbursements in 1977, the same firm was commissioned to prepare a detailed Manual of Operating Procedures. This was done, and a Field Trial Version was presented in mid-1979. The manual covers the following:-

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- (a) Programmes for Member States;
- (b) Country Economic Analysis;
- (c) Sector Analysis;
- (d) Project Identification;
- (e) Inclusion of Projects in the Pipeline;
- (f) Project Preparation;
- (g) Project Appraisal;
- (h) Preparation for Board Presentation;
- (i) Project Management;
- (j) Loan Administration and Project Supervision;
- (k) Loan Disbursements;
- (l) Post Project Evaluation;
- (m) Procurement Advisory Unit Activities;
- (n) Bilateral Aid;
- (o) Development Division Activities;
- (p) Statistical Information;
- (q) Use of Borrowers' Financial Statements;
- (r) Planning Operational Activities;
- (s) Mission Organisation;
- (t) Filing Procedures;
- (u) Communications.

3.4.3.3. It was intended that a full field test should be carried out for six months from July 1, 1979, but it seems that this was not carried out as planned and currently the manual is in only patchy use on an individual basis within the Bank. The document, which is two large volumes, requires further revision to make it more manageable and easy to use and it may be one of the CPU's tasks to do this. It will be unfortunate if the manual is not developed further, as all Bank staff with whom this was discussed during the course of this evaluation agreed that a manual is needed.

- 3.4.8.4. It is recommended, therefore, that the Bank takes steps to carry out any further testing of the Manual of Operating Procedures that are needed, then to revise the manual as appropriate and introduce it into each Department.
- 3.4.8.5. As far as the recommendations in the two reports on the ADF (the Price Waterhouse Review of Disbursement Procedures and the Report of the First Review Committee) are concerned, a large number of these have not been acted upon, although progress has been made in a number of areas, with beneficial effects.
- 3.4.8.6. It is recommended that the Bank Group continue to implement the accepted recommendations in these two reports.

CHAPTER 4 PRE-INVESTMENT STUDIES

4.1. INTRODUCTION

4.1.1. The purpose of this chapter is to assess the extent to which the pre-investment studies financed under the Regular and Special Sahel Grants have contributed towards strengthening the capability of the Bank to identify and appraise effectively loan projects, and to monitor and supervise them during implementation, to the social and economic development of member states.

4.1.2. First, the methodology used is described. Secondly, the studies carried out are classified by type, region, and sector, and by subsequent investment status. Thirdly, progress and problems are analysed through the project cycle of which the studies form a part. Fourthly, the socio-economic impact of projects completed to date is reviewed. Fifthly, there is consideration of the Bank Group's requirements for pre-investment studies in order to improve its project generating capacity, and the extent to which the Regular Grant project design might be altered to meet these requirements. Conclusions and recommendations following from the analysis are set out in each sub-section.

4.1.3. This chapter analyses and summarises the data contained in the Status Review Forms in the Annexes.

4.2. METHODOLOGY

4.2.1. Sources

4.2.1.1. The main sources used for information on the studies carried out and subsequent projects were:-

- (a) reports of consultants financed by Regular and Special Sahel Grant funds;
- (b) Bank Group Appraisal Reports;
- (c) Bank Group and REDSO project files;
- (d) Bank Group's Loan Administration Reports at December 31, 1979;
- (e) Bank Group's Statement of Loans at December 31, 1979;
- (f) interviews with appropriate Bank personnel in the Projects, Operations and Finance Departments;
- (g) interviews with consultants who undertook some of the studies.

4.2.1.2. For five projects in four countries the document search and interviews with Bank personnel and other relevant and available people were supplemented by missions of the JEC. These missions were to:-

- (a) Upper Volta, April 14-16, to review part of the Earth Dams Project;
- (b) Senegal, April 16-22, to review
 - (i) Diosmone - N'Dangane Road and
 - (ii) Ziguinchor - Cap Skirring Road and Bridges;
- (c) Benin, April 24-25, to review the dam across the Cotonou lagoon, the new bridge over the lagoon, and the rehabilitation of the existing bridg.;
- (d) Zaire, April 28-30, to review the Kwango, Wamba, Bombo, and Lufimi River Bridges Project.

4.2.1.3. For the mission to Upper Volta and Senegal, the JEC team was Mr. C. Amegavie of the ADB Co-ordination Unit, and Mr. J. Speed, the consultant to the JEC. For the two missions to Benin and Zaire, the Bank was unable to make anyone available, so Mr. Speed went alone.

4.2.1.4. Reports of these missions are included at the end of this Volume.

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4.2.2. Analytical Methods

4.2.2.1. In order to handle the large amount of information and data available in a consistent manner for the projects, a Status Review Form was designed. This covers the following areas:-

- (a) Section 3 : The project history from identification, through pre-investment study, appraisal, loan approval and implementation, identifying and commenting on delays;
- (b) Sections 4 and 5 : The study funded by the Regular or Special Sahel Grant, including the type of study, what its terms of reference were, what reports were produced, what the findings and recommendations were, what the implementation progress and problems were;
- (c) Section 6 : Any other pre-investment studies that have been carried out;
- (d) Section 7 : The ADB appraisal mission and report including any significant differences with the consultant's study, and the funding sources for the project;
- (e) Section 8 : Implementation status of the project and the loan;
- (f) Section 9 : Economic and Social Impact of the project, both planned and actual, including consideration of any assumptions made in the consultant study and appraisal.

4.2.2.2. Copies of these forms for each pre-investment study and associated project are contained in the Annexes.

4.3. THE RELATIVE CONTRIBUTION OF THE REGULAR AND SPECIAL SAHEL GRANTS TO THE BANK'S BILATERAL PROGRAMMES FOR PRE-INVESTMENT STUDIES

4.3.1. Table 4.1. shows the relative size of the bilateral programmes of assistance for pre-investment studies available to the Bank. The data gives cumulative grants for each bilateral programme up to March 31, 1980. The AID programme is by far the largest, accounting for 44% of the total, with Belgium second with 27%. The Regular and Special Sahel Grants are, therefore, extremely important in the context of the bilateral assistance programmes.

Table 4.1
Cumulative Technical Assistance Grants to ADB for
Pre-Investment Studies at March 31 1980:-
Relative Size of Contribution

(in '000 UA Equivalents)

<u>Country</u>	<u>Total Grants</u>	<u>%</u>
USAID Regular	5,239	31
USAID Special Sahel	2,277	13
Total USAID	7,516	44
Belgium	4,650	27
Canada	878	5
Germany	418	2
Netherlands	167	1
Norway	1,168	7
Sweden	509	3
Switzerland	1,093	6
Denmark	707	4
	<u>17,107</u>	<u>100</u>

Source = ADB Finance Department

Note: Individual items may not sum to the total because of rounding.

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4.4. DESCRIPTION OF STUDIES AND SUBSEQUENT INVESTMENT

4.4.1. Number and Value of Studies

4.4.1.1. Table 4.2 provides a list of all the studies which have been contracted, are in the process of negotiation, or are being prepared at the moment, with their contract date, cost and status. Significant points arising from this table are:-

- (a) between 1971 and early 1974, a considerable number of studies were contracted, particularly during 1972 when seven contracts worth \$ 1.3 million were signed;
- (b) between mid-1974 and early 1979 only four contracts under the Regular Grant project and three under the Special Sahel Grant were signed;
- (c) since early 1979 there has been a marked increase in the number of studies contracted and in the pipeline, in particular, studies to prepare terms of reference for pre-investment studies;
- (d) some of the pre-investment studies that follow from these studies to prepare terms of reference are now being contracted;
- (e) although the first Special Sahel Grant was obligated in November 1974, no contracts were signed until the end of 1976.

4.4.1.2. There were two main reasons for the reduction in activity in the Regular Grant project after early 1974. First, as noted in Chapter 3, there was a slow-down in obligations largely as a result of limitations on AID's overall budget. This occurred at a time when the costs of pre-investment studies were increasing substantially for example, the seven studies in 1972 cost \$ 1.3 million, whereas the two contracts signed in 1976 cost \$ 1.06 million.

Table 4.2.
Number, Contract Date, Value, and Status of
all Pre-investment Studies financed by
Regular or Special Sahel Grants

<u>Study</u>	<u>Contract Date</u>	<u>Value \$</u>	<u>Status of Study at May 16, 1980</u>
A. Regular Grant			
1. Tanzania: Oil Delivery Pipeline	4/71	10,566	Complete
2. Sierra Leone/Liberia: Link Road, Mano River Bridge and Access Roads	5/71	123,829	Complete
3. Zaire: Kwango, Wamba, Bombo, Lufimi River Bridges	9/71	165,095	Complete
4. Ivory Coast/Ghana: Accra- Abidjan Highway			
Study I	2/72	130,616	Complete
Study II	5/76	605,736	Complete
5. Senegal: Diosmone - N'Dangane Road	5/72	38,595	Complete
6. Chad: N'Djamena Drainage	8/72	321,284	Complete
7. Senegal: Ziguinchor - Cap Skirring Road	9/72	224,462	Complete
8. Benin: Cotonou Bridges and Dam	9/72	458,068	Complete
9. Upper Volta/Ghana: Telecommunications	10/72	10,000	Complete
10. Zaire: Bukavu - Kindu Road	11/72	150,310	Complete
11. Ivory Coast: Ouangolodougou-Mali Border Road	2/73	258,013	Complete
12. Liberia: Tubman Bridge - Bomi Hills Road	12/73	260,384	Complete
13. Mali: Markala - Niono Road	1/74	231,356	Complete
14. Swaziland: Mahamba - Manzini Road	3/74	284,864	Complete
15. Cameroon: Bamenda - Ekok Road	1/75	419,119	Complete
16. Sierra Leone: Freetown Sewerage	3/76	451,378	Complete
17. Botswana: Health Sector Study TOR	/79	12,175	Complete
18. Rwanda: Health Sector Study TOR	/79	12,175	Complete
19. Central African Republic: Bossangoa Rural Development TOR	10/79	50,000	Complete

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<u>Study</u>	<u>Contract Date</u>	<u>Value \$</u>	<u>Status of Study at May 16, 1980</u>
21. Guinea Bissau: Health Study TOR	3/79	11,650	Complete
22. Seychelles: Praslin Integrated Rural Development TOR	10/79	46,780	Complete
23. Chad: Djermaya - Djimtillo Road	10/77	405,000	In progress
24. Seychelles: Victoria Sewerage	11/79	145,000	In progress
25. Rwanda: Health Sector Study	-	210,891	Contract being negotiated
26. Guinea: Conakry Fishing Port	-	609,000	Contract being negotiated
27. Guinea Bissau: Health Sector Study	-	257,000	Contract being negotiated
28. Seychelles: Praslin Rural Development	-	500,000	Commitment made
29. Central African Republic: Bossangoa Rural Development	-	400,000	Commitment made
Subtotal		<u>6,803,346</u>	
B. <u>Special Sahel Grant</u>			
30. Niger: Tahoua Rural Development TOR	5/76	23,225	Complete
31. Cape Verde: Health Sector Study TOR	3/79	11,650	Complete
32. Upper Volta: Irrigation and other facilities at 4 Earth Dams	11/76	475,000	Complete
33. Upper Volta/Niger: Dori - Tera - Niamey Road	11/76	497,395	In progress
34. Mali: Groundwater Survey	1/77	810,000	In progress
35. Mauritania: 64 Wells	-	610,000	Contract being negotiated
36. Cape Verde: Health Sector Study	-	235,000	Contract being negotiated
Subtotal		<u>2,662,270</u>	
TOTAL		<u><u>9,465,616</u></u>	

4.4.1.3. Secondly, it seems the Bank believed that the "new directions" of the United States Foreign Assistance Act of 1973 giving priority to projects for food production, population planning and health, and education meant that the trunk road and bridge studies which had been financed hitherto would no longer be acceptable for Regular Grant financing. Whether these sectoral limitations did in fact apply as the Bank believed is open to question, but nonetheless it took the Bank some time to adjust, given the orientation of its lending programme at that time towards the infrastructure sectors. The significance of this is discussed further below in paragraphs 4.7.7 to 4.7.9.

4.4.2. Subsequent Investment

- 4.4.2.1. Table 4.3 sets out a schedule of the subsequent investment that has followed completed studies. Because of the changing conversion rates over time between the dollar and the two units of account of the Bank Group, the investment figures are kept in UA or FUA as appropriate. (See Glossary for the conversion rates.)
- 4.4.2.2. As evidence of the leverage achieved with Regular and Special Grants for pre-investment studies, out of seventeen studies which have been completed (other than the terms of reference studies), investment has followed in fourteen instances to date. The Bank has invested UA 47.1 million out of a total investment of UA 106.3 million as a result of \$ 2.4 million worth of studies (which increases to \$ 3.9 million if the completed studies for which no investment has yet occurred are added). The Fund has invested FUA 32.3 million out of a total investment of FUA 45.0 million for \$ 1,763,882 worth of studies.

Table 4.3.
Summary Table of Pre-Investment Studies and
Subsequent Investment by ADB Group
Regular and Sahelian Grants

<u>Project for Which</u> <u>Study Carried Out</u>	<u>Cost of</u> <u>Study</u> \$	<u>ADB Group</u> <u>Investment</u> '000	<u>Total Approved</u> <u>Investment</u> '000
A. African Development Bank			
1. Tanzania: Oil Delivery Pipeline and Storage	10,576	UA 3,000	UA 4,170
2. Sierra Leone/Liberia: Freetown - Monrovia Road Mano River Bridge	123,829	UA 1,900	UA 2,200
3. Zaire - Kwango, Wamba, Bombo, Lufimi River Bridges	165,095	UA 3,500	UA 3,640
4. Ivory Coast/Ghana: Accra-Abidjan Highway			
Study I	130,616)	UA16,300)	UA 49,847
Study II	605,736)		
5. Senegal: Diosmone - N'Dangane Road	38,595	UA 1,100	UA 1,400
6. Senegal: Ziguinchor - Cap Skirring Road	224,462	UA11,345	UA 21,075
7. Benin: Cotonou Bridges and Dam	458,068	UA 4,000	UA 14,020
8. Liberia: Tubman Bridge - Bomi Hills Road	260,384	UA 5,000	UA 9,040
9. Cameroon: Bamenda - Ekok Road (Study)	419,119	UA 950	UA 950
TOTAL	2,436,470	UA47,095	UA 106,342
B. African Development Fund			
1. Chad: N'Djamena Drainage	321,284	FUA 5,000	FUA 6,157
2. Mali: Markala - Niono Road	231,356	FUA 8,500	FUA 13,500
3. Swaziland: Mahamba - Manzini Road	284,864	FUA 8,000	FUA 13,240
4. Upper Volta: 4 Earth Dams, Irrigation Facilities	475,000	FUA10,300	FUA 11,700
5. Sierra Leone: Freetown Sewerage	451,378	FUA 450	FUA 450
TOTAL	1,763,882	FUA32,250	FUA 45,047

Notes: 1. Swaziland, Mahamba - Manzini Road: In addition to the investment shown here by ADF, ADB provided UA 170,000 for final design of one section of the road, to complement the AID financed final design of two other sections of road.

2. Upper Volta Earth Dams: The investment shown here is for the 2 full ADF projects, which includes dam construction as well as the downstream facilities.

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- 4.4.2.3. The volume of Bank and Fund investment to date based on AID financed pre-investment studies as a percentage of total cumulative lending to date is about 6% for the Bank and 5% for the Fund. These percentages are modest within the overall scale of Bank and Fund lending. If loans for industry, development banks, power supply and telecommunications are excluded from the Bank figures, the percentage increases to 10%. For the Fund these sectors are not important, and excluding them does not affect the 5%.
- 4.4.2.4. One reason for the relatively modest share of investment of the Bank following AID financed studies is the low number of studies in recent years when the Bank has been lending at a faster rate. A breakdown of the years of approval of investment following these pre-investment studies shows that in the period 1977 to 1979, seven loans have been approved by the Bank following AID financed studies which is the same number as the period 1973-76.
- 4.4.2.5. Table 4.4. sets out which of the projects funded are complete and which are in progress, as well as three projects where currently no ADB Group investment is planned. The two road projects for which no investment is planned were both shown not to be economically feasible by the consultants' reports. The studies played an important role in avoiding investment that could not be justified. Currently, the Government of Zaire is seeking to introduce the first 100 kilometres of the Bukavu - Kindu Road from Bukavu to Burale into the lending programme as this is the most important section.
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Table 4.4.

Project Status for Completed Studies, at 31/3/80i) With Subsequent ADB Group Investment, project Complete

<u>Project</u>	<u>Date Project Completed</u>
1. Tanzania: Oil delivery pipeline and storage	3/73
2. Sierra Leone/Liberia: Link Road, Mano River Bridge and Access Roads	2/76
3. Zaire: Kwango, Wamba, Bombo, Lufimi River Bridges	1976
4. Senegal: Diosmone - N'Dangane Road	7/76
5. Benin: Cotonou Dam (Bridges still not complete)	12/77
6. Upper Volta: Irrigation and other facilities at Dablo and Tamossogo Dams (2 of the 4 studied by TAMS)	1/80

ii) With Subsequent ADB Group Investment, project In Progress

<u>Project</u>	<u>Forecast Completion Date</u>
1. Ivory Coast/Ghana: Accra-Abidjan Highway	1983
2. Senegal: Ziguinchor - Cap Skirring Road	3/82
3. Liberia: Tubman Bridge - Bomi Hills Road	7/80
4. Mali: Markala - Niono Road	1983
5. Swaziland: Manzini - Mahamba Road	1983
6. Benin: Cotonou Bridges - New Bridge Rehabilitation of Old Bridge	3/81
7. Upper Volta: Irrigation and other facilities at Thiou and Koungny	1983
8. Chad: N'Djamena Drainage	not known
9. Cameroon: Bamenda - Ekok Road (studies only)	not known
10. Sierra Leone: Freetown Sewerage (studies only)	5/80

(iii) With no ADB Group Investment, actual or forecast

1. Zaire: Bukavu - Kindu Road
2. Chad: Djermaya - Djimtillo Road
3. Upper Volta/Ghana: Telecommunications

Table 4.5.
Future Planned Lending by ADB Group in Respect
of Studies Financed by AID Grants

<u>PROJECT</u>	<u>Year of Lending Programme</u>	<u>Proposed Loan</u>	<u>Total Estimated Cost</u>
A. African Development Fund			
1. Botswana: Francistown Hospital	1980	FUA 8.0m	FUA 16.0m
2. Cape Verde: Development of Health facilities	1980	FUA 5.0m	FUA 6.0m
3. Chad: N'Djamena Drainage (Supplementary)	1980	FUA 4.5m	FUA 5.0m
4. Guinea Bissau: Development of Health Services	1980	FUA 4.5m	FUA 5.0m
5. Sierra Leone: Freetown Sewerage and Drainage	1980	FUA 8.0m	FUA 10.0m
6. Upper Volta/Niger: Dori - Tera-Niamey Road (final design)	1980	FUA 1.0m	FUA 1.2m
7. Rwanda: Development of Health Services	1981	FUA 8.0m	N/A
8. Cameroon: Eamenda - Ekok Road	1981	FUA 8.0m	N/A
9. Central African Republic: Bossongoa Rural Development	1981	FUA 8.0m	N/A
TOTAL		FUA 56.0m	-
B. African Development Bank			
1. Seychelles: Victoria Sewerage Phase II	1980	UA 4.0m	UA 4.5m
2. Ivory Coast: Ouangolodougou-Mali Border Road	1981	UA 10.0m	UA 17.0m
3. Guinea: Conakry Fishing Port	1981	UA 10.0m	N/A
TOTAL		UA 24.0m	

- 4.4.2.6. The reconnaissance study for Upper Volta/Ghana Telecommunications was not pursued because it was not considered to have sufficient priority in the development programmes of the two countries.
- 4.4.2.7. In addition to the investment to date, the Bank Group has included in its future lending programme further substantial investment, as set out in Table 4.5.
- 4.4.2.8. In addition, the Bank Group is planning to provide in 1980 FUA 12.0m from the Fund and UA 10.0m from the Bank for 184 kilometres of the Monrovia - Freetown Road, via the Mano River Bridges. This is not based upon the Lyons Associates study of '71-3, however, as this was only concerned with the river crossing and access roads.
- 4.4.2.9. The above lending programme is very tentative, and it is clear already that it is slipping for several projects. It is indicative, however, of the levels of investment that may follow during the next few years as a result of the studies carried out under the Regular and Sahel Grant projects.

4.4.3. Regional Distribution of Studies and Investment

- 4.4.3.1. Table 4.6. provides a regional breakdown of all the studies carried out and in the process of being negotiated and prepared, plus a regional breakdown of the studies which have been followed by investment. The Special Sahel Grant Projects have been excluded because they are all in West Africa with the exception of Chad and Mauritania which are classified by the Bank as Central and North Africa respectively.

Table 4.6.
Regional Distribution of Regular Grant
Studies 1971-80

<u>Region</u>	<u>All Studies</u>	<u>Studies with Investment</u>	<u>Investment Amount '000</u>	<u>%</u>
West Africa	14	8	UA 39,645 FUA 8,950	84 41
Central Africa	9	3	UA 4,450 FUA 5,000	9 23
East Africa	6	2	UA 3,170 FUA 8,000	7 36
North Africa	0	0	0	0
	<u>29</u>	<u>13</u>	UA 47,265 FUA 21,950	<u>100</u>

Notes: 1. This table includes the UA 170,000 for the design on the Mahamba - Manzini Road.

2. The regional distribution is that of the Bank Group (see Glossary).

4.4.3.2. This table shows that the regional distribution of the Regular Grant studies and subsequent investment over the whole period is more skewed towards West Africa than the distribution of Bank and Fund lending as a whole (see Table 3.6 above). This was remarked upon in the March 1977 evaluation, with the recommendation that efforts should be made to secure a better balance in the regional distribution particularly between Central, West, and East Africa. Examination of the contracts signed since 1977 and those currently under negotiation or in preparation, suggests that this has been done: 4 contracts have been in East Africa, 5 in Central Africa, and 3 in West Africa.

4.4.4. Sectoral Distribution of Studies and Investment

4.4.4.1. Table 4.7. sets out the sectoral distribution for all the Regular and Special Sahel Grant studies, and for those with subsequent investment.

Table 4.7.
Sectoral Distribution of Regular and Special
Sahel Grant Studies 1971-80

<u>Sector</u>	<u>All Studies</u>	<u>Studies with Investment</u>	<u>Investment Amount '000</u>	<u>%</u>
Agriculture	9	1	UA -	-
			FUA 10,300	32
Transport	15	11	UA 44,265	94
			FUA 16,500	51
Public Utilities	4	2	UA -	-
			FUA 5,450	17
Industry	1	1	UA 3,000	6
			FUA -	-
Health and Education	7	-	UA -	-
			FUA -	-
	<u>36</u>	<u>15</u>	UA 47,265	100
			FUA 32,250	100

Note: This table includes the UA 170,000 for design on the Mahamba - Manzini Road.

4.4.4.2. Table 4.7. illustrates the predominance of road and bridge projects to date in the programme over the whole period. This is primarily caused by the concentration on roads projects in the period prior to 1974, during which no agricultural or health projects were included in the study list. Since and including 1976, two roads studies have been carried out, (one of which, for the Dori - Tera - Niamey Road, placed the road in the context of an integrated rural development

project); 9 agricultural studies (including two TOR studies and the groundwater studies for Mali and Mauritania) have been carried out or are in the process of being negotiated; and four health sector TOR studies have been completed and the subsequent pre-investment studies are being prepared. There has, therefore, been a major shift in the sectoral distribution of studies financed under the Regular and Special Sahel Grants, in line with the "new directions" of the 1973 United States Foreign Assistance Act.

4.4.3. Types of Study

4.4.3.1. Table 4.8. provides an analysis of the studies carried out or for which a commitment has been made by type of study. Final design and preparation of bid documents was carried out for nine of the road and bridge projects. The last of these was in 1976 (Accra - Abidjan Road Phase II). Currently it is not AID policy to finance such studies out of grant funds.

Table 4.8.
Type of Studies financed by Regular
and Special Sahel Grants 1971-80

<u>Type of Study</u>	<u>Number of Studies</u>
Terms of Reference	7
Reconnaissance	1
Economic and Technical Feasibility	18
Final Design and Preparation of Bid Documents	10
Master Plans for Public Utilities including Organisation, Management and Legal, Financial Studies	2
Groundwater Surveys	2
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Note: Several road studies included both feasibility and final design stages.

4.4.6. US Consultants involved in the studies

4.4.6.1. The studies have been spread through a large number of US consulting firms. Louis Berger International has had the largest volume, with 4 contracts worth \$ 1.13m. Tippetts Abbott McCarthy Stratton (TAMS) have been involved with three worth \$ 879,000 and Gannet, Fleming, Corddry, Carpenter with two worth \$ 824,000. Sanders and Thomas, Inc. received one large contract, and its 51%-owned African subsidiary Santafric two more, giving a total of almost \$ 1 million. Recently, The Analytic Sciences Corporation (TASC) has been heavily involved with Health Sector TOR studies, and is currently negotiating for the Cape Verde Health Sector study itself. The following consultants have carried out, or are negotiating for, one contract each: William Brothers Engineering; Lyons Associates; International Engineering Company (IECO); Wilbur Smith Associates; Black and Veatch International (BVI); Morcom Systems; Stanley Consultants; Frederick R. Harris; Daniel, Mann, Johnson and Mendenhall (DMJM) in association with Checchi and Co; Vista Research; Orgatec; Camp Dresser and McKee; Family Health Care; Dravo Van Nouten; Boston University/CAMER; William Wahler and Associates; and J. Montgomery in association with Gannet Fleming Corddry Carpenter.

4.4.6.2. The specific studies carried out by each consultant are set out in the Annexes.

4.5. PROGRESS AND PROBLEMS

4.5.1. Introduction

4.5.1.1. In this sub-section of the chapter the information contained in the Status Review Forms and Mission Reports is analysed. This is done by following the project cycle through, identifying what has happened at each stage. Where appropriate, recommendations are made. The main areas focussed on at each stage are:-

- (a) the time taken to move from one stage to another, and through the stage; and the procedures involved;
- (b) the performance of consultants, contractors, government, Bank and AID personnel;
- (c) the documentation available to the evaluation;
- (d) particular problems and difficulties encountered which hindered progress, and how they might be overcome in the future.

4.5.2. Project Identification to Signature of Study Contract

4.5.2.1. Here we consider the period between the Bank's first request to REDSO/WA for agreement in principal to fund the study and the contract date.

4.5.2.2. At the outset it should be noted that no regular records of study histories are kept either in the Bank or at REDSO. Currently there is no clear programming setting out the planned timetable for all stages and sub-stages that the study proposal has to go through. Recently, REDSO has started to keep a check list of actual dates at which steps, according to Project Implementation Letter 46, (PIL 46) are achieved, but

these do not exist for the studies prior to 1979. In order to trace study histories it is necessary to go through files, searching for the letters transmitted between the Bank and REDSO. This is a time-consuming exercise, and proved unrewarding in several instances as the required information could not be found.

4.5.2.3. It is recommended, therefore, that when studies are first proposed, a programme and timetable for the stages involved to the point of contract signature should be prepared, and used as a management tool in progressing the study proposal, updating it as required. This is not recommended merely to assist future evaluations, but primarily to improve the control over the contracting period,

4.5.2.4. Firm information on the delays in contracting studies has been found for twenty seven out of the thirty four studies for which contracts have been signed or are currently in negotiation. This is summarised in Table 4.9.

Table 4.9.

Time Period Between ADB Request to REDSO
For Agreement in Principle to Fund the
Study, and Study Contract Date

	<u>Number of Studies</u>
Less than 6 months	4
6 months to 12 months	3
12 months to 18 months	12
More than 18 months	8
	<u>27</u>

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4.5.2.6. Two of the four studies which were contracted in less than six months were Diosmone - N'Dangane Road feasibility and final engineering design in Senegal, and Kwango, Wamba, Bombo, Lufimi River Bridges final design and bid documents in Zaire. Both involved sole-source negotiation, in the first case because of the small size of the contract (\$38,595 in 1972), in the second because the contractor, IECO, has already reviewed the plans of another consultant under AID bilateral financing, and a waiver was obtained. The other two studies were for terms of reference preparation.

4.5.2.7. The longest delay has been with Mauritania 64 Wells which has been under preparation for almost three years. The reasons for the delay with this study include many of those experienced by other studies. In the first place, after REDSO/WA had approved the TOR and they had been submitted to the Commerce Business Daily (CBD) for publication, the American Embassy in Nouakchott expressed a number of reservations about them. As a result REDSO and ADB agreed the TOR were not acceptable, and had them redrafted. Eleven months after the original CBD announcement, a second one was placed, seeking prequalifications. Four firms responded, and all four were prequalified, and invited to submit technical proposals. The process of approving the contractor then took five months, largely because REDSO requested additional information from the Bank on the selection process before approving the Bank's selection in February 1980. The contract is currently being negotiated.

4.5.2.8. The main reasons in the past for delays were:-

- (a) inadequate terms of reference available at the time of ADB's request to AID, requiring several months to sort out;
- (b) the large number of steps involved in the PIL procedure with too many stages where AID's approval had to be sought;
- (c) prequalifying for individual studies rather than keeping a list of prequalified firms to whom restricted invitations to tender could be sent;
- (d) lack of a standard contract containing AID's mandatory requirements;
- (e) long delays in obtaining signatures to protocols of agreement with the Government of the country where the study was to take place.

4.5.2.9. Both REDSO and the Bank recognise the contracting procedure needs to be improved to shorten the process. It is planned to do this by:-

- (a) adopting a standard three-part contract format; this is currently being tested on the Conakry Fishing Port Study;
- (b) combining the Request for Proposal (RFP), cost proposal, and prequalification data in order to reduce the cycle;
- (c) adopting a model Request for Proposals to cover various activities;
- (d) sending copies of the standard contract to firms at the same time as the RFP, to save negotiating time.

4.5.2.10. Altogether, it is anticipated that six to nine months could be reduced in the contracting process if all these changes are implemented. Progress has been made since they were proposed in February 1980, but they need to be followed through carefully if they are to have the desired effect.

4.5.2.11. It is therefore recommended that these new procedures be tested and then implemented with the minimum of delay. A programme for doing this should be established. It is also necessary to prepare a draft revised project implementation letter which explains the new procedures. REDSO and the Bank should then meet regularly to ensure that the new procedures are followed and to resolve problems.

4.5.2.12. Of particular importance is the procedure to be adopted for studies to produce TOR which so far have been \$ 50,000 or less. This means that they are eligible for sole-source contracting. The contracting of TOR studies could be done quickly and efficiently if ADB and REDSO develop a comprehensive list of firms suitably qualified to carry out TOR studies in particular fields, who can be contacted directly without the need for advertising in the CBD. This may not be appropriate in all cases, but selective, controlled use should speed up TOR preparation. If, as currently seems probable, there will be increased emphasis on TOR studies to get projects moving (it has been proposed to use the balance remaining of the FY 1980 obligation to fund such studies), then an efficient procedure is needed.

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4.5.2.13. It is recommended, therefore, that consideration be given to a streamlined procedure for TOR studies in cases where the cost is less than \$ 50,000, including the development of a list of suitable consultants for this work.

4.5.3. Study Implementation

4.5.3.1. The main areas for comment identified by the evaluation are:-

- (a) the time taken to launch the study after contract signature;
- (b) the supervision of the consultancy contract by the Bank and the executing agency of the country concerned;
- (c) the quality of the work produced by the consultant;
- (d) the extent of training involved;
- (e) implementation progress against the original schedule;
- (f) the record of progress maintained between the Bank and REDSO.

Delays in Launching the Study

4.5.3.2. Subsequent to signature of the study contract, two main causes of delay before mobilisation of the consultants have been experienced. First, there have been delays of up to 9 months in opening Letters of Credit with US commercial banks, and secondly, there have sometimes been delays with the host government failing to honour the terms of the protocol of agreement.

4.5.3.3. Now that there is a Regional Controller's Office in REDSO/WA with authority to issue AID Direct Letters of Commitment, the need for Letters of Credit with US commercial banks, which are costly in terms of bank charges as well as taking time to be arranged, is virtually eliminated, and will in future be discouraged by REDSO.

4.5.3.4. The second problem, concerning delays in honouring the protocol of agreement by the host country, might be partly solved if the Bank undertook a launching mission at the beginning of a study as is recommended below in paragraph 4.5.3.8.

Supervision of the Consultant

4.5.3.5. As the evaluation has progressed, it has become increasingly evident that there is a need for increased supervision of consultants by both the Bank and the executing agency of the host governments. Studies and projects where difficulties have arisen because of inadequate supervision are:-

(a) Swaziland: Mahamba - Manzini Road

When the final design and cost estimate for the road were submitted, it was found that, in the opinion both of the Bank and the Swazi Ministry of Works and Communications, that the road was over-designed and too expensive. This led to protracted discussion between the consultant, (TAMS), and the Swazi authorities over a period of more than a year. Eventually the Swazi Government appointed another firm of consultants to reduce the cost of the road. The TAMS study was completed in early 1976, but the ADB

appraisal mission did not take place until early 1978. On the ADB file there is correspondence between the Bank and the Swazi Ministry and Communications which indicates that the Swazi authorities were not aware that they had any supervision responsibilities for the study.

(b) Mali: Markala - Niono Road

An almost identical situation occurred with this study, where the final design prepared by Frederic R. Harris was considered by the Bank and the Mali authorities to be over-designed and inappropriate for the conditions of Mali. The design has had to be revised, after some delay while discussions were held between the consultant, the Bank, and Mali. Once again correspondence on the Bank file refers to the problem of supervision, as the Bank had essentially done no more than review progress reports.

(c) Zaire: Kwango, Wamba, Bombo, Lufimi River Bridges

The problem caused by lack of supervision was a little different here, as it seems that certain aspects of the IECO study, particularly with regard to the boring tests for foundations, were inadequate. This led the construction contractor to carry out work on the foundations for the Kwango Bridge which had to be redone, at some cost. Once again, the executing agency of the host Government, Office des Routes, does not seem to have been aware of its supervision responsibilities.

(d) Upper Volta: Irrigation and other Downstream Facilities for Earth Dams

The mission to Upper Volta was informed by the responsible agency, ONDI, that it had been unable to spare the resources to supervise adequately the TAMS study, and that as a result there were a number of problems with the design prepared.

Subsequently it has been learned that some of these were not due to lack of supervision (e.g. a siphon system of irrigation for cost reasons, rather than the secondary and tertiary canal system preferred by the Voltaics), but some were, and if the results of a study are to be seen to be acceptable, then some supervision is needed.

(e) Senegal: Ziguinchor - Cap Skirring Road

There have been several problems with the Louis Berger alignment for this road (e.g. cutting through sacred forests, crossing stretches of water which are not shown on the plans) which might have been avoided by closer supervision during the design stage.

(f) Liberia: Tubman Bridge - Bomi Hills Road

At the time of appraisal of this project, it appears that the Liberian authorities complained that they had not been allowed to supervise the consultant. This again indicates that when the study was launched, the host country authorities were not adequately informed of their responsibilities.

4.5.3.6. Although consultants should be left to identify what in their professional judgement is the optimum solution, this does not mean that they can be left unsupervised. There is no good reason why a final report should contain proposals or designs which are a surprise to either the Bank and/or the executing agency.

4.5.3.7. The Projects Department in the Bank recognises that supervision of consultants in the field needs to be stepped up. How this should be done needs exploring, because already the Project Officers spend a considerable amount of time reviewing consultant reports, negotiating

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study contracts, and otherwise dealing with consultant studies. One proposal that has been made is for the establishment of a pre-investment unit within the Projects Department. This proposal has the advantage that it would free Project Officers to spend more time on appraisals and follow-up.

4.5.3.8. It has also been suggested that a key task for this pre-investment unit would be to undertake a launching mission to set each study off on a sound basis. This would establish a clear and common understanding between the host government, the consultant, and the Bank about each other's role and responsibilities during the study, and what is required of the study. Certainly the examples given above show that there is a need for the Bank to define how its supervision responsibilities interact with those of the host government's executing agencies.

4.5.3.9. We recommend, therefore, that:-

- (a) the Bank should establish a pre-investment unit in the Projects Department to supervise the implementation of consultant studies;
- (b) the Bank should clarify how its supervision responsibilities and those of the executing agencies in the host countries interact;
- (c) at the beginning of a study the Bank should undertake a launching mission to establish a clear and common understanding between the host government, the consultant, and the Bank about each other's role and responsibilities, and the requirements of the study: thereafter missions may be required at key points in the study and when the draft final report is presented;

- (d) because supervision of studies is of immediate relevance to the effectiveness of pre-investment studies financed by AID grants, AID and ADB should consider whether future US technical assistance could usefully be directed towards strengthening the Bank's capability in this area.

Quality of the Work produced by the Contractor

4.5.3.10. In order to assess the full impact of the pre-investment studies financed by the Regular and Special Sahel Grants, it is necessary to try and assess the quality of the work produced. This can only be done by reference to the available comments, and to changes that were made to the work that was carried out. It should be kept in mind that in particular where final engineering designs are concerned, changes frequently occur between final design and implementation, and that different engineers may prefer different solutions.

4.5.2.11. The evaluation has identified subsequent design changes in the following instances:-

- (a) Markala - Niono Road in Mali (Frederic R. Harris) and Mahamba - Manzini Road, Swaziland (TAMS) to reduce the cost of the road;
- (b) Accra - Abidjan Road, Ghana/Ivory Coast (Louis Berger) where virtually the entire AID financed study has been redone for a variety of reasons, generally to do with changing attitudes rather than the Louis Berger design;

- (c) Ziguinchor - Cap Skirring Road, Senegal (Louis Berger) where four years have elapsed between the study and implementation of the road;
- (d) Kwango, Wamba, Bombo, Lufimi River Bridges, Zaire (IECO) where the Draft Final Report was referred back as unacceptable, and where difficulties were encountered during implementation using IECO's design;
- (e) Mano River Bridge, Liberia/Sierra Leone (Lyons Associates) where there is a reference to their work "not being satisfactory";
- (f) Tubman Bridge - Bomi Hills Road, Liberia (Stanley Consultants) where there may be cost overruns as a result of alleged consultant errors.

4.5.3.12. Some of these problems could have been avoided by better supervision of the consultants, as noted above.

4.5.3.13. In the case of the Black and Veatch contract for N'Djamena Drainage, there were multiple problems in the early stages of the work, and relations between the consultant, the host government, and the Bank were quite bad. These problems seem to have been partially resolved eventually.

4.5.3.14. Some of the problems that have arisen with the designs produced by the consultants are as a result of the application of North American standards, which, it is argued, are not always appropriate.

4.5.3.15. In some instances it may be that the problems arose because inadequate funds were provided in the study for particular aspects, especially geotechnical surveys. This may have been the case with the Accra - Abidjan Road, and with certain of the problems on the Tubman Bridge - Bomi Hills Road. There is a delicate balance between keeping the study costs to the minimum necessary for a satisfactory result and economising too far.

4.5.3.16. It is recommended, therefore:-

- (a) that the quality and appropriateness of consultants' work should be ensured as far as possible by adequate supervision;
- (b) that care be taken to provide adequate funds to enable studies to be completed effectively.

Training Carried Out under the Consultancy Contracts

4.5.3.17. The 1977 Project Paper states:

"Each study financed under the proposed grant amendment should include as one of the contractor's tasks the establishment of a training program for local African staff.

Contractors (i.e. consultants) are to work with African counterparts and at the end of the training prepare an assessment report indicating the skills or expertise acquired."

4.5.3.18. In only one of the consultants' reports is there specific reference to any training, that for Freetown Sewerage. A training programme was devised for local counterparts, including training at the consultant's offices in the United States, but because of the Sierra Leone Government's inability to allocate counterpart staff sufficiently early in the study, the training in the US was dropped.

4.5.3.19. During the JEC Mission visits, executing agencies were asked for their policies on training in association with consultants. All were agreed that this could provide an important source of training and experience for the staff, and in Senegal and Zaire we were informed that this was current policy, wherever possible.

4.5.3.20. It is recommended, therefore, that where possible, and with the agreement of the host country executing agency, training of host country personnel should be included in the terms of reference for pre-investment studies.

Implementation of Studies against the Planned Schedule

4.5.3.21. In several cases studies overran their originally budgeted time considerably. Sometimes this was due to changing terms of reference. There are several cases where comments from the Bank or from the government were delayed by several months, preventing completion of the final report. The Djermaya - Djimtillo Road in Chad is an extreme example of this, with a delay of more than eighteen months.

4.5.3.22. The production of acceptable French versions of reports have also caused problems in certain instances. Where there has been disagreement over the results of the study, as with the Markala - Niono Road and the Mahamba - Manzini Road, considerable delays have occurred.

Reporting Progress of the Studies: ADB and REDSO

4.5.3.23. The evaluation found copies of progress reports which used to be prepared by the Bank on the status and progress of consultant studies. These date from 1974, and were produced quarterly. It seems that they have been discontinued.

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4.5.3.24. We consider that such a report provides an important means of monitoring and supervising consultant studies.

4.5.3.25. It is recommended, therefore, that the Bank, as part of its improvement in programming, monitoring and supervising work, should re-instate a progress report on consultant studies. Relevant sections could be provided to REDSO in respect of Regular and Special Sahel Grant funded studies. It is emphasised that this recommendation is not that such a report should be prepared solely for REDSO.

4.5.4. Delays Between Feasibility and Final Engineering Studies

4.5.4.1. An important problem that has emerged during the evaluation is that of delays between the different stages of a project. Delays between feasibility and final engineering is one, particularly where different financing sources are concerned.

4.5.4.2. Two examples from the Regular Grant projects are the Ziguinchor - Cap Skirring Road in Senegal, and the Bamenda-Ekok Road in Cameroon.

4.5.4.3. With the Ziguinchor - Cap Skirring Road, Louis Berger carried out the feasibility study under an AID grant between August 1972 and December 1973. AID funds were not then available for the final design, so an ADB loan was processed. This took nine months from the date of the submission of the Final Report of the feasibility study, and a further six months passed before Louis Berger was contracted for the final design.

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- 4.5.4.4. In the case of the Bamenda - Ekok Road, the Cameroon Government was initially not keen to take on a UA 950,000 loan for the final design, wanting instead a further grant. There was a delay of more than three years between submission of the final report of the feasibility study in August 1976 and ADB approving a loan in September 1979.
- 4.5.4.5. It is clearly important for effective project implementation and for the full value of the feasibility study to be obtained for the gap between feasibility and final engineering design to be minimised. A major cause of delay would be removed if the feasibility and final design were considered as Phase I and Phase II of a single study, as was the case with the Diosmone - N'Dangane Road and Tubman Bridge - Bomi Hills Road studies. Subject to the outcome of the feasibility study, and the quality of work of the consultant on Phase I, it would be possible to proceed to Phase II, final design, without a second, lengthy round of pre-qualification and international tender.
- 4.5.4.6. For this to be possible, increased accounts of finance need to be made available and programmed at the beginning of the study. Because of the limited size of the Regular Grant, it would probably be necessary to co-finance the whole study in some way. There are several possibilities, for example, Regular Grant financing of Phase I could be coupled with ADF financing of Phase II, or with AID loan financing.
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4.5.4.7. An interesting example of such co-financing occurred with the Cotonou Bridges and Dam project where bilateral AID funds were used for the feasibility study and Regular Grant funds for the final design and preparation of bid documents. This case is interesting because it illustrates that with programming, gaps between the studies can be reduced. AID asked for ADB involvement with final design in July 1971, which was eight months before the feasibility study was completed. The contracting period after the feasibility study was then kept to seven months.

4.5.4.8. The decision of the ADF to make 10% of its annual lending available for studies including final design is important, as this provides a "soft" loan facility which can be combined with Regular Grant and Special Sahel Grant finance.

4.5.4.9. It is sometimes suggested that final design studies should be considered as part of the investment cost and included in the project loan, and this has been done in the past by many institutions. It is not now a favoured policy, however, for the following reasons:-

- (a) final design may take a year or more to complete: in periods of rapid inflation a long gap between the time project costs are estimated and the project is implemented increases the likelihood of major variations in forecast and actual costs;
- (b) feasibility studies are frequently inadequate bases for project appraisal, particularly in terms of the detailed implementation planning;
- (c) although a feasibility study may justify a road project, major changes may come at the final engineering stage when detailed ground investigations occur - the Accra - Abidjan Road is a good example of this.

4.5.4.10. Currently both ADB and the World Bank do not include final design in the project loan as a matter of policy. We support this.

4.5.4.11. It is recommended, therefore, that:-

- (a) the Bank should seek to avoid delays between feasibility and final design by programming finance for the second study well in advance of completion of the feasibility study; this may be done by considering feasibility and final design as Phase I and Phase II of one study;
- (b) AID and ADB should discuss ways in which Regular Grant and Special Sahel Grant funds can be linked with ADB or ADF study loans, or with AID bilateral funds and loans so that (a) above can be achieved;
- (c) the procedures and conditions for granting loans out of ADF funds for the purpose of financing studies should be kept as simple as possible consistent with proper control.

4.5.6. The Period Between the Completion of Final Design and Loan Approval, and Between Loan Approval and Effectiveness

4.5.6.1. Table 4.10 analyses the period between the presentation of the Final engineering design report and the date of loan approval, and between the loan approval and loan effectiveness.

4.5.6.2. It should be noted that date of first disbursement is an imperfect proxy for the date of effectiveness of a loan, which is when the loan conditions have been met, but the Bank does not keep a systematic record of dates when loans become effective.

4.5.6.3. Table 4.10. shows that in the majority of cases, the Bank acts quickly to appraise projects and approve loans once the final engineering design is complete. In three cases, the Kwango, Wamba, Bombo, Lufimi Rivers project in Zaire, the Cotonou bridge and dam project in Benin, and the TIPER Oil pipeline in Tanzania, the delay was three months or less. The high average of fourteen months is caused by the two projects where there were problems with the acceptability of the consultants' designs, i.e. Markala - Niono Road in Mali, and Mahamba - Manzini Road in Swaziland, both of which experienced delays of more than two years.

Table 4.10.

Period Between

(a) Presentation of Final Design and Loan approval

(b) Loan Approval and First Disbursement Regular and Special Sahel Projects

Number of Loans

	<u>Final Design to Loan Approval</u>	<u>Loan Approval to First Disbursement</u>
Less than 6 months	4	1
6 - 12 months	4	9
12 - 24 months	1	7
More than 24 months	2	3
	<u>11</u>	<u>20</u>
	Average 14 months	Average 18 months

- Notes: 1. Of the twenty loans for which information was obtained, four were second loans, including supplementaries which have not been included in column (a).
2. In the case of Upper Volta Earth Dams, the TAMS study was not a preliminary to the construction of the dams, therefore only the Loan Approval to First Disbursement period is of interest. This is also true of the study loans.
3. First Disbursement Date is used as a proxy for the date of effectiveness of the loan, as the Bank Group does not maintain a systematic record of when loan conditions are satisfied.

4.5.6.4. Indeed, it can be argued that the Bank may appraise projects, negotiate and approve loans rather too quickly as evidenced by the delays between loan approval and effectiveness. The major cause of delays after loan approval are the difficulties experienced by the borrower in meeting the loan conditions. Within the projects covered here, the following provide examples:-

(a) Mali: Markala - Niono Road

Although the loan was approved in June 1978, the loan conditions still have not been met. In particular, the Mali Government is currently unable to provide its counterpart contribution of FUA 5.0 million.

(b) Ghana/Ivory Coast: Accra - Abidjan Road

The problems of meeting loan conditions are magnified by the fact that this is an international project. The two conditions where delays were experienced in particular concerned the agreements between the two countries for the maintenance arrangements for the international bridge over the Tano River, and for its restitution should it be destroyed.

4.5 6.5. According to the World Bank representative in Abidjan, delays in obtaining loan effectiveness are also experienced by the World Bank Group. However, we were informed that the normal time taken after loan approval is three to six months, which is significantly less than that experienced by ADB.

4.5.6.6. Both the Price Waterhouse and First Review Committee's Reports into the workings of the ADF recommend that more time be spent at the appraisal and loan negotiation stage to ensure that project design is satisfactory, and that the borrower fully understands the loan conditions and is able to meet them without undue delay. Several loan conditions, e.g. obtaining specimen signatures, signing immunities, could be dealt with during appraisal and loan negotiations. A timetable for satisfying conditions should be agreed at loan negotiations.

4.5.6.7. We recommend, therefore, that:-

- (a) the Bank should consider whether a longer period for appraisal would improve design and expedite implementation;
- (b) all recommendations of the Price Waterhouse and First Review Committee Reports designed to expedite loan effectiveness which have been accepted but not implemented, should be implemented as soon as possible;
- (c) the Bank's programming of projects should monitor and record the periods between loan approval, signature, and date of meeting the loan conditions.

4.5.7. Implementation Progress

4.5.7.1. In this evaluation we have tried to monitor planned and actual implementation of the projects which have been financed, following Regular and Special Sahel Grant supported studies. This has been done with reference to schedules and costs contained in the consultants' reports, the appraisal reports, contracts, and what has actually occurred.

4.5.7.2. We have encountered a certain amount of difficulty in doing this, for the following reasons:-

- (a) early appraisal reports either did not contain schedules of expenditures or disbursements, or if they did provided only an indicative schedule of expenditure, which was referred to as a disbursement schedule;
- (b) Loan Officers do not generally keep systematic records of revisions to implementation schedules contained in the appraisal report made at the time contracts are signed: the Loan Administration Division in the Finance Department prepares revised disbursement schedules for cash flow purposes, but these sometimes conflict with the official disbursement schedule in the Loan Administration Report;
- (c) although the Loan Administration Report prepared every six months contains a summary review of the progress with the implementation of the loan, there is no systematic and regular reporting of the progress of the project, including total expenditure to date and latest estimated cost to completion and revised project (as against loan) completion dates;
- (d) information on project progress is found in different departments, in particular Finance, Operations and Projects, but the Loan Officer in the Operations Department does not currently consolidate it.

4.5.7.3. We were unable to find any diagrammatic or other summary representation of the status of project implementation kept and used for monitoring and supervision purposes by the Bank.

4.5.7.4. The situation described above is partly the consequence of the current lack of involvement of Project Officers in monitoring and supervising projects funded by the Bank, and of the current lack of distinction between the projects and the loan referred to in Chapter 3.

4.5.7.5. We recommended in Chapter 3 that the Project Officers should become involved in project supervision and monitoring as set out in the Administrative Instructions of 1977, and that a distinction should be made between the loan and the project when it comes to supervision. We further recommend that the system of monitoring and supervision should include comparison of planned and actual progress, with explanation of variances both in time and costs, as part of a system of project programming. We suggest that the terms of reference for the Central Projects Unit include the preparation of this.

4.5.7.6. As far as the projects reviewed by this evaluation are concerned, the main points concerning the comparison of the various planned schedules of costs, completion dates, and disbursements with what actually has happened are:-

- (a) the schedules proposed by the consultants are generally quite unrealistic given the time required to move through the project cycle;
- (b) the schedules in the appraisal reports are also generally optimistic with regard to completion dates and dates for final disbursement, where provided;

- (c) the cost of projects has increased considerably in almost all cases over the original consultant estimates because of time delays and design changes;
- (d) in the cases where information on total cost to completion either forecast or actual has been obtained, cost overruns compared with appraisal estimates have occurred: in some cases, especially where this is a result of factors outside the control of the Bank or the borrower, such as the effect of the increase in oil and other commodity prices in the early 1970s, the Bank has covered the resulting foreign exchange gap with a supplementary loan;
- (e) an exception to the above is the Upper Volta Earth Dams project, where the cost of constructing dams directly by ONBI rather than using a contractor has led to cost savings.

4.5.7.7. We have compared the disbursement performance on projects covered by this evaluation both with the average rate for all Bank or Fund projects financed in the same year and, for the road projects, with the average rate for all road projects funded in the same year. Disbursements to December 31, 1979, as a percentage of the total loan are shown for this comparison in Table 4.11.

Table 4.11.
Relative Disbursement Performance to
December 31, 1979, of Projects
Covered by this Evaluation

Project	<u>Year of Loan Approval</u>	<u>This Project %</u>	<u>All Projects in Same Year %</u>	<u>Road Projects in Same Year %</u>
A. <u>ADB</u>				
1. Diosmone - N'Dangane Road	1973	100	92	100(3)
2. Kwango, Wamba Bridges	1973	100	92	100(3)
3. Mano River Bridge	1973	100	92	100(3)
4. Cotonou Dam & Bridge	1975	70	83	72(5)
5. Mano River Bridge (Supplementary)	1975	85	83	72(5)
6. Kwango, Wamba Bridges (Supplementary)	1976	82	77	82(1)
7. Tubman Bridge - Bomi Hills	1977	53	45	56(3)
8. Ziguinchor - Cap Skirring Road (Bridges)	1977	91	45	56(3)
9. Accra - Abidjan Road	1978	5	6	3(3)
10. Bamenda - Ekok Road (Study)	1979	0	1	--
11. Ziguinchor - Cap Skirring Road	1979	10	1	10(1)
B. <u>ADF</u>				
1. Operation Earth Dams	1975	52	49	--
2. Nkondo River - Mahamba Road	1978	0	9	8(7)
3. Markala - Niono Road	1978	0	9	8(7)
4. Freetown Sewerage (Study)	1978	0	9	--
5. Thiou & Koungny Integrated Development	1979	0	0	--

() = number of projects

Note: Tanzania Oil Pipeline (1971) has been excluded because there were few projects approved in total by the Bank in 1971.

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- 4.5.7.7. This shows that generally disbursement on these projects compares well with other Bank and Fund Projects.
- 4.5.7.8. As far as implementation performance of contractors, once contracts have been signed, is concerned, work was completed on time, or within the time specified, or is currently ahead of schedule with the following projects:-
- (a) Ziguinchor - Cap Skirring Road, Senegal;
 - (b) Kwango, Wamba, Bombo, Lufimi River Bridges, Zaire;
 - (c) Rehabilitation of the Existing Bridge, Cotonou Benin;
 - (d) Tano River Bridge, Accra - Abidjan Road, Ghana/Ivory Coast;
 - (e) Earth Dams, Dablo and Tamossogo, Upper Volta;
 - (f) Tubman Bridge - Bomi Hills Road, Liberia.
- 4.5.7.9. Delays in implementation subsequent to contracts has occurred in the following instances:-
- (a) Diosmone - N'Dangane Road, Senegal;
 - (b) N'Djamena Drainage, Chad;
 - (c) New Bridge, Cotonou, Benin (funded by USAID)
- 4.5.7.10. Information was not obtained for the Mano River Bridge crossing and access roads, Liberia/Sierra Leone; the dam across the Cotonou Lagoon, Benin; oil delivery pipeline, Tanzania; although in all three cases no problems of implementation were reported.

4.5.8. Post Evaluation

4.5.8.1. Only one of the projects covered by this evaluation has been post evaluated by the Bank, the Mano River Bridge crossing and access roads between Liberia and Sierra Leone. This is being done by the post evaluation unit in the Policy Planning and Development Department, and is not yet complete. This is being done as part of the unit's evaluation of road sector projects.

4.5.8.2. We have obtained useful information on the impact of this project which is included in the Status Review Form.

4.6. SOCIO-ECONOMIC IMPACT OF COMPLETED PROJECTS

4.6.1. Assessments of the social and economic impact of projects covered by this evaluation are possible only for the following projects which have been completed:-

- (a) Tanzania: TIPER oil delivery pipeline and storage facilities;
- (b) Liberia/Sierra Leone: Mano River Bridge and access roads;
- (c) Senegal: Diosmone - N'Dangane Road;
- (d) Zaire: Kwango, Wamba, Bombo, Lufimi River Bridges;
- (e) Benin: the dam across the mouth of the Cotonou Lagoon;
- (f) Upper Volta: Earth Dams at Dablo and Tamossogo, and the associated downstream facilities,

- 4.6.2. Of the above, (c), (d), (e) and (f) were visited by the JEC field missions. Information on (b) was obtained from the post evaluation unit in the Bank. Some limited information was obtained on (a) by telex from the Managing Director of TIPER.
- 4.6.3. The consultants' feasibility studies and the Bank's appraisal reports should provide the basic material to enable comparisons of forecast and actual impacts, and reasons for differences, to be made. This requires the following:-
- (a) clear statements of project goal and purpose;
 - (b) clear statements of the intended benefits and who is to benefit;
 - (c) clear statements of key assumptions and the mechanisms, or hypotheses, by which they influence the forecast benefits.
- 4.6.4. None of the feasibility studies or appraisal reports provide this. Although there is generally a great deal of information provided in the feasibility study reports, it is frequently difficult to extract the relevant information, in particular the key assumptions used. Further, particularly in the earlier studies, the only benefits calculated for road projects were road user cost and maintenance cost savings, with assessments of wider impacts, e.g. on agricultural and social development, being dealt with in a cursory, unquantified way. Recent studies have improved somewhat, as the attention of development institutions has come to focus on wider issues of socio-economic development, but none of these projects have yet been completed.

- 4.6.5. The Logical Framework approach of AID provides a useful tool in project design which is of assistance to evaluators. The Log Frame prepared by AID for the Cotonou Bridge and Dam has proved most useful in designing the evaluation of the dam part of the project.
- 4.6.6. We recommend, therefore, that, in the course of reviewing project appraisal report formats, the Bank should include clearer statements of project goals and purposes, and of the assumptions supporting the analysis. The AID Logical Framework Analysis provides a useful reference for this.
- 4.6.7. The Status Review Forms and the Mission Reports provide as much information as could be obtained in the time available on the socio-economic impact of the completed projects listed above. Here short summaries of the key findings are provided.
- 4.6.8. Tanzania: TIPER Oil Delivery Pipeline and Storage Facilities
- 4.6.8.1. The apparent goal of this project was to increase the security of crude oil supplies to Tanzania and Zambia. The apparent purpose was to enable larger tankers to use the port at Dar es Salaam, which would also enable efficiency at Dar es Salaam to be improved. It was assumed that Tanzanian oil consumption would grow at 6% per annum, and that 100% of Zambia's and 85% of Tanzania's crude oil supplies would flow through the facilities.
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4.6.8.2. The project was operational in March 1973. According to the Managing Director of TIPER, security, flexibility, and reliability of oil supplies have been obtained, and 85-100,000 tonne tankers, rather than the 18-20,000 tonne tankers previously, can now be handled. According to figures supplied by him, both Tanzanian and Zambian oil consumption has fallen since the facilities were developed, presumably because of the increased cost since 1973, which was not foreseen at the time of the appraisal.

4.6.9. Liberia/Sierra Leone: Mano River Bridge and Access Roads

4.6.9.1. The apparent goal of the project was the development of closer social and economic links between Liberia and Sierra Leone, and the purpose was to remove a "perceived" barrier between the transport sectors of the two economies. Beneficiaries, accordingly, were widely interpreted. Key assumptions, though not explicit, were that the Mano River Union would be an effective organisation in improving the economic complementarity of the two countries, and that the existence of the bridge would help to generate inter-state traffic. By the date of the opening of the bridge it was forecast that 50-60 vehicles per day would be crossing the bridge.

4.6.9.2. The post evaluation unit of the Bank found that:-

- (a) without the improvement of the road itself between Freetown and Monrovia, the bridge can have only very limited impact on inter-state trade, which is currently very small;

- (b) the Mano River Union has not made the progress originally hoped for in developing the economic complementarity of the two countries;
- (c) there are certain administrative hindrances to using the bridge, e.g. the toll charge on the Sierra Leone side;
- (d) traffic levels are about 20/day in 1980, four years after the bridge was opened.

4.6.9.3. The Bank is planning to co-finance 184km of the Freetown - Monrovia Road in 1980 with West Germany. Also, the Tubman Bridge - Bomi Hills Road includes a section of the link road. This should significantly affect the impact of the bridge project.

4.6.10. Senegal: Diosmone - N'Dangane Road

4.6.10.1. The goal of this project was to improve communications in the N'Dangane peninsula, thus assisting the agricultural, fisheries, and tourism of the area. Its purpose was to reduce vehicle operating costs and improve access to markets. Key assumptions were the continued expansion of tourism in Senegal.

4.6.10.2. Although a traffic count in May 1979 indicates that traffic levels already exceed those forecast for the road by the consultants and the ADB appraisal report, the JEC Mission to the project site was left with the impression of a road having been built in advance of the developments that would justify it. For example, the benefits of the road to fishing will only be substantially realised when there is a network of cold centres into the interior. Also, although the number of tourist beds in the area has increased there are indications that occupancy rates are low.

4.6.10.3. Nonetheless, within Senegal's priorities of integrating the regions of the country by means of an ambitious road construction programme, the road plays a significant role. Approximately 35,000 people currently live in the zone of influence of the road.

4.6.11. Zaire: Kwango, Wamba, Bombo, Lufimi River Bridges

4.6.11.1. The goal of this project was to improve interregional communication and trade, in particular the supply of food from the Bandundu Region to the capital Kinshasa, and the supply of inputs and materials into the region from Kinshasa and the port of Matadi. This was to be done by removing the bottlenecks at the Kwango and Wamba Rivers which were served by ferries. Key assumptions were that the roads between the bridges would be maintained, and that access to the main road on which the bridges are situated would be improved. Intended beneficiaries were the populations of the towns and cities along the route and those in the Bandundu region, which is one of the most densely populated in Zaire. The zone of influence of the road, the Route Nationale No.1, and thus the bridges, is very large.

4.6.11.2. The information obtained by the JEC Mission to Zaire, though not complete (i.e. no population data were obtained) shows that the impact of these bridges has been considerable. The main points are:-

- (a) Route Nationale No. 1 between Kikwit and Kinshasa is one of the prime supply routes to the capital; in June 1979, 294 tonnes of food per day were enumerated being transported into Kinshasa along this road, with an average of 230 vehicles per day;

- (b) 100% of this produce has to cross the Bombo and Lufimi Bridges, 80% the Kwango, and somewhat less the Wamba;
- (c) the journey time from Kikwit to Kinshasa (500 km) has been reduced to approximately eight hours as against the many days previously, as a result of replacing ferries with bridges: previously the ferries could not cope with the volume of traffic, leading to long delays at the ferries;
- (d) the roads between the bridges and beyond are in good condition and actively maintained by the Office des Routes.

4.6.11.3. The vastness of Zaire, and the large number of perennial rivers means that bridge construction is a major priority in improving inter-regional communication. This project is a major contribution to meeting that priority.

4.6.12. Benin: Dam Across the Cotonou Lagoon

4.6.12.1. This is the only part of the three-part project of the new bridge (financed by AID), rehabilitation of the existing bridge, and the construction of the dam, that has been completed, since the end of 1977.

4.6.12.2. The goal of the dam was to reconstitute the fishing industry of the Cotonou Lagoon and Lake Nokoué, which had been seriously affected by salt water intrusion after the erosion of the natural sandbar at the mouth of the lagoon had allowed the sea to enter the lagoon during the dry season. The purpose of the dam was effectively to replace the sandbar as a barrier to the sea, allowing salinity levels to decline in the lagoon and the lake.

4.6.12.3. A key assumption was that the concrete gates in the weir, which was included in the design primarily to permit shrimp larvae to enter the lagoon, would be in place during the dry season to prevent sea water intrusion.

4.6.12.4. So far, the impact of the dam has not been successful for a variety of reasons. The story is complex, and explained in more detail in the JEC Mission Report. The following are the key points:-

- (a) after the dam was completed, the gates were left in the weir: at the same time the sandbar closed across the mouth of the lagoon, for reasons which are still somewhat unclear, but the closure of the gates during the rainy season may have been a contributory factor;
- (b) this situation made the dam useless, and with the added problem of dumping of septic tank waste in the lagoon, which was now a dead arm of the lake, a pollution hazard arose;
- (c) during this period, to August 1979, salinity levels in the lake and lagoon fell, and fishing improved, but the shrimp harvest fell because there was no access to the lagoon from the sea;
- (d) in August 1979 the concrete gates were lifted out, and the sandbar breached using bulldozers, allowing the lake to purge itself;
- (e) since then the gates have remained open, and the lagoon has remained open to the sea, leading to an increase in salinity levels and a decline in the fishing catch, with improvement in the shrimp catch.

- 4.6.12.5. An important contributory factor to the problematic history of the operation of this project is the fact that the lifting device for the concrete gates, a crane, has been broken down virtually since the dam was completed.
- 4.6.12.6. In view of the considerable problems encountered with this project, it is recommended that the Bank arrange a supervision mission to Cotonou to identify appropriate remedial action.
- 4.6.13. Upper Volta: Earth Dams at Dablo and Tamossogo, and the Associated Downstream Facilities
- 4.6.13.1. The goal of this project is to provide security of agricultural production and water supplies for humans and livestock in the Sahelian regions of Upper Volta. The purpose of the part of the project with which the TAMS study was associated is the provision of irrigation facilities and watering facilities for livestock and people downstream of the dams. TAMS designed systems for four dams, two have been implemented to date, at Dablo and Tamassogo.
- 4.6.13.2. So far the facilities are not in use, because they were only completed around the turn of the year. The extension agents assigned to the project are currently organising the local management committee and orientating the villagers to irrigated farming.
- 4.6.13.3. People and livestock are currently watering directly in the dam. As previously they have not had a reliable water supply they are obtaining substantial benefits, although the problem of water quality exists.
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4.6.13.4. All those concerned with the project in Upper Volta felt that the watering facilities for both people and livestock would not be used without an intensive campaign to educate the people. One purpose of the livestock watering troughs is to enable veterinary treatment to be supplied through the drinking water.

4.6.13.5. It is recommended therefore, that the Bank discuss with the Upper Volta authorities the steps that are necessary to ensure that the facilities provided are used.

4.6.13.6. The JEC Mission also learned that the Upper Volta authorities are unsure whether the siphon system of irrigation designed will be successful as they are not used to it.

4.6.13.7. It is further recommended, therefore, that the Bank should consider whether technical assistance should be provided to help introduce the system.

4.7. PRE-INVESTMENT STUDY REQUIREMENTS OF THE BANK

4.7.1. In Chapter 3 and earlier in this chapter we noted that the Bank considers that the bilateral technical assistance programmes supporting pre-investment studies, including the AID programme, are not having to the extent originally intended the impact of increasing the Bank's project generating capacity. The reasons for this can be summarised as:-

- (a) the lack of country and sector programmes in the Bank contributing to a slow rate of project and study identification by the Bank;
- (b) the limited amount of funds available in the bilateral programmes for the studies at a time when the cost of individual studies has increased considerably;

- (c) excessively long contracting periods for studies;
- (d) perceived sectoral limitations on the studies that can be undertaken;
- (e) gaps between different phases of the pre-investment study stage, i.e. between feasibility and final design for road projects, because of the need in some cases to obtain finance from different sources for each study.

- 4.7.2. In this subsection we briefly consider how the Regular and Special Sahel Grant projects might be developed to satisfy more closely the Bank's requirements. This brings together points made elsewhere in this chapter.
- 4.7.3. In the first place, it is important for there to be a continuing flow of funds for pre-investment studies, to avoid a reduction in the number of studies that can be undertaken.
- 4.7.4. Secondly, as described in paragraphs 4.5.2.1. to 4.5.2.13 AID and ADB need to reduce the contractual process as they are currently trying to do by simplifying and shortening the steps that have to be followed.
- 4.7.5. Thirdly, as the Bank moves its identification process earlier in the life of a project, and as it undertakes more projects in sectors where standard studies with standard TOR's are less applicable, the need for studies prior to feasibility studies increases. We support the increasing orientation in the Regular Grant project towards sector and TOR studies. The revised forecast budget for FY 1982 for pre-investment studies is more than \$ 2.0 million. To ensure these funds are used (assuming that they are made available) as many TOR studies as possible should be carried out with the balance of the FY 1980 obligation for pre-investment studies not yet committed.
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- 4.7.6. Fourthly, any remaining perception within the Bank that sectoral constraints following the 1973 United States Foreign Assistance Act limits the usefulness of the Regular Grant funds for project generating purposes should be dispelled.
- 4.7.7. We have not been able to identify any studies proposed by ADB to AID which were turned down on the grounds of conflict with the terms of the 1973 United States Foreign Assistance Act, although it seems that at one time the Dori-Tera-Niamey Road was close to it. It seems likely, however, that the belief in the Bank that the sectoral limitations introduced by the Act ruled out many of the major infrastructure project studies financed hitherto by Regular Grants was one of the causes of the reduction in the number of studies carried out after 1974.
- 4.7.8. It now seems that the sectoral limitations issue is much less significant than before. The Bank's own sectoral policies and those of its member states have moved in the same direction as those of AID. Consequently, the Bank takes care to design projects and studies in such a way that they benefit the most disadvantaged population groups. Indeed, it was by placing the Dori-Tera-Niamey Road in the context of a comprehensive integrated rural development programme that the feasibility study became acceptable to AID for funding.
- 4.7.9. Fifthly, the Bank's requirement for smoother transition from stage to stage, and to ensure that final design studies are financed despite the limited grant funds available can be met by programming joint financing of studies as described in paragraphs 4.5.5.6. to 4.5.4.11. above. This may not mean using grant finance for final design studies, but should enable gestation periods for projects to be reduced.
- conclude*

4.7.9. We recommend, therefore, that:-

- (a) AID should maintain obligations to the Bank for pre-investment studies and avoid the substantial reductions experienced in FY 1978 and FY 1979;
- (b) AID and ADB should implement the agreed changes to the study contracting procedure without delay;
- (c) the Bank should organise and contract as many TOR studies as possible with the uncommitted balance of the FY 1980 obligation for pre-investment studies;
- (d) ADB and AID should consider how the Regular Grant project can assist the Bank develop country and sector programming;
- (e) AID should be flexible in its use of sectoral criteria when the case for a particular project is strong: further that the Bank should, as a test case, propose and justify to AID a pre-investment study for a major infrastructure project, such as bridges on a trunk road which is of high priority to the country concerned, but not obviously within the AID sectoral guidelines;
- (f) where appropriate, Regular and Special Sahel Grant finance should be used together with other sources of finance to provide complete pre-investment study financing.

CHAPTER 5 TECHNICAL EXPERTS5.1. INTRODUCTION

5.1.1. The purpose of this chapter is to assess qualitatively the extent to which the provision of US technical experts has contributed to strengthening the capability of the Bank to identify and appraise loan projects and monitor their implementation, to the benefit of member states.

5.1.2. First, the methodology used is described. Secondly, the Bank Group's policy with regard to technical experts is briefly described, and how the AID contribution fits into this. Thirdly, the technical expert positions filled by AID contractors are described, followed, fourthly, by an assessment of the impact of their contribution, with particular reference to the strengthening of the Bank's operational capability. Fifthly, the procedures for recruitment, supervision, and appraisal are reviewed, and finally issues concerned with the terms and conditions are discussed.

5.1.3. Conclusions and recommendations are included in each section of the chapter.

5.2. METHODOLOGY5.2.1. Sources

5.2.1.1. The information on which the analysis in this chapter is based was obtained from the following sources:-

- (a) written questionnaires completed by the technical experts and where possible their Heads of Division and/or Departments, followed up by verbal interviews;
- (b) interviews with Bank and REDSO staff involved with the technical assistance programme;
- (c) Bank and REDSO files on the experts;
- (d) General Bank information, such as the Annual Reports.

5.2.1.2. The four technical experts in post at the time of the evaluation completed questionnaires and were interviewed. Completed questionnaires were received from Mr. Steel's Department Head and Mr. Peek's Division Chief. The Head of the Projects Department, Mr. Dossou, in whose Department three of the four experts currently work, and who worked closely with the three previous experts funded by the Regular Grant was also interviewed.

5.2.1.3. The questionnaires used were designed by the consultant and a sub-committee of the JEC, and copies of the forms used are included in the Annexes.

5.2.1.4. After the written questionnaires were returned, the sub-committee reviewed them and decided on the form of the follow up interviews, which were then carried out by the consultant, Mr. Ochieng, Head of the Personnel Division and Mr. Shedid, who is the staff member in the Personnel and Administration Department responsible for technical assistance personnel.

5.2.2. Method of Analysis

5.2.2.1. As with the pre-investment studies, the information obtained from the various sources was consolidated on Summary Review forms which are included in the Annexes. Summary Review forms were completed for the four experts who were in post during the evaluation. Insufficient information was available on the three experts whose contracts were completed some time ago to justify a review form.

No form was completed for the Health Planner who did not arrive until May 1980.

5.2.2.2. The Summary Review forms contain the following information:-

- (a) Section 1: summary data on the expert, his qualifications, previous work experience, and the costs of the contract;
- (b) Section 2: any conclusions and recommendations;
- (c) Section 3: a description and analysis of the recruitment process;
- (d) Section 4: a description of the work performed so far by the expert, including his contribution to training in the Bank;
- (e) Section 5: an evaluation of the impact of his work, particularly with regard to the goal and purpose of the Regular Grant project;
- (f) Section 6: a review of the current appraisal procedures for technical experts;
- (g) Section 7: comments on terms and conditions of service;
- (h) Section 8: any additional comments designed to improve the effectiveness of the US technical assistance.

5.3. POLICY OF THE BANK GROUP WITH REGARD TO TECHNICAL EXPERTS AND THE SIGNIFICANCE OF AID TECHNICAL ASSISTANCE

5.3.1. Although the Bank lays great emphasis on its position as an African institution responding to the needs of African countries, it has recognised from the outset the need to strengthen its professional capability by obtaining the services of technical experts under bilateral and multinational technical assistance programmes. In 1971 there was a total of nineteen technical experts working in the Bank. Since then the number has fluctuated somewhat from year to year, until at April 1, 1980, there were twenty six in post. Over the period, the emphasis has switched away from multilateral to bilateral technical assistance in this area.

5.3.2. Table 3.1. sets out the position at April 1, 1980, by technical assistance programme and kind of technical expert:-

Table 5.1. -
Technical Assistance Personnel
April 1, 1980

<u>Programme</u>	<u>Number of Experts</u>	<u>Designation</u>
1. <u>Multilateral</u> FAO	1	Head, FAO desk
2. <u>Bilateral</u> West Germany	2	Civil Engineer Sanitation Engineer
Belgium	2	Agronomist Transport Economist
Finland	1	Education and Health
Japan	1	Transport Economist
Netherlands	1	Economist
France	1	French Language Teacher
Italy	1	Highways Engineer
Norway	2	Industrial Engineer Power Engineer
Sweden	2	Telecommunications Engineer Economist
Switzerland	4	Agronomist Agro-industrial Engineer Project Analyst Health Expert
United Kingdom	4	Highway Engineer Civil Engineer Agricultural Economist Education Economist
United States	4	Agricultural Economist Sanitary Engineer Financial Analyst Special Studies Coordinator
Total	26	

5.3.2. As far as the AID programme is concerned, a fifth expert, a Health Planner, arrived in early May 1980. The US contribution to the technical assistance of the Bank is currently considerable, accounting for about one fifth of the total.

5.3.3. The major purposes of the technical assistance programme of the Bank are:-

- (a) to strengthen directly the Bank's professional capability by obtaining specialist skills and experience;
- (b) to provide on-the-job training of the Bank's professional staff;
- (c) to improve communication on development matters with Fund participant countries.

5.3.4. It is the Bank's policy that the technical experts work in the Bank in directly operational roles, and not just as Advisers. They are not assigned individual counterparts, but work closely on a day-to-day basis with Bank staff. This is considered to be much more effective in transferring skills and experience than the direct counterpart system. The technical assistance programme of the Bank is not, therefore, directed towards replacing the technical experts with African staff, but to provide an important complement to the staff from member countries. This question is discussed in more detail below, in paragraphs 5.5.4.3. to 5.5.4.8.

5.4. DESCRIPTION OF TECHNICAL EXPERT POSITIONS FILLED BY AID PERSONNEL FUNDED BY THE REGULAR GRANT

5.4.1. Table 5.2. sets out summary information on the experts funded to date by the Regular Grant Project.

Table 5.2. -
Summary of Technical Experts Funded by the Regular Grant Project

<u>Name</u>	<u>Designation</u>	<u>Department</u>	<u>Period of Service</u>	<u>Cost</u>	
				<u>Aid</u> <u>\$'000</u>	<u>ADB</u> <u>F/CFA '000</u>
J. Crosthwaite	Transport Economist	Operations (1)	Dec 1971 - June 1975	126.6	3,010
T. Potter	Financial Analyst	Operations (1)	July 1973 - Feb 1975	168.1	1,330
R. Brown	Agricultural Economist	Operations (1)	Jan 1975 - Jan 1977	120.0	1,680
W. Peek (2)	Agricultural Economist	Projects	Dec 1978 - (3)	190.0	6,680
G. Carmichael	Sanitary Engineer	Projects	Mar 1979 - (3)	201.3	6,680
K. Erickson	Financial Analyst	Projects	Mar 1979 - (3)	181.3	6,680
W. Steel	Special Studies Coordinator	Policy Planning and Development	Oct 1979 - (3)	203.2	6,680
J. Carter	Health Planner	Projects	May 1980 - (3)	146.7	6,680
				<u>1,337.2</u>	<u>39,420</u>

Notes: (1) The Operations Department in the period 1971 - 77 included the Projects Division.

(2) A commitment of \$100,000 has been made for a one year extension to Mr. Peek's contract.

(3) All the contracts still in progress are for two years.

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- 5.4.2. The responsibilities and duties for the four technical experts in post during the course of the evaluation are set out fully in the Summary Review forms. Mr. Carter's job description is also included.
- 5.4.3. Messrs Peek, Carmichael, Erickson and Carter are all in the Projects Department. Their job descriptions are specifically directed to project identification, preparation, appraisal, and supervision of projects. All their job descriptions include training as one of their duties.
- 5.4.4. The job description for Mr. Steel, who is located in the Policy Planning and Development Department, is less directly concerned with project preparation, but is directed towards strengthening the Bank's capability to respond to member states' economic and social development needs within a comprehensive policy framework.

5.5. ASSESSMENT OF THE IMPACT OF THE TECHNICAL EXPERTS

5.5.1. Introduction

5.5.1.1. The assessment of the technical experts' impact is considered under the following headings:-

- (a) the work they have carried out to date and how it has strengthened the Bank's capability to process projects and thus respond effectively to member states' development needs;
- (b) the role of the technical experts in training;
- (c) the ability of the US technical experts to meet the technical assistance needs of the Bank.

5.5.2. The Work Done to Date

- 5.5.2.1. The results of the questionnaires, interviews, and discussions show that all four of the experts in post during the evaluation are having a significant impact on the Bank's operations. They are contributing directly to the strengthening of the Bank's capability to identify, prepare, appraise, monitor and supervise projects, and to develop policy guidelines.
- 5.5.2.2. Since Mr. Peek joined the Bank in December, 1978, he has been on three identification missions with members of the Projects and Operations Departments, to Tanzania, Swaziland and Egypt, and four missions to prepare and/or appraise projects in the agricultural sector for Mozambique, Mauritius, Somalia and Ethiopia. On each occasion he has been accompanied by one or more Bank staff members.
- 5.5.2.3. Between missions he has been heavily involved in the preparation and investigative work required prior to missions, report writing on return, and committee and working group meetings which form part of the project preparation and appraisal process.
- 5.5.2.4. Additional activities include interviewing candidates for positions in the Agricultural Division of the Projects Department, analysis of studies, with proposals for action, and Division and committee meetings. Recently, Mr. Peek has been appointed to the Central Projects Unit because of his skills and experience. This is discussed further below.
- 5.5.2.5. There are no differences between the duties performed by Mr. Peek and those set out in his job description.

- 5.5.2.6. Mr. Carmichael joined the Bank as Sanitary Engineer. Since that time, he has been on three missions, an identification mission to Tanzania (together with Mr. Peek and two Bank staff), an appraisal mission to Kenya for the Thika Water Supply (together with Mr. Erickson and a member of the Bank's staff) and a supervision mission to Lesotho, which sorted out a number of problems concerned with the Maseru water supply project.
- 5.5.2.7. In addition to mission preparation, execution, and follow-up, Mr. Carmichael has been involved in reviewing terms of reference for pre-investment studies, negotiating with consultants, and supervising their work. Recently he has been involved with three studies financed by Regular Grants - Victoria Sewerage in the Seychelles, Groundwater Survey in Mali, and the Mauritania 64 Wells Project. He has also reviewed and commented on various plans and documents submitted to him in respect of projects.
- 5.5.2.8. The work he has done to date has not differed from that set out in the job description, with the exception of the training element, which is discussed below.
- 5.5.2.9. Since Mr. Erickson arrived and started work, he has been sent as the financial analyst on two preparatory missions to Kenya, and four appraisal missions, to Kenya, Zambia, Gambia and Uganda. He has appraised a water supply project (Kenya), a sugar cane production project (Zambia), a sewerage project (Gambia) and a water and sewerage project (Uganda).
- 5.5.2.10. In addition to his project work, Mr. Erickson has been involved in the recruitment of financial staff for the Bank.

- 5.5.2.11. Recently Mr. Erickson has been attached on a full time basis to the Central Projects Unit, along with Mr. Peek.
- 5.5.2.12. The work he has done to date has corresponded directly with what was in the job description, although he has not yet carried out any formal training. This is likely to form part of his work with the Central Projects Unit.
- 5.5.2.13. Since Mr. Steel joined the Bank in October 1979 as Special Studies Coordinator in the Department of Policy Planning and Development, he has been on mission to Cameroon and Mali to evaluate resource-based industrialisation strategies and performance as the basis for a research study he is involved in for the Department. He continued this research in Abidjan, reviewing cocoa processing through the Direction de l'Industrie. He has been doing this study with a member of the Bank's staff.
- 5.5.2.14. Also as part of this research study, Mr. Steel attended two conferences in Paris and London, on "Industrial Processing of Primary Products" and "Foreign Investment and its Impact on Development".
- 5.5.2.15. Recently, he prepared a background paper on development strategies, which was used as the basis for a speech by a Vice President to the West African Economic Association.
- 5.5.2.16. Currently, Mr. Steel is engaged in two internal Bank studies designed to identify ways of improving the Bank's operations. The first is a study of the comparative disbursement rates between the Bank and the Fund (referred to in Chapter 3 above), the second is to project the need for further replenishment of the Fund to increase its lending capacity. He also

assisted in the drafting and editing of the 1979 Annual Report. Currently he is beginning work on studies of the "Implications of the Energy Situation on Bank Policy" and "Appropriate Technology in Rural Development".

5.5.2.17. Mr. Steel has also given a short course on research methodology to his departmental colleagues, and took part in the development banking seminar for staff from member state institutions organised by the Training Centre.

5.5.2.18. Mr. Steel's job description is very general, and so it is somewhat difficult to assess the differences between the work done to date and his job description. Specific points he informed the evaluation of are:-

- (a) his involvement in policy-oriented studies has been in areas other than those in the examples given in the job description;
- (b) another expert is appraising member countries' economic performance and development potentials (item 2 of the job description);
- (c) he is doing less original research than he had expected, but instead he is doing more operationally oriented work, which is of direct benefit to the Bank's operations;
- (d) he is involved in training, and will become more involved in future, although this is omitted from his job description - incorrectly in his view.

5.5.3. The extent to which the work done to date has strengthened the Bank's capability to identify, appraise, monitor and supervise projects, to the benefit of member states' development

5.5.3.1. In each case, the evaluation was able to identify specific examples of how the expert's work has contributed to the achievement of the goal and objective of the Regular Grant project. These

examples have been confirmed by both the experts themselves and the heads of Divisions and Departments. In the following paragraphs, we highlight particular examples from each expert's report.

5.5.3.2. Two of the projects Mr. Peek participated in the appraisal of were financed in 1979 - the Moyariba integrated rural development project in Somalia (FUA 8.0 million investment by the Fund) and the Finchea sugar development study in Ethiopia (UA 5.0 million investment by the Bank). In Mozambique the mission found that the feasibility study prepared by the consultants was not suited to the project area, and thus re-wrote the project, probably eliminating the necessity of another mission.

5.5.3.3. Mr. Peek commented that when on identification missions he has been able to help the country concerned identify projects which offer the greatest and fastest return on investment, or remove bottlenecks in other sectors. This is endorsed by his Division Head.

5.5.3.4. On the other hand, there have been occasions when he has felt the Bank has not always been sufficiently persuasive in identifying projects which meet the real needs of the people. For example, in Tanzania, the development of the new capital at Dodoma appears to have greater priority than the expansion of food production. Mr. Carmichael, who participated in the same identification mission, made the same point to the evaluation, adding that some projects that were ready for appraisal were given lower priority to others where considerable pre-investment work is still required.

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5.5.3.5. Mr. Carmichael was involved in the appraisal of the Thika Water Supply project in Kenya which was placed in the pipeline in August 1979, approved in September and approved by the Board of the ADB in November. The Bank investment is UA 8.0 million. This project is intended to alleviate water shortages, which were disrupting industrial activity in Thika.

5.5.3.6. In addition, several of the studies Mr. Carmichael is involved with, in particular the three funded by the Regular and Special Sahel Grants, are directed towards basic water and health needs of the countries concerned. The Mauritania 64 Wells Study, as noted in Chapter 4, has taken three years to contract. Mr. Carmichael is currently involved in the negotiations with the contractors.

5.5.3.7. At the end of 1979, Mr. Carmichael was involved in a supervision mission to Lesotho to resolve problems with the Maseru Water Supply project. The Fund approved a loan of FUA 5,750,000 in 1977 but by the end of 1979 only FUA 84,036 had been disbursed and the project was at a standstill due to a decision of the executing agency to alter the design and specifications for the work. The mission was able to resolve the difficulties, and it is hoped that the project will proceed more swiftly and successfully in the future.

5.5.3.8. Mr. Erickson has participated in the appraisal of two Bank projects with subsequent investment of UA 11.0 million (Thika Water Supply, Kenya, UA 8.0 million; and a water and sewerage project in Uganda for UA 3.0 million) and two Fund projects with investment of FUA 16.0 million (Zambia sugar cane production and a sewerage project in Gambia, FUA 8.0 million each).

- 5.5.3.9. Mr. Steel's research work is directed towards strengthening the Bank Group's project identification by preparing sectoral analyses, and on the mission to Cameroon and Mali he attempted to identify sectors and studies which might be suitable for appraisal or pre-investment studies. The recent nature of these missions (February 1980) means that specific results are still to come.
- 5.5.3.10. The study of ADF/ADB disbursement rates has already led to proposals for improving reporting of disbursement figures, and it is expected that further proposals for improvement will follow.
- 5.5.3.11. Of particular significance to the development of the Bank's project processing ability is the recent establishment of the Central Projects Unit. Considerable priority is attached to the work of this Unit. The appointment of Mr. Peek and Mr. Erickson to this Unit not only reflects the high regard for their work and abilities accorded by the Head of the Projects Department, but also means that they will be working directly to improve the procedures for and quality of project preparation and appraisal.
- 5.5.4. Training
- 5.5.4.1. The most important emphasis of the training aspect of the experts' work lies in their close working relationship with Bank professional staff on missions and in the preparation of reports. Throughout the evaluation, the point was made many times by the experts, their Heads of Divisions and Departments, their colleagues, and others associated with the technical assistance programme, that this is the most effective way to transfer skills and experience to Bank personnel who lack experience. For example, Mr. Peek emphasised that on mission, an experienced officer can teach an inexperienced member of the team how to extract the maximum amount of information in the shortest possible time.
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5.5.4.2. Mr. Erickson, however, felt that so far he had not been in a position to transfer his technical skills and experience to the other financial analysts in the Bank. This is primarily because there are few opportunities for interchange within the Department, and the teams to appraise projects consist of people in different disciplines.

5.5.4.3. All the persons interviewed felt that the one-to-one counterpart system of technical assistance would not be successful. In the past, the Bank tried it with the UNDP programme, but the experiences were unsatisfactory, with little learning acquired. It is useful to quote the comment of one Head of Division on the subject:

"The word counterpart and the idea are no more operative in the Bank."

5.5.4.4. Typical problems with a counterpart system are:-

- (a) the counterpart chosen does not have sufficient educational background to absorb successfully the technical skills and experience of the "adviser": the counterpart needs additional formal training before being assigned, at considerable cost;
- (b) the counterpart proves unsuitable in some other way, or is unable to develop a satisfactory relationship with the "adviser";
- (c) the "adviser" may be technically skilled, but poor at transferring his skills in the counterpart situation;
- (d) the counterpart may leave after the training is over, with the loss to the organisation of all skills learned.

- 5.5.4.5. The Bank has found that the system where the expert works in a normal operational position, working alongside and with Bank personnel, enables Bank personnel to learn more. We agree entirely with this.
- 5.5.4.6. A further point regarding the counterpart system is that it presupposes that an objective of the technical assistance programme is to replace technical assistants with African personnel. This is not an immediate objective of the Bank, which, while retaining its distinct African character, is developing in certain respects as an international institution. Technical assistance personnel from non-African countries complement the African personnel.
- 5.5.4.7. Mr. Carmichael noted that the technical ability of the engineers in his Division is high, and that it would be inappropriate for them to be assigned as counterparts. His own special skills of new technologies complemented their skills and experience in the African context.
- 5.5.4.8. All the experts have worked closely with Bank personnel, and Mr. Steel provides details in the Summary Review form of how this has provided on-the-job training.
- 5.5.5. Suggestions to improve the effectiveness of the US technical experts
- 5.5.5.1. The evaluation has tried to identify areas where improvements could be made to enable the work of the technical experts to be more effective than it already is in strengthening the Bank's capability to process projects.
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5.5.5.2. Several points have been made by the experts which support the recommendations made in Chapters 3 and 4 for general improvements in the Bank's programming and processing of projects through the cycle.

5.5.5.3. Other suggestions and comments made by the experts are:-

- (a) interdepartmental communication and liaison should be improved so that suggestions for such things as procedural changes affecting other departments can be considered and dealt with more quickly and effectively;
- (b) improvements to the general administrative support services would reduce the time spent on administrative matters;
- (c) more time should be spent, e.g., in Division meetings, taking stock of what has and is being done and what lessons are being learned rather than rushing on to the next task;
- (d) the regular Division meetings should have an agenda with the opportunity to discuss issues as well as the immediate programme of work.

5.5.5.4. In addition, the Heads of Division have noted that where an expert does not have proficiency in French, his effectiveness is reduced as he cannot be sent to Francophone countries.

5.5.5.5. We recommend therefore:-

- (a) that the points made in paragraph 5.5.5.3. are considered by the Bank, and where appropriate action be taken;

- (b) that AID and ADB consider whether a basic proficiency in French should be required of all future US technical experts, what effect this would have on recruitment, and what the implications are for language training before and after taking up posts.

5.6. APPRAISAL OF THE WORK OF TECHNICAL EXPERTS

- 5.6.1. Currently, US technical experts are appraised annually. Three of the current experts have been appraised by the Division and Department Heads. The form of the appraisal is the completion of a short form which allows ranking of the performance of the expert according to technical ability, initiative, quality of work, quantity of work, relationship with others, punctuality, and language proficiency. The form used for technical experts is the one previously used for all Bank staff. When a new form was introduced recently for Bank staff, it was not applied to technical experts.
- 5.6.2. Generally, these appraisal forms are not very informative. Further, the experts have no input to the appraisal; none of the three knew that forms had been completed on them.
- 5.6.3. In the interviews with the experts, all were agreed that much greater use of the appraisal machinery could be made, and that the appraisee should play an active role in the appraisal. This is partly so that he is made aware of any shortcomings in his work perceived by his superiors, but also to enable him to make constructive comments on how his work in the Department might be improved.
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5.6.4. We recommend that the Bank consider increasing the scope of appraisals in the following way:-

- (a) the appraisal should include an interview with the expert, during which he would have the opportunity to record comments on observations made about his performance by his superiors;
- (b) the appraisals should be more specific, referring to particular work tasks and assignments carried out during the year: this could also be expanded to have assignment based appraisals more frequently than annually;
- (c) the appraisal should give the expert the opportunity to put forward suggestions designed to improve his work performance and that of the Department.

5.6.5. If this is done, we consider that the appraisal could be used as a more effective management tool than that at present to improve work performance.

5.7. PROCEDURES FOR RECRUITMENT

5.7.1. Introduction

5.7.1.1. The recruitment procedures currently used are considered under the following headings:-

- (a) the procedures for recruitment;
- (b) information available to the applicant on the post, the Bank and living and working conditions, and that available to the Bank on the applicant;
- (c) orientation arrangements;
- (d) administrative arrangements.

5.7.2. The procedures involved in recruitment

5.7.2.1. The current recruitment procedure for US technical experts may be outlined as follows:-

- (a) candidates are identified and submit applications to the Bank: currently the Bank has an agreement with the Near East Foundation (NEF) to identify and submit bio-data on potential candidates;
- (b) the applicants are screened by the Bank, and those applicants considered of interest to the Bank are invited for interview in Abidjan;
- (c) the applicants called for interview are generally in Abidjan for about five days during which time they have discussions with the Bank and REDSO officials and are given certain information on living and working conditions;
- (d) following the interview, which is normally conducted by a panel, the Bank decides whether or not to make an offer: if it is decided to make an offer, terms and conditions are worked out and submitted to REDSO for approval;
- (e) the offer with the contract is sent to the applicant for signature: there may be negotiation at this stage;
- (f) after accepting the offer and signing the contract, the expert arrives in Abidjan and takes up his appointment.

5.7.2.2. With the recruitment of the four experts considered in detail, there were significant problems with the procedures in one case only, that of Mr. Steel, largely because the above procedures were not followed. His recruitment was exceptional, involving the Harvard Institute for International Development (HIID) and did not follow the above procedure. The main problem in his case was that there was uncertainty in the Bank about the future of the HIID programme, which led to delays in submitting the contract to him.

5.7.2.3. Mr. Peck would prefer a system of recruitment whereby an agent takes responsibility for negotiating terms and making administrative arrangements. The arrangement with the Near East Foundation is only as a contact point for identifying applicants, who then apply to and negotiate directly with the Bank.

5.7.2.4. In the part evaluation prepared in May 1979 by Mr. Gordon, it was noted that the time period between identification of candidates and their arrival at the Bank was decreasing and this seems to be being maintained.

5.7.3. Information available to Applicants

5.7.3.1. An area where there seems to be considerable room for improvement in the overall recruitment process is in the provision of information to applicants. Each expert has set out in the Summary Review form what information was available to him on application, at the interview and subsequently. Only one, Mr. Erickson, felt he was given sufficient information, and he agreed that a booklet consolidating information on living conditions, terms and regulations and so on, would be useful.

5.7.3.2. The absence of information, incorrect information, conflicting information from different sources, particularly relating to living conditions and the detailed terms and conditions of service seem to be major causes of concern to the experts. The following summarises the main areas where improved information is needed, according to the experts:-

- (a) at the time of application, experts would like to have a minimum of an outline job description, and an outline description of the organisation and operations of the Bank Group;

- (b) at the time of interview, the experts said, they would like to have more opportunity to ask questions at the panel interview: although they were not prevented from doing so, they said that they were not specifically asked by the Chairman of the panel if they had any questions;
- (c) while in Abidjan for interview, they would like to have the opportunity to meet and have discussions with other experts and Bank staff in their discipline: again this is possible now, but does not seem to be formally arranged;
- (d) at the time of interview, more detailed information on the work of the Department/Division, terms, allowances and regulations, living conditions, administrative arrangements, should be available;
- (e) there is a definite need for a booklet which explains comprehensively the terms, allowances and conditions, living conditions and costs, and administrative arrangements: in particular, references to US standard regulations without the regulations or a layman's interpretation of them is most unsatisfactory.

5.7.3.3. We recommend that the Bank and REDSO give immediate consideration to these suggestions. In particular, given the concern expressed by three of the experts at the lack of clear information available about terms and conditions, administrative arrangements, and living costs, we recommend that REDSO and ADB prepare some form of booklet as soon as possible.

5.7.4. Information available to the Bank on the Applicants

5.7.4.1. There do not seem to be any requirements from the Bank for more information than that currently included in the Bank's application form.

5.7.5. Orientation arrangements

5.7.5.1. The Training Centre of the Bank now arranges two orientation seminars per year for professionals newly arrived at the Bank. Technical experts are now included in this.

5.7.5.2. Because there are only two a year, several months can pass before a new arrival attends a seminar. It is recommended therefore, that the booklet used for the seminar should be given to the technical experts as soon as they arrive. It is further recommended that a copy of the Administrative Instructions should be given to each new arrival as soon as he joins the Bank - and that he should read them.

5.7.5.3. We were interested to learn of the time spent by a member of Mr. Carmichael's Division explaining how the Bank and the Division worked, and we recommend that Division Heads be encouraged to provide this kind of induction to new arrivals. If possible, new arrivals should also be sent on mission as active observers as soon as possible after arrival to enable them to learn how the Bank operates in the field. This is currently Bank practice.

5.7.6. Administrative arrangements

- 5.7.6.1. Three of the experts referred to the considerable time they spent on administrative arrangements after arrival. The Bank is formally responsible for matters such as assistance in finding housing, clearance and transport of personal effects, but its capacity to act quickly is limited. Consequently, the experts do a great deal themselves to avoid delays. They also have to arrange many things such as motor vehicle insurance themselves.
- 5.7.6.2. Preoccupations of this sort are likely to reduce work effectiveness during the first few months of their contract. Many of the problems could be avoided, or reduced, if the experts were provided with timely information on what they have to do. This should be set out in the recommended handbook.
- 5.7.6.3. We recommend in addition that ADB's capability to assist experts with such matters as locating and leasing housing should be strengthened.

5.8. TERMS AND CONDITIONS OF SERVICE

- 5.8.1. Three of the four experts interviewed expressed considerable concern about their terms and conditions of service, and the fourth considered that the cost of living allowance (COLA) needed revision.
- 5.8.2. It is not intended to go into detail here, the points made by the experts are set out in their Summary Review Forms. Also, it is not intended to judge whether or not the various concerns expressed are valid, as they concern issues of considerable complexity. This sub-section briefly summarises the main areas of concern as expressed by the experts. REDSO is already aware of the issues, and is currently taking steps to resolve them as reasonably as possible, within the constraints of the terms of the contracts signed by the experts, statutory regulations, and US law.
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5.8.3. The main difficulties seem to lie in the following areas:-

- (a) current US tax regulations act as a substantial disincentive to US citizens working abroad, and to get round the problem by increasing gross salary to a sufficient level for the net salary to be attractive would be very costly; the specific result of this is that Mr. Peek may not extend his contract, and Mr. Carmichael has indicated he could only afford to extend for a short period;
- (b) the current COLA regulation does not necessarily follow the increase in the cost of living in Abidjan, being based on the difference between the cost of living in Washington DC and Abidjan; this is considered to have unfair effects according to the experts;
- (c) the per diem rates for settling in, particularly with a family, are considered by the experts to be too low;
- (d) there is no provision for review of salary during the two-year contract, which during a period of high inflation is considered disadvantageous by the experts;
- (e) various "privileges" afforded AID and Embassy personnel are not available to the experts (e.g. use of the "locker", duty free fuel, full mail privileges) but the COLA has not been adjusted to take this into account.

- 5.8.4. Some of the above concerns, for example the last one, stem from either incomplete or unclear information obtained by the experts at the time they were negotiating contracts. Also, in some instances the experts are comparing their situation with that of others where the comparison may not be valid - or where an equally valid comparison with another group of people would suggest the experts are well off.
- 5.8.5. Nonetheless, we consider that the experts' concerns should be considered and reviewed as a matter of priority by REDSO, and that as far as possible reasonable and equitable solution found within statutory possibilities. This is currently being done, and we recommend that it should be completed as soon as possible.

5.9. FUTURE DEVELOPMENT OF US TECHNICAL ASSISTANCE

- 5.9.1. The Bank has made it clear to the evaluation that it would like to see continued expansion of the number of US technical experts along with a general expansion of technical experts in the Bank. The experts themselves have said that additional experts are needed, and could be provided.
- 5.9.2. To some extent, similar sectoral constraints apply to the provision of technical experts as to the preinvestment studies. As with pre-investment studies, we consider that AID should not apply sectoral constraints rigidly. Where the Bank needs particular specialist personnel who are in scarce supply throughout the world, and there is the possibility of suitable US candidates, we recommend that AID should be prepared to consider funding such specialists.

CHAPTER 6 TRAINING6.1. INTRODUCTION

- 6.1.1. The purpose of this chapter is to assess qualitatively the extent to which the funding assistance AID provides to the Bank through the Regular Grant to support the training activities of the Bank contributes to the strengthening of the Bank as a development finance institution responding to the needs of member states.
- 6.1.2. First, the methodology used is described. Secondly, the Bank's training policy and programme is outlined, and how the AID contribution fits into this. Thirdly, the training that has taken place to date with the support of Regular Grant funds is described, and, fourthly, the impact of the training is assessed. Fifthly, the procedures adopted for selection and post evaluation of training are set out and assessed. Sixthly, the possible future role of the AID programme is considered.
- 6.1.3. Conclusions and recommendations are included in each sub-section of the chapter.

6.2. METHODOLOGY6.2.1. Sources of Information

6.2.1.1. The main sources of information used were:-

- (a) written questionnaires completed by the former trainees and their supervisors, followed up where possible by verbal interviews;
- (b) files and documents of the Training Centre on each trainee, including terms of reference for the particular training, progress reports and back-to-office evaluation reports prepared by the former trainees;

- (c) interviews with the personnel of the Training Centre;
- (d) policy and issues papers currently in preparation by the Training Centre.

- 6.2.1.2. The questionnaires were drafted by a sub-committee of the JEC assisted by the consultant. The follow-up interviews were prepared and carried out by members of this sub-committee from the Bank and REDSO.
- 6.2.1.3. Questionnaires were received from all the precis writers, the interpreter and their supervisor and from four of the officers sent on attachment. For the two officers sent on attachment who did not complete the questionnaire, because of other commitments including absence on mission, useful back-to-office reports were available to assist in the assessment.
- 6.2.1.4. Follow up interviews were conducted with two of the precis writers, the interpreter, and their supervisor. Of the six professional staff who went on attachment, two were interviewed, and one Division Chief. The views of the Director of the Projects Department on the value of attachments were also obtained.
- 6.2.1.5. It is worth noting that one result of this evaluation has been that some back-to-office reports which were due have now been completed by the former trainees concerned.
- 6.2.2. Method of Analysis
- 6.2.2.1. As for the pre-investment studies and the technical experts, the major method of analysing the information has been to take the questionnaire results and the documentary information on the trainee and consolidate it in a Summary Form. Copies of these forms, together with blank questionnaire forms, are contained in the Annexes.

6.2.2.2. The Summary Forms for the former trainees contain the following information:-

- (a) Section 1: summary data on the former trainee, the training course/attachment, and the costs involved;
- (b) Section 2: conclusions and recommendations;
- (c) Section 3: a description of the current duties of the former trainee;
- (d) Section 4: the procedures involved in the selection of the trainee, the reasons for his/her selection, and for the particular training course/attachment chosen;
- (e) Section 5: details of the training/attachment, and an assessment of its quality;
- (f) Section 6: an evaluation of the impact of the training on the subsequent work of the former trainee;
- (g) Section 7: a description of the post evaluation of the training;
- (h) Section 8: an outline of any other training the former trainee has received since joining the Bank, and any recommendations for future training of the staff member concerned.

6.2.2.3. Summary Review Forms have not been completed where the information obtained was inadequate, e.g., in the case of Mrs Parker, who left the Bank in 1980, and in the cases of Mr. John and Mr. Chalobah, who were absent on mission or on leave during the period of interviewing. Information from their back to office reports and TOR have been considered.

6.3. TRAINING POLICIES AND PROGRAMME OF THE BANK

- 6.3.1. As described in Chapter 3, prior to February 1978, when the Training Centre was established, the extent of training carried out by the Bank was limited. This was in spite of the recognition by management that an effective training programme for Bank Personnel was essential to the development of the Bank as a successful development finance institution. The Bank also recognised that in order to improve the performance of loan administration and project management on projects financed by the Bank, the Bank would have to be involved in the training of member country personnel responsible for project implementation and loan administration in their own countries.
- 6.3.2. The establishment of the Training Centre in 1978 has meant that the Bank has increased its capability to identify and meet the training needs of the Bank and member countries. The Centre is small, however, consisting of a head with the designation of Director, three professionals, two of whom joined the Centre only a few months ago, an administrative assistant, plus secretarial support. The Centre will need to expand further to meet the demands placed on it.
- 6.3.3. As part of the establishment of the Training Centre, a complete set of Administrative Instructions setting out the functions, organisation, selection criteria, and procedures of the Centre has been drafted. A manual including a list of courses offered, institutions to which personnel should be sent, other relevant courses and job descriptions, as well as the policies, functions and responsibilities of the Centre, is also to be prepared.

6.3.4. Currently the courses held or being planned include the following:-

(a) For Bank Group staff - Internal Courses

- (i) General Orientation to the Bank;
- (ii) Specific Orientation to the work task and Department Division;
- (iii) Operational Activities Seminar;
- (iv) General Project Analysis Course;
- (v) Disbursement Workshop;
- (vi) Procurement Workshop;
- (vii) Project follow-up and Supervision Seminar;
- (viii) Loans Administration Seminar;
- (ix) Basic Financial Analysis Course;
- (x) Basic Economics Course;
- (xi) Basic Management Development Seminar;
- (xii) Translation and Interpretation Courses;
- (xiii) Administrative Skills training;
- (xiv) Personnel Management Courses;
- (xv) Language courses;
- (xvi) Administrative Services courses;

(b) For Bank Group staff - External Attachment

- (i) International Bank for Reconstruction and Development;
- (ii) International Finance Corporation;
- (iii) International Monetary Fund;
- (iv) Asian Development Bank;
- (v) Inter-American Development Bank;
- (vi) Chase Manhattan, New York;
- (vii) Midland Bank, United Kingdom;
- (viii) The European American Banking Corporation;
- (ix) The European Economic Community;
- (x) The United Nations Organisation;

(c) For Bank Group Staff - Overseas Courses

- (i) Economic Development Institute of the World Bank;
- (ii) International Monetary Fund's Training Institute;
- (iii) Bradford Project Planning Centre, United Kingdom;
- (iv) The Irish Management Institute;
- (v) Management Development Institute of India;

(d) For Member Country Personnel - Courses arranged by the Bank

- (i) Rural/Agricultural Development courses;
- (ii) Development Banking courses;
- (iii) Loan Administration courses.

- 6.3.5. This is an ambitious programme and will take time to develop.
- 6.3.6. As far as identifying training needs of Bank staff is concerned, this is generally done at the time of the annual appraisal, and annual budget preparation.
- 6.3.7. Currently AID is the only bilateral agency supporting the Bank's training programme for its own staff, and so far this has mainly been used for financing per diem, travel and miscellaneous expenses for overseas attachments and for books and tuition for the precis writers and interpreter. The size of this assistance to date has not been large: currently \$81,330 has been committed for Bank staff members who have completed their training, and a further \$39,830 has been committed for five professionals to go on attachment in the near future.

- 6.3.8. External assistance from West Germany, EDI/World Bank, the Ford Foundation, U.K. Overseas Development Ministry, UNIDO, Norway and Sweden has been obtained to support the courses arranged by the Bank for personnel from member states.

6.4. DESCRIPTION OF TRAINING SUPPORTED BY REGULAR GRANTS

- 6.4.1. Table 6.1. sets out summary information concerning the Bank member staff who have received training or gone on attachment to other institutions. Full details are set out in the Summary Forms in the Annexes.
- 6.4.2. The first group of trainees, the four precis writers and the interpreter, are the only ones who have attended formal courses. It is understood that this was a special training exercise requested by the President of the Bank as a matter of priority in order to improve the quality of key functions within the Secretariat.
- 6.4.3. Apart from these, six professionals, including two Deputy Directors and one Division Head, went on attachments ranging from five to twenty four weeks to IBRD, Asian Development Bank, Inter-American Development Bank, the IMF and the United Nations. The purpose of these attachments was to allow senior Bank staff to observe in operational conditions the procedures, practices, organisation, and techniques used in development banking institutions, to improve their own individual operational performance, and to assess in what ways the lessons they learned could be applied in the Bank.

Table 6.1. -

Summary of Bank Staff Trained with Regular Grant Support

<u>Name of Trainee</u>	<u>Position Held Prior to Training</u>	<u>Date Joined ADB</u>	<u>Type of Training</u>	<u>Location of Training</u>	<u>Dates</u>	<u>AID Contributions \$</u>
Y.W. Dehen	Bilingual Secretary	1974	Precis-writing	Carnegie-Mellon University	8/77-5/78	
E.A.A. Parker	Secretary to the President	1970	Precis-writing	Carnegie-Mellon University	8/77-5/78	
S.T. Demba	Bilingual Secretary	1970	Precis-writing	Carnegie-Mellon University	8/77-5/78	54,000
E. Williams-Oryedum	Bilingual Secretary	1974	Precis-writing	Carnegie-Mellon University	8/77-5/78	
A.P. Ma	Interpreter	1972	Interpretation Translation	Georgetown University	8/77-6/78	
A. Jarik	Loan Officer.	1976	Attachment, Programme Department	IBRD	4/79-10/79 (24 weeks)	7,860
W. Bellame	Deputy Director, Admin & Personnel	1977	Attachment, Administration	IBRD INF	7/79-8/79 (9 weeks)	3,660
I.B.C. Jaha	Deputy Director, Projects	1967	Attachment, Projects	Asian Devt Bank	6/79-7/79 (5 weeks)	4,070
W.A. Chalebah	Head of Division, Loans, Administration Finance	1973	Attachment, Finance	Asian Devt Bank	8/79-9/79 (5 weeks)	4,070
S.A. Llamidi	Senior Finance Officer, Loans Administration	1969	Attachment	IBRD, I-ADB, UN	7/79-9/79 (10 weeks)	4,010
J.C. Lassy	Personnel Officer	1977	Attachment Personnel and Recruitment	UN	6/79-8/79 (8 weeks)	3,660

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6.5. QUALITY AND SUITABILITY OF THE TRAINING RECEIVED

6.5.1. In assessing this, we have considered the courses for the precis writers/interpreter and the attachments separately.

6.5.2. Precis Writers and Interpreters

6.5.2.1. It appears from the interviews and questionnaires of the former trainees and their supervisor that there were considerable problems with the precis writers' course, which considerably reduced its effectiveness.

6.5.2.2. In the first place, it seems that the subject of the course was changed at the last minute. Carnegie-Mellon understood that the course was to be for translation, so the University had to change quickly the programme they had prepared. Carnegie-Mellon had not undertaken courses in precis writing before.

6.5.2.3. The result of this was that the course was not well designed for the needs of the trainees, nor of the Bank. The subjects covered were translation, technical writing, and precis writing, but precis writing was a secondary rather than a primary subject. The subject matter used was not specifically directed to development banking. The former trainees commented that they felt the course should have covered more subjects, for example, note taking, economics, finance and banking.

6.5.2.4. Secondly, it seems that there were changes of professors during the course, which affected the continuity and quality of the training.

6.5.2.5. Thirdly, there was insufficient practical work, for example, attachment to international institutions to complement the course work done.

- 6.5.2.6. Fourthly, the educational level of the precis writers was insufficiently high for them to benefit fully from a university course of this nature.
- 6.5.2.7. Fifthly, most of the courses were in English. One former trainee expressed the view that it was not sensible to send a precis writer with French as his first language to an American university to develop skills as a French precis writer.
- 6.5.2.8. The supervisor of the precis writers felt that the above problems severely reduced the effectiveness of the course, and as a result the precis writers returned insufficiently qualified for the posts it was intended that they should fill. This was one of the reasons why their planned promotion was delayed.
- 6.5.2.9. Nonetheless, two of the former trainees felt that the course had been useful and helped them in their subsequent work.
- 6.5.2.10. In summary, it appears that the problems with this course were the result of inadequate planning and changing the course at the last minute from one of translation to one of precis writing. ADB was not involved in the course planning and the establishment of the particular training needs. We recommend, therefore, that:-
- (a) ADB should ensure that it is fully aware of the contents of courses before Bank staff are sent off;
 - (b) where possible, ADB should have an input to course planning by identifying its specific needs to the institution concerned.
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6.5.2.11. As far as the training of the interpreter, Mr. Aka, is concerned, at Georgetown University, there do not seem to have been any problems such as those experienced above with the precis writers. Mr. Aka was satisfied with the content and duration of the course. It covered simultaneous interpretation, note taking, on-site translation, parliamentary procedure, and included several practice sessions. He strongly recommended that other Bank interpreters should be sent on the same course if their standard is good.

6.5.3. Attachments

6.5.3.1. All the Bank staff who went on attachment during 1979 have expressed considerable satisfaction at the value of the experience, both to their own individual performance and that of the Bank as a whole. All are agreed that attachment for the relatively short periods that most of them went on can assist them greatly in observing and learning alternative procedures and systems. Their horizons are also widened by having the opportunity to work in another development finance institution.

6.5.3.2. Mr. Lassy, Personnel Officer, who was attached to the United Nations, commented that he felt it might be more useful to send people to medium-sized institutions rather than such a large institution as the UN. In personnel and administrative matters the issues and problems are on a totally different scale to those in the ADB. Nonetheless, he was very positive about his experience at the UN, and felt that he was able to apply it to the Bank's situation. He considered that eight weeks was not really long enough, he would have preferred the duration of the attachment to be determined after the attachment programme content had been agreed.

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6.6. IMPACT OF THE TRAINING

6.6.1. In this subsection we consider how the training received, and the information and lessons learned by the former trainees has subsequently strengthened the Bank as a development banking institution. Again, the impact of the precis writers' and interpreter training is considered separately from that of the professional attachments.

6.6.2. Precis Writers and Interpreter

6.6.2.1. As a result of the inadequacy of the precis-writers' course, its impact has been less than had been hoped. When the former trainees returned from the course, it was found that they were not fully prepared for work as precis writers, and it was necessary to give them considerable on-the-job training before their performance was considered satisfactory. This was one of the main reasons why the promotion that they had been led to expect would follow their training was postponed for more than a year.

6.6.2.2. The lack of promotion affected their morale, and indeed two of the former trainees said that they had almost resigned from the Bank as a result. Matters had improved since they were promoted at the beginning of 1980.

6.6.2.3. The trainees themselves felt that they were able to contribute more to the important precis writing function of the bank as a result of the course, and one of them, Mrs Demba, has been given a supervisory role because of her higher level of education and performance.

6.6.2.4. As far as Mr. Aka, the interpreter, is concerned, the training he received appears to have been an important stage in his progression towards the top of his field. Given that high quality interpretation in the Bank is a key requirement, his contribution to the Bank's institutional development can be said to be significant. His supervisor considers that he has complete mastery of the skills he learned, and can use them unsupervised with good results.

6.6.3. Attachments

- 6.6.3.1. It proved difficult to obtain specific examples of how the attachments had strengthened the Bank as a development institution in general terms and more particularly in the field of project identification, preparation, appraisal and supervision. On the one hand the attachments occurred relatively recently, on the other hand it is somewhat unreasonable to give credit for particular actions solely to lessons learned from short study attachments.
- 6.6.3.2. It is necessary, therefore, to rely on the views and comments of the personnel who were attached, and their superiors, and to refer to the back-to-office reports produced.
- 6.6.3.3. On this basis, we are able to conclude that the impact of the study attachment on the individuals concerned has been considerable, and they have learned a great deal from their experiences. The back-to-office reports refer without exception to the rich experience of being exposed to development practices in other institutions, and all stated in their questionnaires they they use techniques and methods learned in their daily work.

- 6.6.3.4. In some cases particular procedures and practices are not suited to the Bank's operations, but observing practices in other institutions has enabled the person attached to consider Bank policies, procedures and practices critically.
- 6.6.3.5. Mr. Jarik, Loan Officer in the Operations Department, who was attached to IBRD for 24 weeks, commented that he felt more confident in his work and was able to process and supervise loans more effectively than in the past.
- 6.6.3.6. As far as the impact on the Bank's overall performance is concerned, we consider that the study attachments should provide a major source of information and ideas to the Bank on how to improve operational procedures. The back-to-office reports, and post attachment evaluations become, therefore, extremely important if the lessons and ideas learned are to be taken full advantage of.
- 6.6.3.7. For example, after Mr. John's five week attachment to the Asian Development Bank, he prepared a twenty-page memorandum detailing his experiences and what he considered was of direct relevance to improving the Bank's procedures, operations and organization.
- 6.6.3.8. We recommend, therefore, that the production of back-to-office reports and follow-up action should be given high priority for professional staff returning from study attachment.

6.7. PROCEDURES FOR POST EVALUATION OF TRAINING AND ATTACHMENT

- 6.7.1. The procedures that currently exist for the post evaluation of training and attachment consist of the following:

- (a) regular progress reports during the course of the training or attachment;
- (b) the back-to-office report, which is supposed to set out in detail what has been learned and any conclusions and recommendations;
- (c) post-evaluation seminars, at which the trainees or persons attached discuss with their professional colleagues and the Training Centre the information and skills they have obtained while training, and any conclusions and recommendations they have for the Bank.

- 6.7.2. With regard to the precis writers, there was little formal post evaluation and the former trainees did not have the opportunity to discuss their experiences systematically with their supervisors.
- 6.7.3. The procedure set out above has been followed to some extent with the officers who have returned from attachment, although it is understood that back-to-office reports are sometimes not presented promptly. Indeed in the cases covered by this evaluation, some reports were produced as a result of the requests for information made by the evaluation. Also, in the case of Mr. Lassy, the planned post evaluation seminar did not take place.
- 6.7.4. We consider that the post evaluation procedure set out in paragraph 6.7.1. is sound and could be used to greater benefit if followed thoroughly in all cases. Further, the results of these evaluations should be used not only for improving the design of attachment programmes, but also for improving Bank policies, procedures and internal operations.

6.7.5. We recommend, therefore, that:-

- (a) the post evaluation procedure for Bank personnel returning from courses and attachment should be followed in all cases;
- (b) senior management and their immediate supervisors should be involved in the post evaluation process.

6.8. PROCEDURES FOR SELECTION AND ADMINISTRATIVE ARRANGEMENTS

6.8.1. The selection of the precis writers and the interpreter for their courses occurred before the establishment of the Training Centre. A circular was sent by Personnel to all the bilingual secretaries, who then applied. There were so many applications that Personnel had to screen them and limit the written test that was prepared to those who had spent a number of years at the Bank. Those who took the test were those most interested in becoming precis writers.

6.8.2. The successful applicants were not given any information about the training curriculum, nor about life in the USA before leaving for the course. All considered that this was a handicap, as they were not prepared for living and working conditions abroad. In particular the following information would have been useful:-

- (a) course curricula;
- (b) living costs;
- (c) living conditions, environment, perhaps through the aid of films about America and the city they were placed in;

- 6.8.3. There were two administrative problems the trainees faced, concerning the per diem allowance available and the arrangements for accommodation. There appears to have been some confusion about who was responsible for paying the per diem, and its level, which was inadequate. No accommodation was provided to the students, who had to find hotel accommodation at considerable expense. They were unable to rent apartments. There were also difficulties with transportation.
- 6.8.4. It should be emphasised that this course was somewhat exceptional in that it was arranged with little planning. Nonetheless, the problems regarding per diem and accommodation should be settled well in advance.
- 6.8.5. The selection of individuals for study attachment followed the Bank's current procedure of consultation between the Departments and the Training Centre, whereby specific training needs of the Bank and the individual are identified. Their selection by the Centre and their Department was discussed with them, (although one felt this could have been more consultative than directive) and terms of reference setting out the purpose and content of the attachment provided in advance. The officers concerned were, therefore, aware of what their attachment would entail. Generally, they considered the information available was adequate, although again, like the precis writers, they would have preferred more information about what to expect in the US in the way of living conditions.
- 6.8.6. There was also a certain amount of pre-attachment preparation in the form of administrative arrangements, and review of the reports prepared by previous personnel attached to the same institution, where available.
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6.8.7. We recommend, therefore, that additional information on living costs and conditions in the countries to where personnel are to be sent should be provided. In particular, we recommend that the Training Centre and AID liaise to provide any films or information available at the US International Communications Agency.

6.9. FUTURE SCOPE OF AID SUPPORT TO THE TRAINING CENTRE

6.9.1. Although AID recognises the importance of the training activities of the Bank, the assistance provided so far has been on a limited scale. This is at least partly because the Training Centre has not presented a comprehensive proposal to AID. The 1977 Project Paper included provision for support to internal courses, but so far nothing has been done in this area.

6.9.2. We consider that the training part of the Regular Grant project could be substantially expanded, and recommend, therefore, that when the next Project Paper for the Regular Grant is prepared, REDSO and ADB should discuss in what way this could be done.

6.9.3. Specific suggestions that should be considered are:-

- (a) the present AID support should be sustained and increased;
- (b) funding adult educators and specialists in particular areas on a short term basis to lead particular courses or seminars;
- (c) provision of teaching aids, such as books and films dealing with project appraisal and management, and economic development;
- (d) supply of teaching equipment, such as VTR, which would be used in seminars and workshops to develop, for example, meeting skills, negotiating techniques and management skills;
- (e) financial support for courses for personnel from member state institutions.

CHAPTER 7 IMPROVEMENT OF MANAGEMENT DATA SYSTEM7.1. INTRODUCTION

- 7.1.1. The purpose of this chapter is to outline the progress to date of the Bank in developing its management data system, and to summarise the likely future steps in its development. As this component of the Regular Grant Project is still in its first, planning stage, it has not been possible to carry out an evaluation of its impacts. Some general indications are given, however, of how the system, when introduced, may strengthen the Bank's capability to process projects efficiently and respond more effectively to member country development needs.
- 7.1.2. Information for this chapter was obtained from interviews with the consultant working on the Study, and from Bank personnel associated with the work of the consultant.
- 7.1.3. First, progress to date is reviewed, with reasons for the delay over the programme contained in the 1977 Project Paper. Secondly, an indication is given of the type of programme and system that is likely to be proposed and the possible timescale. It must be stressed that this first stage study is not yet complete, and it would be incorrect of this evaluation to prejudge the outcome.

7.2. PROGRESS TO DATE

- 7.2.1. The 1977 Project Paper proposed a timetable which anticipated the first stage of identifying the Bank's needs in FY 1978, with systems analysis and development, purchase of hardware, training, systems testing and implementation during FY's 1979 and 1980.
- 7.2.2. The timetable proved to be unsuitable for several reasons. First, during 1977 and 1978 the Bank Group was involved in major reviews of procedures, referred to above in Chapter 3. These were the First Review Committee of
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the ADF, and the Price Waterhouse Review of Disbursement Procedures of the ADF, both of which impacted on the Bank Group as a whole. The latter study was then followed by the preparation of the Manual of Operating Procedures by Price Waterhouse covering all aspects of the Bank's procedures. It was decided by the Bank, therefore, that these activities should be completed before proceeding with the examination of the introduction of electronic data processing (EDP) - based systems for data management.

- 7.2.3. Secondly, the Bank underwent a major re-organisation of its operational and administrative structure in 1977. This is referred to in the Project Paper. It was probably somewhat unrealistic to expect the management data project to start within a year of this re-organisation. A further point is that the Bank's administration was preoccupied with moving into the new premises in Abidjan during 1978.
- 7.2.4. Thirdly, and more recently, there was a short delay when the cost proposal for the first stage study exceeded the available funds.
- 7.2.5. The consultants selected to carry out the first stage of the project, Coopers & Lybrand, were appointed in December 1979, and started work in January 1980. Their terms of reference are:-

"The consultant will be entrusted with the task of appraising the opportunity to set up an electronic data processing (EDP) facility in the ADB. To this end, he will carry out a set of activities which will include:-

- (a) a review of the Bank Group activities, expected expansion and growth;
- (b) determination of the Bank Group needs and requirements in terms of data processing and information reporting;
- (c) identification of the systems that could and should be computerised;

- (d) setting out of priorities to the development of each system to be computerised;
- (e) preparation of outline system for each system to be computerised;
- (f) determination of estimated volumes for processing each system;
- (g) determination of the most appropriate methods of processing each system;
- (h) determination of the broad type of computer facilities that can best process these systems;
- (i) a preliminary estimate of likely costs and benefits;
- (j) an appraisal of the opportunity to set up an Electronic Data Processing Unit for the whole Bank Group versus Departmental facilities;
- (k) determination of EDP staff that will be required;
- (l) preparation of a timetable for the introduction of the proposed electronic data processing.

7.2.6. ADB established an ad hoc Committee comprising senior representatives of each Department, chaired by the Adviser to the President, to assist the work of the consultant.

7.2.7. The work stages of the consultant can be divided into three parts. First, an Initial Report was prepared, describing the operations of Bank Group, identifying what the data management needs were in each area. At this stage the consultants were requested to make interim suggestions on systems improvement.

7.2.8. The second stage, overlapping with the first, was for the preparation of a Master Plan of the systems and sub-systems in each area, considering in detail alternative solutions to meet these objectives with recommendations of particular solutions to the Bank.

7.2.9. The third stage, which is currently in preparation, is the drafting of the Final Report taking into account all of the comments on the Bank on the Master Plan.

- 7.3.10. The current schedule is that the consultants will present the draft Final Report at the end of May 1980, after which it will be reviewed and finalised for approval by the Board of the Bank.

7.3. AN INDICATIVE OUTLINE OF WHAT IS LIKELY TO BE PROPOSED

- 7.3.1. The Initial Report divided the Bank's information needs into Information Units, which have been grouped into three Information Fields, as follows:-

<u>Information Field</u>	<u>Information Unit</u>
A. Economic Studies	: Economic Studies
B. Management Information:	Projects, financial analysis and administration Loans Treasury - Borrowing - Investments - Capital Subscriptions Personnel Payroll Budget Registry Accounts Statistics
C. Secretarial Functions	: Secretariat

- 7.3.2. The Initial Report established that the Bank needs to develop EDP-based systems. The main reasons for this are:-

- the volume of information handled for each activity;
- centralisation of data, e.g. for projects to facilitate data reference;
- control of information: for example, the same information currently held in different places sometimes conflicts, as was recently the case with the numbers of people employed in the Bank held by the Payroll Section and by the Personnel Department.

7.3.3. Taking the three fields, there are three possible options each for processing points, namely:-

- (a) centralised processing within the Bank;
- (b) decentralised processing in each "Field";
- (c) use of a bureau.

By combining these options with the Fields, there are nine basic combinations. The Study has evaluated nine basic options in depth.

7.3.4. For each Information Unit, the Study has defined the functional objectives for an EDP-based system. Then, for each of the nine basic options, the following analysis has been developed:-

- (a) presentation of the hardware configuration;
- (b) investment costs for hardware and software;
- (c) operating costs to 1985;
- (d) a cost-benefit analysis comparing the costs of an EDP-based system with the cost of doing the same thing manually;
- (e) an implementation schedule.

7.3.5. Out of these options, which have been presented in the Master Plan, it is possible, by a system of weighted criteria, to select the most favourable option. Currently, it seems that this would be to develop the systems for Information Fields A, B, and C, using decentralised specialist processing points for each, with B (Management Information) and C (Secretarial Functions) initially, followed by A (Economic Studies) once the first two have reached the implementation stage. This has not yet, however, been finally decided.

7.3.6. The time-table for this option would be as follows:-

<u>Action Stage</u>	<u>Timetable</u>
(a) Detailed functional analysis of the Management Information and Secretarial Functions Fields	Sept. 1980 - Jan. 1981
(b) Software development for the above (varying according to Information Unit)	Feb. 1981 - Nov. 1982
(c) Hardware selection	Feb. 1981 - May 1981
(d) Economic Studies (Information Field A)	Sept. 1982 - June 1984

7.3.7. Estimated costs for this programme and timetable are still being prepared, but software costs are likely to be in the region of £A 1.5 million and hardware costs about £A 600,000. Annual operating costs are likely to peak at close to £A 1.0 million per annum between 1982 and 1984, declining to something in the region of £A 0.5 million per annum once the financing costs of the hardware have been met, towards the end of the 1980's.

7.3.8. Again, it is stressed that the above is indicative only, and is not intended to prejudge the consultant's final proposals.

7.3.9. In terms of the potential impact of the development of the system, it should be noted that one of the difficulties this evaluation has faced has been the lack of comprehensive centralised information on project progress through the cycle from identification to completion. The proposed system would provide such a centralised source, which would be of considerable value to project and loan management.

7.4. IMPLICATION OF THE TIMETABLE FOR FUTURE AID FUNDING

- 7.4.1. The implication of the timing of the presentation and consideration of the Final Report of Phase I is that AID financing for Phase II, the development of systems for Information Fields B and C, will not be required until FY 1981. The funds in the Regular Grant programme originally planned for commitment in FY 1980 have therefore been re-allocated to pre-investment studies and an equal amount will be transferred to the EDP project from the planned allocation for pre-investment studies in FY 1981. This was described in Chapter 3.
- 7.4.2. The total cost of the proposed development is considerably in excess of the \$585,000 included in the Regular Grant programme for FY 1978 - FY 1982. It is recommended, therefore, that ADB and AID start discussions as soon as feasible after the consideration of the Final Report of Phase I on the revised financing of subsequent phases.

GLOSSARY

Conversion Rates

<u>Period</u>	<u>African Development Fund</u>
1967 - 1971	UA 1 = US \$ 1
1972	UA 1 = US \$ 1.08571
1973 - 1976	UA 1 = US \$ 1.20635
1977	UA 1 = US \$ 1.21471
1978	UA 1 = US \$ 1.30279
1979	UA 1 = US \$ 1.31775

African Development Fund

1974 - 1977	FUA 1 = US \$ 1.11111
1978	FUA 1 = US \$ 1.199937
1979	FUA 1 = US \$ 1.213716

Nigeria Trust Fund

Same as ADB

Abbreviations Used

ADB	- African Development Bank
ADF	- African Development Fund
AID	- US Agency for International Development
CPU	- Central Project Unit
CILSS	- Comité Inter-Etat pour la Lutte contre la Sécheresse Sahélienne
EDF	- European Development Fund
EDP	- Electronic Data Processing
HIID	- Harvard Institute for International Development
IBRD	- International Bank for Reconstruction and Development
IMF	- International Monetary Fund

- NTF - Nigeria Trust Fund
REDSO/WA - Regional Economic Development Services Office
West Africa
UA - Unit of Account (ADB and NTF)
FUA - Fund Unit of Account.

ADB Regional Classification

West Africa

Benin, Cape Verde, Gambia, Ghana, Guinea, Guinea Bissau,
Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone,
Togo, Upper Volta (15).

Central Africa

Burundi, Cameroon, Central African Republic, Chad, Congo,
Equatorial Guinea, Gabon, Rwanda, Sao Tome and Principe, Zaire (10).

East Africa

Botswana, Comoro, Djibouti, Ethiopia, Kenya, Lesotho, Madagascar,
Malawi, Mauritius, Mozambique, Seychelles, Somalia, Swaziland,
Zanzania, Uganda, Zambia. (16)

North Africa

Algeria, Egypt, Libya, Mauritania, Morocco, Sudan, Tunisia (7).

SUMMARY REPORT OF JOINT EVALUATION COMMITTEE
MISSION TO UPPER VOLTA, APRIL 14 - 16, 1980

1. Project : Earth Dams at Dablo, Tamossogo, Thiou and Koungny, and associated downstream facilities.

2. Purpose of Mission

- 2.1. To discuss with the appropriate authorities the study carried out by TAMS of downstream facilities for these four dams ;
- 2.2. To obtain a recent report on the status of implementation of the projects ;
- 2.3. To visit the dam sites where there has been construction work carried out ;
- 2.4. To obtain any information on the socio-economic impact of the projects.

3. Composition of the Mission

- 3.1. The Mission was composed of Mr. C. Amegavie, Co-ordination Unit, ADB, and Mr. J. Speed, consultant to the Joint Evaluation Committee (JEC).

4. Programme of the Mission

4.1. The following was the programme of the Mission :

4.1.1. 14 April : Arrival at Ouagadougou, 12.00 hours, where the Mission was met by Mr. M. Ouattara, Directeur du Bureau des Etudes, Office National des Barrages et de l'Irrigation (ONBI).

15.30-16.00 : Meeting with Mr. Tahita, Directeur Général du Plan.

17.30-17.45 : Preliminary meeting with Mr. Coulibaly, Directeur Général de l'ONBI.

4.1.2. 15 April : 05.30-12.30 : Visit to Tamossogo Dam and Kaya with Mr. P. Lingani, Technicien Supérieur in Section Aménagement et Irrigation, ONBI.

15.30-17.00 : Meeting with Mr. Coulibaly and Mr. Lingani.

4.1.3. 16 April : 08.30-09.30 : Meeting with Mr. Ouattara.

16.00 : Depart for Dakar.

4.2. Of the four dams, two are complete (Dablo and Tamossogo) and two have just received ADF financing (Thiou and Koungny). There was sufficient time to visit Tamossogo only on the 15th. As the dams and associated facilities at Dablo and Tamossogo are essentially the same, the visit to Tamossogo was sufficient.

5. Findings of the Mission

5.1. The Status of the Project

5.1.1. Dablo and Tamossogo

5.1.1.1. Both of these dams are complete, together with associated irrigation structures and livestock and human watering facilities downstream. Completion dates are as follows :-

- a) Dablo : Dam structure provisionally handed over January 1978. Downstream facilities completed November 1979.
- b) Tamossogo : Dam structure provisionally handed over January 1978. Downstream facilities completed January 1980.

5.1.1.2. At both dams the downstream facilities are not yet in use. At Dablo there is little water in the dam because of inadequate rainfall last year. There is sufficient water for livestock and human use, but not for irrigation. At Tamossogo, the Mission saw that the dam was fairly full, the water level being about 2 feet below the top of the spillway, with sufficient water for irrigation. The water is not being used for this yet as the villagers are receiving preliminary training from the local extension agent. This is discussed in more detail below.

5.1.2. Thiou and Koungny

5.1.2.1. These two projects have not yet been started. The conditions of the loan precedent to initial disbursement have not yet been fulfilled.

5.1.2.2. The Mission was given copies of the tender documents for the construction of these two dams to take back informally to ADB. In February ADB had provided a target date of the end of March for submission of these documents to ADB.

5.1.2.3. The programme for these dams envisages construction starting in September-October 1980.

5.2. The Study by TAMS

5.2.1. The Mission learned from the officials at ONBI that there are several areas in which, from their point of view, the study carried out by TAMS for the development of downstream irrigation and watering facilities is not satisfactory.

5.2.2. First, because ONBI was very busy with other duties, in particular with EDF and World Bank matters, it was not able to follow and supervise adequately the work of TAMS. This has meant that ONBI is not in agreement with some of TAMS' recommendations.

5.2.3. Secondly, there was, according to ONBI, inadequate opportunity

to comment on the Draft Final Report before it was presented in its final form.

5.2.4. As far as the recommended system for irrigation and the design of the facilities are concerned, ONBI has a number of significant reservations, which are set out below.

5.2.4.1. The Irrigation System

ONBI informed the Mission that it had been explained to TAMS before they started work that the system of irrigation familiar to Upper Volta is that of secondary and tertiary canals distributing the water from the primary canal to the plots of land within the perimeter. Notwithstanding this, TAMS designed a system of furrows leading away from the primary canal, fed by siphons. According to ONBI, this system has the following disadvantages :-

- a) the system is unfamiliar to farmers as well as to ONBI ;
- b) because of high rates of evaporation and infiltration losses, ONBI believes that it will only be possible to irrigate up to 60 metres away from the main channel, and not the 400 metres that TAMS claim. 400 metres of irrigation could be achieved with the secondary and tertiary canals system ;
- c) because of the lack of familiarity in the use of siphons, greater water losses are to be expected than with the alternative system.

Following the study, ONBI proposed to ADB to substitute secondary canals for the siphons and furrows, but it was decided that it would be too costly to change the design. The furrow system will be tried, therefore, and if it does not work satisfactorily, alternative solutions will have to be tried. It should be noted that the extension agent at Tamossogo said that he wanted secondary canals to be built and that he was unfamiliar with the siphon system. As he is responsible for technical advice to the farmers, it seems there will be difficulties in implementing the TAMS proposals.

5.2.4.2. The Pumping System for the Watering Facilities at Tamossogo and Dablo

The irrigation system and the watering facilities for livestock and people downstream of the dam are not independent. When there is sufficient water in the dam (normally estimated to be July to January), the two systems are fed by gravity from an outlet pipe in the dam wall. When the water level in the dam falls below the level of the outlet pipe during the dry season, or when the outlet pipe is closed because the

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irrigation facilities are not being used, as was the case when the Mission visited Tamossogo, water has to be pumped out of the dam into watering facilities. This still uses gravity for the actual flow into the livestock watering troughs and the washing basins. According to ONBI, the small mobile pumping system proposed by TAMS is inadequate, as insufficient pressure is obtained. ONBI propose, therefore, to erect elevated steel tanks into which water will be pumped by a fixed pump. This will provide a sufficient head of water for the supply into the troughs and basins. Individual herdsman will be able to water their livestock by use of the taps, without having to pump directly. Although the Mission did not obtain estimates of the cost of this solution, ONBI did not consider it would be expensive.

5.2.4.3. Crossing Points for Donkey Carts, etc.

TAMS did not provide sufficient crossing points over the main irrigation canal either at Dablo or Tamossogo. ONBI has increased the number to 5 at Tamossogo and 6 at Dablo.

5.2.4.4. Cross Drainage under the Main Canal

Again, TAMS did not provide for sufficient cross drainage. At Tamossogo, ONBI has added four culverts, including one at a significant thalweg which does not appear on the topographical map prepared by TAMS' subcontractor.

5.2.4.5. Sacred Areas

Although TAMS carried out a socio-economic assessment of the area, at Tamossogo they routed the main canal across certain places which have a sacred significance for the villagers. ONBI has re-routed the canal.

5.2.4.6. Warehouse for Storage of Inputs and Produce for Market

TAMS did not include this facility in the design. Both ONBI and ADB felt it was necessary and so an 80 square metre warehouse has been constructed for use by the co-operative that will be formed. (See paragraph 5.6.2. below)

5.3. Current Use of the Dams

5.3.1. From the visit to Tamossogo, the Mission observed that the dam is currently being used for the following purposes, with water being used directly from the lake :-

- a) livestock watering ;
- b) human watering and washing ;
- c) fishing ;
- d) water supply for the construction of the feeder road between Kaya and Tamossogo.

- 5.3.2. The Mission was informed that people and livestock came from 10-15 km to water at the dam. Also, livestock following the transhumance route come via the dam. Dablo and Tamossogo dams provide important links in a chain of watering points along the route of transhumance. This is one of the reasons for the choice of Dablo and Tamossogo as suitable sites.
- 5.3.3. In terms of the numbers of people and livestock using the dam, the Mission was unable to obtain any information later than that used in the TAMS study.
- 5.3.4. The people have dug some wells just below the dam wall and are taking water from them. Mr. Lingani of ONBI had proposed that a proper concrete well be constructed, which would not collapse as the existing wells keep doing. The wells provide a cleaner source of water than taking it straight from the lake. However, it has been decided for the time being not to construct a concrete well as watering facilities are already provided in the project by the 6 concrete basins. The downstream facilities already provide watering facilities for the villagers, when they are supplied with water.

5.4. Sociological Aspects of the Facilities provided for Livestock and Human Watering

- 5.4.1. It seems that there is a strong likelihood that the 4 concrete livestock watering troughs and the 6 concrete washing basins and taps will remain unused or under-used once they are supplied with water. This is because the people prefer to wash directly in the lake and the livestock cannot be prevented from watering directly in the lake either. Indeed, Mr. Lingani had proposed to ADB that for these reasons, the facilities were redundant and should not be constructed but this was not agreed.
- 5.4.2. It appears that there is no organised programme of education to encourage people to use these facilities. As far as livestock watering is concerned, there is no intention to fence the lake, which could not be justified economically. (There seems to be no awareness among the people using the dams at Tamossogo and Dablo that watering livestock and washing in the dam pollutes the water for human consumption.)
- 5.4.3. The situation is made more complex by the fact that many users of the dam water are following the transhumance route and are from outside the village, indeed from outside Upper Volta, (e.g. from Mali, etc.) Even if the villagers are educated sufficiently to use the facilities, the migrants will not be.

5.5. Protection of the Dam

- 5.5.1. Currently, with livestock watering directly in the dam, there is the danger that they will contribute to its silting up by trampling earth into the water. As the dam at Tamossogo is shallow (the Mission saw two boys fishing at thigh level close to the dam wall), there is real concern.

5.5.2. Secondly, the dam wall is not protected and livestock were seen crossing the wall directly. This may eventually damage the structure. It is not intended to fence the dam.

5.5.3. The ONBI officials did not seem particularly concerned that these are significant matters. Preventative measures such as the use of fencing were considered by them to be too expensive and unnecessary.

5.6. Preparations for the Operation of the Irrigation Facilities - Tamossogo

5.6.1. Although the works were completed in January, preparations have only just begun at Tamossogo for the exploitation of the facilities. A month ago, the Organisation Régionale de Développement (ORD) of Kaya posted an extension agent (and an assistant) with full-time responsibility for the irrigated perimeter to the village. He has begun to organise and prepare the villagers for irrigated farming. He has received four months training in irrigation farming on top of his basic training in agricultural extension.

5.6.2. The required local management committee consisting of representatives of the ORD, ONBI, other relevant government agencies, the local chief and representatives of the farmers has been formed but has not yet been active. It will shortly divide up the irrigated area into plots for the villagers, about 1/2 ha each. A production and marketing co-operative will also be formed.

5.6.3. The officials of ONBI agreed with the mission that this organisational activity is occurring somewhat late, and that it would be sensible to begin the farmers' preparation while construction was in progress so that irrigation could start with the minimum of delay. Although the Mission did not have the opportunity to confirm this with the ORD at Kaya, as the Directeur and his colleagues were all absent at the time of its visit, it seems that the ORD at Kaya was busy organising another 150 ha of irrigation in its area at the same time.

5.6.4. The extension agent and his assistant (Messrs. E. Ouadenga and Koukimonimoni) informed the Mission that the furrow and siphon system of irrigation is not suitable for growing rice. This is the crop all the villagers want as it is both a good cash crop and a superior cereal for local consumption than sorghum and millet. This desire of the villagers is at variance with TAMS' recommendations that sorghum and millet should be grown for local consumption, plus cotton as a cash crop. Problems, therefore, appear likely if the farmers cannot be persuaded to grow crops other than rice, as the system has not been designed for riziculture.

5.7. Dam Maintenance

5.7.1. ONBI is responsible for the maintenance of the dams and downstream facilities. It exercises this responsibility through

maintenance brigades which visit the dams to inspect maintenance requirements and carry out necessary work. So far Dablo and Tamossogo have not required significant maintenance because they are new.

5.8. Studies for Irrigation Facilities at Other Dams

- 5.8.1. The Mission wished to learn whether any other consultants have been involved in studies such as that of TAMS for other dams, and what the capacity of ONBI is to carry out such studies internally.
- 5.8.2. ONBI informed the Mission that no other consultants have been involved so far, but that for large projects in the future they might have to be retained. ONBI's capacity to carry out such studies is limited, it could handle areas of 30-50 ha with its teams that are responsible for construction of down-stream facilities. There is a shortage of both time and personnel, however.
- 5.8.3. ONBI agreed that if consultants were required in the future, a more satisfactory way of integrating the consultants into ONBI would be needed than had been possible with TAMS.

5.9. Assessment of the Socio-Economic Impact of the Projects so far

- 5.9.1. The projects are not yet fully operational. It is, therefore, too early to assess their socio-economic impact.
- 5.9.2. The Mission, however, was able to identify the following points:-
 - a) The provision of the major water sources at Dablo and Tamossogo means that the approximately 5,000 people at Dablo and 1,100 people at Tamossogo, plus an estimated 10,000 head of livestock at the two places have had secure water supplies since early 1978. Previously, their water supplies had been poor.
 - b) Dablo and Tamossogo provide two important watering points along the transhumance route, increasing the number of potential beneficiaries.
- 5.9.3. As far as the environmental impact of the projects are concerned, the Mission had the following observations :-
 - a) the watering facilities for the livestock and the people are probably not going to be used, unless there is a special campaign of encouragement. Direct watering and washing in the lake will increase pollution levels.
 - b) The dam will probably be a source of diseases such as bilharzia.

5.10. Thiou and Kouigny : other loan conditions

5.10.1. In addition to the conditions precedent to first disbursement set out in 5.1.2. above, the ADF set out two important other conditions of the loan :-

- a) the establishment of an inter-ministerial committee to co-ordinate the integrated development of social facilities and service centres which form part of the project ;
- b) a review of prices paid to agricultural producers so that greater encouragement is given to production than at present.

5.10.2. As far as the first of these is concerned, the relevant ministries and departments are consulting by means of exchange of letters. When it has been decided who should sit on the co-ordinating committee, a regulation will be issued formally constituting the committee. This somewhat heavy method of procedure is apparently needed if the ministries and departments concerned are actively to co-operate.

5.10.3. As far as the second is concerned, two commissions have been established, one to review all producer and consumer prices, the other specifically to deal with the price structure and commercialisation of riziculture. These two commissions will report to the Government, which will take decisions on the basis of their recommendations. The officials of ONBI did not know when they would report.

5.11. Water treatment

5.11.1. The Mission referred to the concern of the Bank and other potential donors about the problems of water treatment and the quality of the water. A water treatment study would probably be required as part of the Thiou and Kouigny project.

5.11.2. ONBI officials recognise the problem, but said that the priority for Upper Volta is the quantity of water, and that water quality is a longer term matter. The Ministry of Health is not active in this area at the moment.

5.12. Operation Earth Dams

5.12.1. The Mission sought information on the total size of operation Earth Dams, and its current status.

5.12.2. The programme of 40 dams is indicative, Upper Volta's contribution to the Comité Inter-Etat pour la Lutte contre la Sécheresse Sahélienne (CILSS). The current Status is that about 12 dams have been completed or are in progress, as follows :-

Dablo - complete
Tamossogo - "
Seguenaga - "
Tikare - "
Were - in progress

These are the five dams funded by the ADF loan of 1975.

Debenga - complete
Masafugi - complete
Bonkama - in progress
Sitenga - complete

These four dams are in the Sahel region and are Dutch financed.

Saorli - complete

This dam is in the Centre-Ouest region and is Dutch financed.

- 5.12.3. Irrigation facilities are being developed at other dams which were completed before Operation Earth Dams was instituted. Not all the above dams have irrigation facilities, eg. Seguenaga, Tikare, and Were are for livestock and human watering only because of their limited size.
- 5.12.4. In addition, Thiou and Koungny dams have just been financed.
- 5.12.5. The main sources of finance for Operation Earth Dams and irrigation are the ADF, Holland, and the Fund for Rural Development of the World Bank Group.
- 5.12.6. There are various other projects which form part of the anti-drought programme, including :-
- a) feeder roads such as the CIDA-financed road linking Tamossogo with Kaya ;
 - b) food aid ;
 - c) transport of water to drought-stricken areas ;
 - d) well construction ;
 - e) grain storage.

5.13 The development of a National Water Plan

- 5.13.1. The Mission was concerned to establish whether there is an overall Master Plan for the development of water resources, to avoid potential conflicts in the development of different projects.

5.13.2. The Mission was informed by ONBI that in 1976 there was a UN conference to consider the options for water development in Upper Volta, which had produced the target of 150,000 ha of irrigated land which should be achieved at the rate of 5,000 ha per annum. This conference led to the programme of small dam and well construction which is now being implemented.

5.13.3. Currently, the Aménagement de la Vallée de la Volta (AVV) is having a study of the Black Volta carried out by GERSAR (France), after which a master plan for the exploitation of the water resources of this perennial river will be drawn up.

5.14. Relations between Direction de l'Hydraulique et Equipement Rural (DHER) and ONBI

5.14.1. The Mission had learned before its visit of possible difficulties in the relationship between DHER and ONBI. Until a few years ago, DHER had full responsibility for the development of earth dams and irrigation facilities. ONBI was then created as the organisation responsible for the actual development of dams and their associated facilities, while DHER retained responsibility for overall policy (eg. choice of dam sites, external assistance particularly from Holland for its organisational and operational development).

5.14.2. According to the Directeur Général of ONBI the two organisations work quite closely together, and in his view there is no real difficulty in their relations.

The Mission did not have sufficient time to pursue this any further.

5.15. Conclusions

5.15.1. The Mission concluded that this project has the potential to provide substantial benefit to the people of the area when it becomes operational. To ensure that the facilities are used effectively, it will be necessary to carry out a campaign to encourage use of the watering facilities, and possibly technical assistance will be required if the siphon system of irrigation is to work.

5.15.2. This project provides a good example of the need to supervise closely the work of consultants.

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UPPER VOLTA: TAMOSSOGO DAM, IRRIGATION AND WATERING FACILITIES
HAUTE VOLTA: BARRAGE DE TAMOSSOGO ET LES FACILITES D'IRRIGATION
ET D'APPROVISIONNEMENT EN EAU



Primary Irrigation Canal.
Premier Canal d'Irrigation.

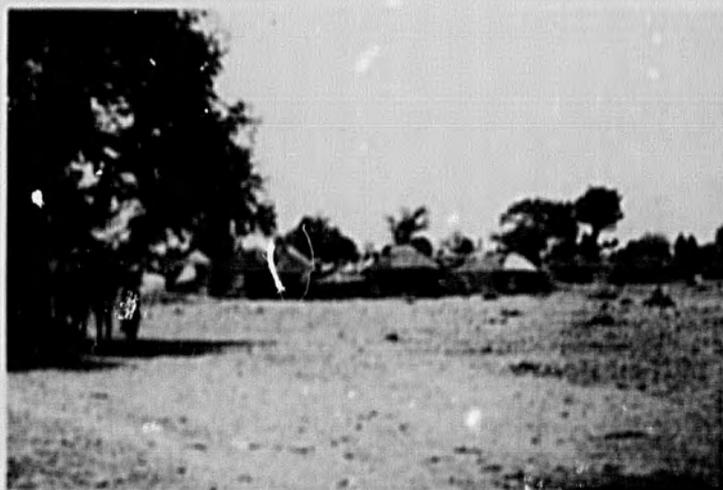


Watering facilities for the people.
Structures d'approvisionnement en eau
pour la population.

UPPER VOLTA: TAMOSSOGO DAM, IRRIGATION AND WATERING FACILITIES
HAUTE VOLTA: BARRAGE DE TAMOSSOGO, ET LES FACILITES D'IRRIGATION
ET D'APPROVISIONNEMENT EN EAU



Livestock watering facilities.
Structures d'approvisionnement en eau pour
le bétail.



Typical village near Tamossogo.
Village typique près de Tamossogo.

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SUMMARY REPORT OF JOINT EVALUATION COMMITTEE MISSION
TO SENEGAL, APRIL 16-22, 1980
DIOSMONE - FIMELA - N'DANGANE ROAD

1. Project : Diosmone - Fimela - N'Dangane Road

1.1. This project involves the construction of a 43 km bitumen-surfaced road in the region of Sine Saloum, Senegal, between Diosmone at the junction with Route Nationale No 1 and N'Dangane on the Saloum coast.

2. Purpose of the Mission

2.1. The mission visited Senegal to review two projects, the Diosmone - Fimela - N'Dangane Road and the Ziguinchor - Cap Skirring Road. As far as Diosmone - Fimela - N'Dangane Road is concerned, the purpose of the mission was to :

- 2.1.1. Discuss with the appropriate authorities the feasibility and final engineering studies carried out by Louis Berger International for the road ;
- 2.1.2. Discuss the implementation of the project ;
- 2.1.3. Visit the project road and gain an impression of its condition, use, and impact ;
- 2.1.4. Obtain any information on the socio-economic impact of the project, particularly with regard to fisheries, agricultural, and tourism development.

3. Composition of the Mission

3.1. The mission was composed of Mr. Amezavie, Co-ordination Unit, ADB, and Mr. J. Speed, consultant to the Joint Evaluation Committee (J.E.C.).

4. Programme of the Mission

4.1. The following was the programme of the mission, including the visit to the second project, the Ziguinchor-Cap Skirring Road.

- 4.1.1. 16 April : Arrival at Dakar in the evening, from Ouagadougou. Due to an error in the telex, giving the mission's date of arrival as 17th April, the mission was not met.
- 4.1.2. 17 April : 09.00 : Introductory meeting with Mr. A. Camara, Directeur-Adjoint du Financement du Plan, to arrange mission. The mission obtained copies of the 5th Economic and Social Development Plan, including the Revised version, which it was able to study during the rest of the morning.

15.30-17.15 : Meeting with Mr. M. Tambadou,

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Directeur General des Travaux Publics (TP) and Mr. P. Mangane, Directeur de l'Infrastructure.

17.30-18.15 : Meeting with Mr. R-P Cousin, Louis Berger International.

4.1.3. 18 April : 09.00 : Meeting with Mr. J. Bovis, Ministère du Plan. As the Agriculture, Fisheries, and Tourism Ministries and departments could not see the mission until 22nd April, the mission continued its review of the Development Plan literature during the morning.

16.30-17.15 : Meeting with Mr. A. Ba, Directeur de l'Entretien Routier et du Materiel.

4.1.4. 19 April : 09.00-14.00 : Visit to Diosmane - Finela - N'Dangane Road.

4.1.5. 20 April : Rest day - Mr. Speed flew to Cap Skirring.

4.1.6. 21 April : Visit to Ziguinchor - Cap Skirring Road.

4.1.7. 22 April : 09.30-10.00 : Meeting with Mr. Dime, Directeur du Cabinet, Secretariat d'Etat du Tourisme, and Mr. A. Sene, Directeur des Etudes.

10.15-10.45 : Meeting with Mr. M. Cissokho, Ministère des Eaux et Forêts, Mr. Biteye, Directeur du Cabinet, Mr. M. Daguin, Conseiller Technique.

11.00-11.30 : Meeting with a Conseiller Technique, Ministère du Développement Rural.

16.00 : Mr. Speed left for Abidjan, while Mr. Amegavie remained to collect statistics from Tourism and to try and see someone at Ministère de la Pêche Maritime. He was successful with the former, but it was not possible to arrange a meeting with Ministère de la Pêche.

5. Findings of the Mission

5.1. The Status of the Project

5.1.1. The project is complete. The road was provisionally handed over in September 1976, and finally handed over in June 1977.

5.2. The Study by Louis Berger International

5.2.1. Louis Berger International carried out the feasibility and final engineering studies between April 1972 and September 1972, with final bid documents being presented in February 1973.

According to Mr. R-P Cousin of Louis Berger International, Dakar, the study was fairly straightforward and proceeded without difficulty. Liaison with the Senegalese authorities was good, as Louis Berger had already done a lot of work for Ministère des Equipements.

- 5.2.2. This was confirmed by Mr. Mangane of Travaux Publics (T.P.). T.P. followed the work of the consultant closely, in line with their usual policy.

5.3. Implementation

- 5.3.1. The ADB appraisal mission followed closely on after the submission of the Final Report of the consultants, in November 1972, and a loan of UA 1.1m was approved in January 1973. The loan agreement was signed in April 1973.
- 5.3.2. There then followed a period of twelve months before the contract for construction was signed with Entreprise Mamadou Sylla. T.P. did not consider that this was an excessive period given that an international tender was required by the ADB, involving a 4-month tender period. The mission was not able to obtain any particular reasons for the delay. Although intervals of this sort appear normal and common, twelve months seems longer than necessary for a project of this size.
- 5.3.3. The contractor chosen, Entreprise Mamadou Sylla, is 100% Senegalese owned. It is the policy of T.P. to encourage the development of such companies, and currently there are half a dozen capable of bidding for major road construction projects.
- 5.3.4. There were problems during the construction phase of the project. The contractor's main experience was in the construction of buildings, and so it took a long time to organise the site and to commence construction. In addition, the work was supervised by T.P. directly through Laboratoire des Bâtiments et Travaux Publics (LBTP) which, according to the representative of Louis Berger, was not experienced in supervision of construction. T.P. gave the contractor an extension of contract of 3 months, but even so the contractor took an additional 8 months to finish, ie the work was completed 11 months behind the original schedule.
- 5.3.5. Of considerable interest is the material used for the surface of the road. At T.P.'s request, Louis Berger examined the possibility of using "coquillage" (crushed, washed, shells) instead of basalt chips in the bitumen surface. Although Louis Berger considered it was feasible, and cost effective because of the availability of "coquillage" close at hand in the Saloum Islands, at appraisal it was decided to revert to basalt chips. This was partly because of uncertainty about the wearing characteristics of "coquillage", but also because

of doubts about the longer-term availability of the material for maintenance.

- 5.3.6. During construction, however, it appears to have been decided to include some extensive sections of "coquillage". Only 8 or 9 km close to the junction at Diosmone are solely basalt chips, "coquillage" has been used for 33 km.
- 5.3.7. As a wearing surface, "coquillage" is inferior to basalt chips as it does not bind together as well, leading to a breaking up of the surface. T.P. have had to patch the surface, using basalt chips.
- 5.3.8. At Dijilas, T.P. have constructed a bridge at a cost of F/CFA 25m, financed by Fonds Routier. This was not included in the ADB financed project, Louis Berger having designed ARMCO-type culverts for the stream. Mr. Oketokoun of ADB, however, informed the Senegalese authorities that a bridge was necessary, and this was constructed separately.

5.4. Maintenance

- 5.4.1. Apart from the deterioration to the "coquillage" surface, the road and associated drainage facilities appear to be in good condition, and well maintained. The weak spots in the "coquillage" have been patched and not left to deteriorate further.
- 5.4.2. With the assistance of World Bank funds, and a study of road maintenance carried out by Louis Berger, the maintenance activities of T.P. have been reorganised, and improved. There is a central road maintenance division (Direction de l'Entretien Routier et du Matériel) responsible for planning, co-ordinating, and controlling all road maintenance activities in Senegal. At the regional and district levels there are local maintenance teams. The maintenance of the Diosmone - Fimela - N'Dangane Road falls under the Kaolack regional headquarters, and the district team at Fatick. The mission was accompanied on the site visit by Mr. N'Dieng, Chief of the Sine Saloum regional office at Kaolack and Mr. A. Cissa, Chief of the Fatick district team.
- 5.4.3. Mr. A. Ba, Directeur de l'Entretien Routier et du Matériel, said that he was including resurfacing of the Diosmone - Fimela - N'Dangane Road with a single additional layer of basalt chip bitumen in the future maintenance budget for the division. This was to strengthen the wearing surface. He was not able to say when this would be carried out.

5.5. The Ferry at N'Dangane

- 5.5.1. A key link in the road is the ferry between N'Dangane and the Saloum Islands. Currently, there is only a small passenger

ferry in operation because the larger, vehicle carrying ferry dating from the colonial times is worn out. Mr. Ba said that he was pressing for its replacement with a refurbished ferry currently in the Casamance region, but it has not yet been decided to transfer it to N'Dangane. Until this is done, the development impact of the road is diminished as there is not an adequate communication link with the Saloum Islands.

5.6. Socio-Economic Impact of the Road

5.6.1. Population

5.6.1.1. The mission was unable to obtain directly statistics for the population along the route. The main settlements are Diosmone, a small grouping of dwellings at the junction with the national highway, Loul Sessene, a large village probably approaching 1000 inhabitants, Djilas and Dioffor, both medium size villages, Fimela, which is a large village, and N'Dangane a small fishing village which is the home of the Ministre des Equipments.

5.6.1.2. According to the Louis Berger study the population in the zone of influence was estimated to be about 28,000 in 1972. Assuming a rate of growth of 2.7% per annum, which is that given by the Division de la Planification Régionale for rural Sine Saloum, the 1980 population is estimated to be approximately 35,000.

5.6.2. Traffic Levels

5.6.2.1. Since the road was completed, there has only been one traffic count, in May 1979. Total daily traffic was counted close to the junction at Diosmone over a seven day period. The total number of vehicles counted was 837, giving a daily average of 120. This compares with the projection in the appraisal report of 118 vehicles/day in 1981. No breakdown by vehicle type is available, but Mr. Ba said that it consisted mainly of slight vehicles, small trucks and taxis. The mission saw very few vehicles on the road during its visit, but it should be pointed out that the visit took place on a Saturday morning which is not a peak time.

5.6.2.2. Traffic counts will be carried out annually in May from now on. May is chosen by T.P. because this is the start of the agricultural season when traffic volumes are generally higher.

5.6.2.3. In the future, some heavier traffic is to be expected, from the fish processing factory recently opened at Djiffer. A good quality earth road between Djiffer and Fimela has just been constructed by a brigade as part of the UN Sahelian project. It should be noted, however, that when the N'Dangane - Joal Road has been improved to bitumen standard, a project

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currently under construction, there will be a more direct route from the factory to Dakar via Joal and M'Bour.

5.6.3. Fisheries Development

- 5.6.3.1. The mission was unable to organise a meeting with the correct department, Direction de l'Océanographie et des Pêches Maritimes. Although the mission requested the Ministère du Plan to arrange a meeting to discuss fishing development, due to a misunderstanding this meeting was arranged with Eaux et Forêts, which is only concerned with inland fishing. Pêches Maritimes is currently the only department with an active extension and development service.
- 5.6.3.2. A certain amount of information is available from the 5th Social and Economic Development Plan and its Revised version, for the period July 1977 to June 1981, issued in 1977 and April 1979 respectively.
- 5.6.3.3. Tables 1 and 2 show how fish production for Senegal as a whole has developed in volume and value terms between 1965 and 1977, and what is forecast in the Plan for 1981.

Table 1. Fish production in volume terms 1965-77 and forecast volume in 1981

('000 tonnes)

	1965	1970	1975	1977	1981 (forecast)
Total	125.2	187.2	373.9	n.a.	595.9
of which :					
Pirogues (maritime)	89.0	133.5	278.7	211.0	310.9
Industrial (maritime)	11.3	35.7	74.2	130.0	245.5
Inland	25.0	18.0	21.0	n.a.	39.5

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Table 2. Fish production in value terms 1965-77
and forecast value 1981

	(F/CFA milliard)				
	current				
	1965	1970	1975	1977	1981 (forecast)
Total	5.1	9.5	23.9	n.a.	32.6
of which :					
Pirogues (maritime)	3.8	6.0	17.4) 25.5	(18.2
Industrial (maritime)	0.7	3.0	5.8)	(13.0
Inland	0.6	0.5	0.7	n.a.	1.4

n.a. = not available

5.6.3.4. In 1977, fishing accounted for 13% of the value added in the primary sector, and 4.5% of gross domestic product. No reason is given in the Plan for the decline in production in volume terms between 1975 and 1977.

5.6.3.5. Although the region of Sine Saloum is not the most important for fishing (contributing 5.5% of Senegal's total value added from fishing in 1977 with approximately 20% of the country's total population), the islands of Saloum constitute a major part of the maritime area of the region.

5.6.3.6. The traditional pirogue fishing sector is most important in the zone of influence of the road. Key development projects which are of direct benefit to this sector in the Saloum Islands are :-

a) motorisation of the pirogue fleet, which in 1977 had reached 66% of the total fleet, twice as many as in 1965. The 5th Plan will extend this further.

b) development of freezer centres, of which the ones at Djiffer and Fatick are already operational in the region.

- c) development of training facilities for fishermen. The only one currently operational is at Joal. This programme is experiencing considerable delays due to lack of funding.
- d) the establishment of the fish processing factory at Djiffer.
- e) the development of the "Centre d'Assistance à la Pêche Sénégalaise" (CAPAS), which started in January 1979 with Canadian CIDA financing after a considerable delay.

5.6.3.7. As yet, the key difficulties that prevent adequate integration of the maritime pirogue fishing sector in the economy of the country are the lack of an adequate distribution network into the interior, with chilling and freezing facilities, and the lack of training and organisation of the pirogue fleets. The projects included in the Plan are only being implemented slowly. Until these projects are implemented, the penetration road from Diosmone to N'Dangane will only play a limited role in aiding the distribution and marketing of production from this sector.

5.6.3.8. As far as industrial maritime fishing is concerned, major planned projects are :-

- a) the development of a modern fishing port at Djiffer together with the fish processing factory : the studies have been completed and a project is being prepared for the development of a wharf and associated facilities ;
- b) the development of an artisanal fishing fleet of 30 boats based on Djiffer, financed by Spain, Italy, and Japan.

5.6.3.9. As noted above, the development of the N'Dangane - Joal Road will mean produce destined for Dakar from Djiffer is unlikely to use the Diosmone - N'Dangane Road. Produce for central and eastern Senegal, however, will probably use it.

5.6.3.10. In summary, the potential of the Diosmone - N'Dangane Road as part of the distribution infrastructure for fisheries produce requires the implementation of other projects before it can be fully realised. The road is there, however, for the time when they are carried through.

5.6.4. Agricultural Development

5.6.4.1. The region of Sine Saloum and the zone of influence of the road lies within the "Groundnut Basin". Groundnuts account for 75% of Senegal's agricultural exports, and 80% of rural

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incomes. The Government is seeking to diversify agricultural production, in particular towards the cultivation of cereal crops, which are currently imported and provide and drain on the balance of payments.

- 5.6.4.2. After the drought years 1968-1972, Senegal experienced three years of good rains from 1973 to 1976. At this time the Government also increased agricultural producer prices and subsidised the factors of production. This led to increased production, and an increase in the proportion of primary sector value added accounted for by agriculture. In 1977 and 1978, however, the rains were poor again, and this is reflected in the statistics set out in tables 3 and 4.

Table 3. Agricultural Production, Key crops 1973/4 to 1978/9, and objective 1981

	('000 tonnes)						
	<u>1973/4</u>	<u>1974/5</u>	<u>1975/6</u>	<u>1976/7</u>	<u>1977/8</u>	<u>1978/9</u>	(Objective) <u>1981</u>
Groundnuts for oil	675	994	1,450	1,182	586	950	1,200
Millet & Sorghum	511	780	677	507	416	795	750
Maize	32	43	49	42	32	47	148
Rice	64	117	116	106	62	128	300
Cotton	33	41	43	47	38	40	66
Horticulture	64	86	103	103	90	108	n.a.

Table 4. Development of value added in Agriculture 1972/3-1977/8

	Current F/CFA Billiards, %					
	<u>1972/3</u>	<u>1973/4</u>	<u>1974/5</u>	<u>1975/6</u>	<u>1976/7</u>	<u>1977/8</u>
Agriculture Value Added as % of Primary Sector Value Added	44%	47%	59%	60%	54%	45%
Value Added, Agriculture	27.6	37.6	72.6	84.3	73.3	49.4
Of which :						
Groundnuts	10.1	16.0	35.0	50.3	40.5	21.5
Cereals	10.5	14.1	28.2	23.6	21.6	17.1

Source : 5th Social and Economic Development Plan (Revised) April 1979

- 5.6.4.3. The importance of the Sine Saloum region in Senegal's agriculture is shown that, with 20% of the population, it accounted for 35.8% of total value added in 1977, and 36% of total hectareage under cultivation.
- 5.6.4.4. Although the mission was not able to obtain any statistics specific to the zone of influence of the road, it was clear from observation that it passes through an agricultural area. The mission saw several groundnut depots, where lorries were loading sacks of groundnuts.
- 5.6.4.5. In total, F/CFA 6.8 milliard of agricultural investment is planned for the 1977-81 development plan in Sine Saloum as revised. This consists mainly of the region's share of national development projects. Almost two thirds of this investment is being channelled through SODEVA for a wide range of rural development and extension measures. At Fimela, the mission saw a large grain store under construction.
- 5.6.4.6. The mission consider it reasonable to conclude that the Diosnone - Fimela - N'Dangane Road provides an important artery for the

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evacuation of agricultural produce from the area and for the supply of inputs.

5.6.5. Tourism

- 5.6.5.1. The ADB appraisal report of January 1973 emphasised tourist development in the area as a justification for the project, discounting however, some of the plans that were included in the Louis Berger study.
- 5.6.5.2. The appraisal report took into account the development of 80 beds by 1974/5 in the three tourist zones of N' Dangane, Niodor, and Dionewar. In fact the following development had occurred by 1978 :-

<u>Establishment</u>	<u>N° of beds</u>
Hotel Dior, Kaolack	60
Camp at Toubacouta	30
Relay camp, Kahore Beach	32
Camp at Djiffer	23
Relay camp at Fatick	12
Hotel de Paris	34
Hotel N'Dangane (under construction)	120
Relay camp Dionewar	40
Camp Foundiougne	80
	—
Total	431

5.6.5.2. In 1975 there were 108 beds in the Sine Saloum region.

5.6.5.3. The intention is to develop tourism in the Saloum Islands area as part of circuits based on Dakar and the adjacent "Petite Côte". The Diosmone - N'Dangane Road is an important link in this.

5.6.5.4. The statistics published by the Secretariat d'Etat au Tourisme do not provide occupancy rates separately for Sine Saloum, nor do they provide statistics of the number of tourists visiting the Saloum Islands. A detailed enquiry would be needed to assess this. It should be noted however, that for the full potential of the Saloum Islands to be realised, adequate ferry facilities are needed, which are currently not available, which reduces the impact of the road.

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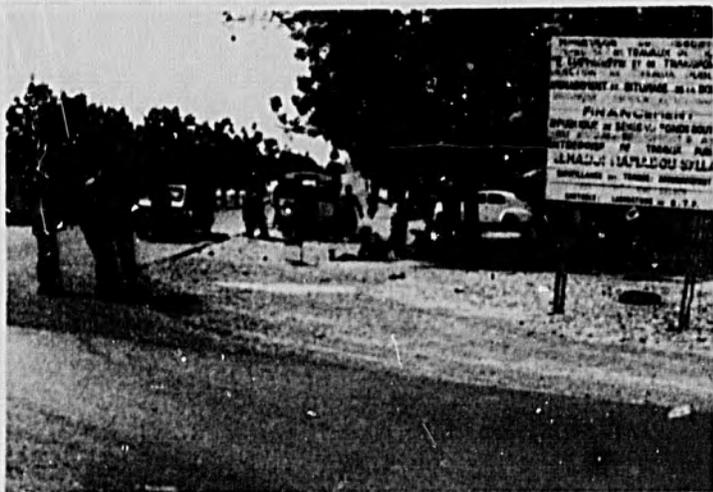
- 5.6.5.5. The 5th Social and Economic Development Plan notes that between 1974 and 1977 the construction of tourist facilities proceeded faster than the growth in the number of tourists arriving in Senegal, leading to a fall in occupancy rates to below 30% in some areas.
- 5.6.5.6. Between 1977 and 1978, however, there was an increase of 15% in the number of tourist arrivals, and a 25% increase in the number of nights spent. This was the most significant growth achieved since 1973/4.
- 5.6.5.7. Tourism is now Senegal's second most important earner of foreign exchange, after groundnuts and before fish products. In 1975 foreign exchange receipts were F/CFA 1.54 milliard, in 1978 they reached F/CFA 2.96 milliard.
- 5.6.5.8. In conclusion, the mission assessed that the Diosmone - Fimela - N'Dangane Road provides an important part of the necessary infrastructure for the development of tourism in the area. It was not able, however, to finally assess whether the current level of tourist activity has reached that forecast in the appraisal report, although the provision of beds has gone beyond that specified.

5.7. Conclusion

- 5.7.1. The road that has been built between Diosmone and N'Dangane is in good condition. Apart from the delays during the construction phase the entire project from study through to completion appears to have been successful.
- 5.7.2. The mission was left, however, with the impression that the road has been built considerably ahead of the developments that it is intended to serve.

SENEGAL: DIOSMONE-FIMELA-N'DANGANE ROAD

SENEGAL: ROUTE DIOSMONE-FIMELA-N'DANGANE



Junction at Diosmone.

Jonction à Diosmone.



Groundnut depot.

Depôt des arachides.

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SENEGAL: DIOSMONE-FIMELA-N'DANGANE ROAD

SENEGAL: ROUTE DIOSMONE-FIMELA-N'DANGANE



Hotel at N'Dangane under construction.

Hôtel à N'Dangane en construction.



Motorised Fishing Pirogues

Pirogues motorisées.

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SUMMARY REPORT OF JOINT EVALUATION COMMITTEE
MISSION TO SENEGAL, APRIL 16 - 22 1980 ;
ZIGUINCHOR - CAP SKIRRING ROAD AND BRIDGES

1. Project

- 1.1. This project consists of the construction of 3 bridges along the new alignment of the Ziguinchor - Cap Skirring Road (approximately 70 km), and the construction of the road itself to bitumen standard. The project is situated in the Casamance Region of Senegal.

2. Purpose of the Mission

- 2.1. The mission visited Senegal to review two projects, the Diosmone - Fimela - N'Dangane Road in the Sine Saloum region, and the Ziguinchor - Cap Skirring Road and Bridges in the Casamance region. As far as the latter is concerned, the purpose of the mission was to :-

- 2.1.1. Discuss with the appropriate authorities the feasibility and final engineering studies carried out by Louis Berger International for the road and bridges ;
- 2.1.2. Discuss the implementation of the project, which is in two phases, the first being the bridges, the second the construction of the road;
- 2.1.3. Visit the project site and obtain information on the progress of the project and gain an impression of its potential impact on the area ;
- 2.1.4. Obtain information on fishing, tourism, and agricultural development in the zone of influence of the road.

3. Composition of the Mission

- 3.1. The mission was composed of Mr. C. Amegavie, Co-ordination Unit, ADB, and Mr. J. Speed, Consultant to the Joint Evaluation Committee (JEC).

4. Programme of the Mission

- 4.1. The programme of the mission was as set out in the summary report on the Diosmone - Fimela - N'Dangane Road project.
- 4.2. The visit to the project site was on April 20 and 21. Mr. Speed visited Cap Skirring on April 20, and travelled back to Ziguinchor along the existing road and part of the new road on the morning of April 21, by "taxi-brousse". This enabled the mission to obtain a first hand impression of the condition of the existing road, and the tourist and agricultural development in the western Casamance. At Ziguinchor he rejoined Mr. Amegavie, together with Mr. P. Mangane, Directeur de l'Infrastructure, Travaux Publics; Mr. G. Isoarii, head of Ceoprogetti, supervising consultants for the road construction; Mr. Grimaldi, resident engineer of SOSETER, construction contractors; Mr. M. Samb, Chef du Service Régional des T.P. de Casamance; and Mr.

A. Diallo, project site liaison officer for the Senegalese administration.

5. Findings of the Mission

5.1. Status of the Project

5.1.1. Phase I : 3 bridges

5.1.1.1. The first phase of the project financed by ADB, consisting of the construction of 3 bridges over the Kamobeul River (360 metres), the Katakolous River (210 metres) and the Diakene River (72 metres), at KM 28, 50, and 53 respectively from Ziguinchor, is complete. The first of these bridges is on the existing alignment and was opened for traffic in May 1979. The other two bridges are on the new alignment, and so are not yet in use.

5.1.2. Phase II : the Road

- 5.1.2.1. Construction started on the road in October 1979. The first section to be constructed is the 28.5 km from Ziguinchor to the Kamobeul Bridge, starting at the bridge end. The target of the contractor and supervising consultants is to complete this section before the rains come, which normally would be by mid-June. Although the contractor is currently about one and a half weeks ahead of schedule, and planning work is two months ahead of schedule according to the consultants, the target that has been set is demanding, and if the rains come early, it is probable that this section will not be completed in time.
- 5.1.2.2. Currently, the contractor is working extended hours including weekends. At the bridge end of the section, several kilometres have received their second layer of bitumen and basalt chips, and from Km 17 to approximately Km 24 either the first seal or the seal and first layer of bitumen and basalt has been applied.
- 5.1.2.3. Between Ziguinchor and Brin (approximately 12 km) work is either at the foundation, sub-base, or base course stage.
- 5.1.2.4. Although the contractor is concentrating on the Ziguinchor - Kamobeul Bridge section, some important work is occurring on the Oussouye - Cap Skirring section, along the new alignment. Approximately 7.5 km of this section passes through mangrove swamps and "marigots", requiring extensive fill to provide a suitable base. This necessitates building up a 35 m wide platform before the rains, allowing it to settle and stabilize until after the rains when it will be possible to start road construction on it. M. Speed saw work progressing on this during his flight from Ziguinchor to Cap Skirring on April 20.
- 5.1.2.5. The contractual period for the construction of the road is

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for 30 months (24 months work, 6 months suspension due to 2 rainy seasons.) Work should be completed in March 1982.

5.2. The studies by Louis Berger International

- 5.2.1. Louis Berger International carried out two studies for the road and bridges :-
- a) Economic and Technical Feasibility study between August 1972 and the end of 1973, financed by a grant under the ADB/USAID Regular Grant programme ;
 - b) Final Engineering Design and Preparation of Bid Documents between March 1975 and April 1976, financed by an ADB loan approved in September 1974.
- 5.2.2. The mission wished to obtain the views of Travaux Publics about the delay between the feasibility study and the final engineering design study. Mr. Mangane, Directeur de l'Infrastructure did not consider that the delay was abnormal. He was not aware of any particular reasons for the delay. It simply took time to arrange for a different source of financing for the second study, once the feasibility study had shown that the project was feasible.
- 5.2.3. Mr. Cousin of Louis Berger International said that delays of this sort between the two studies were frequent, particularly where different funding sources are used. As consultants, it was a problem they had to live with. In this case, no-one from the team that carried out the feasibility study was available for the final engineering design study. This did not prove to be such a disadvantage as might be expected, in his opinion, because Louis Berger was able to bring in two engineers with special experience of road construction in mangrove swamps.
- 5.2.4. Despite the view expressed both by the representatives of T.P. and the consultant, the mission considers that every effort should be made to reduce delays of this sort by careful programming of project stages and development. The mission feels that the delay in this case was longer than is desirable, and could be shortened.
- 5.2.5. Mr. Mangane informed the mission that the studies carried out by Louis Berger International had been implemented satisfactorily, with good liaison with the Senegalese authorities. He said, however, that one of the reasons for choosing Geoprogetti as supervising consultants rather than Louis Berger, was to see whether there were any problems in implementing the Louis Berger design. If Louis Berger did the supervision, he thought that they might be able to cover up any deficiencies in the existing design.
- 5.2.6. Indeed, during the site visit the mission learned of a number
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of problems which have arisen, some as a result of apparent deficiencies in the Louis Berger study, others resulting from the delay in implementing the road project. It should be noted that at the implementation stage of a project there are always changes made to the final engineering study. The problems and changes are set out below.

- 5.2.6.1. The alignment adopted by Louis Berger leading out of Ziguinchor would have required demolition of 50 dwellings, with compensation for the owners. The Government had decreed that as far as possible, this should be avoided, so by amending the alignment slightly, involving some compromises with normal engineering practice, Geoprogetti has been able to reduce the number to 7 dwellings. They are also trying to keep to a minimum the number of trees that have to be felled.
- 5.2.6.2. Along this same initial section, there are now some concrete storm drainage ditches which did not exist at the time of the Louis Berger study. This has necessitated design modifications to the road to take these structures into account.
- 5.2.6.3. According to Mr. Isoardi, the Louis Berger study did not take sufficient account of the salinity levels in the drainage water along the sections of existing alignment which are to be retained. Accordingly, it did not envisage replacing the existing steel culverts along these sections. Geoprogetti has found, however, that these culverts are rotting, and need to be replaced by concrete structures.
- 5.2.6.4. Again according to Mr. Isoardi, the Louis Berger study did not adequately assess the problems of obtaining sufficient fresh water supplies for the construction of the road. At Brin, for example, it was proposed by Louis Berger to sink a 10 metre well. In the event, a 182 metre borehole has been required to obtain suitable quantities of fresh water. The other boreholes that have been sunk are between 60 and 80 metres deep.
- 5.2.6.5. There are considerable problems in obtaining adequate supplies of materials suitable for road building. The Louis Berger study identified two main quarries, at Brin and Etome, for laterite supplies for the foundation and base courses. Since the study, T.P. and private contractors have used these quarries, so that at Etome no good supplies of laterite are left. Geoprogetti has had to carry out another geotechnical survey to add to the quarry sites. They have identified several more, but the quality of the laterite is inferior. It is not of sufficient quality to be used for the road shoulders without cement stabilization, as had been recommended originally by Louis Berger. Basalt chips for the wearing surface have to be hauled 700 km to the project site. The problem with supplies of laterite illustrates well the sort of problems that arise when there are considerable delays in execution thus necessitating work to be repeated.

- 5.2.6.6. At Brin, Geoprogetti have altered the alignment prepared by Louis Berger. Although this involves the retention of a sharp almost 90° curve in the road, it avoids knocking down 7 or 8 dwellings, and also avoids desecrating a sacred forest. It appears that Louis Berger may not have spent sufficient time on the ground with the local authorities checking that the alignment was acceptable from the point of view of local customs and traditions.
- 5.2.6.7. At Oussouye there has been a further major change of alignment. Oussouye is growing (in 1976 the population was estimated to be about 2,500) and the government has requested that an alignment through Oussouye should be chosen, avoiding the need for a spur to the village. It should be noted here that in the feasibility study, Louis Berger considered the two alternatives in some detail and recommended the option with the spur to Oussouye as being more economic. This was accepted by the authorities at the time. This amendment seems also to reflect changing conditions and attitudes over a period of time. The alignment now adopted avoids a lot of rice growing areas that would have been affected by the Louis Berger alignment.
- 5.2.6.8. Between Oussouye and Cap Skirring, the road passes through an area of mangrove swamps and inlets ("marigots"). The alignment in the Louis Berger study presents several problems according to Mr. Isoardi. First, in a couple of places, where the plans show relatively minor amounts of water to be coped with by drainage, Geoprogetti has found wide and fairly deep stretches of open water which would need to be bridged. Secondly, in one place the road passes tangentially to the curve of a major marigot. This alignment passes straight over the only dwelling in the area, and is also so close to the edge of the marigot that there would be danger of severe erosion to the road if this alignment were retained. Accordingly, Geoprogetti have moved the road a few metres. Mr. Isoardi did not consider that changes in the hydraulic conditions of the area since the Louis Berger study were responsible for this. He wondered whether sufficient time had been spent on the ground in the area. Access is extremely difficult, with long journeys by pirogue and on foot through inundated areas being necessary.
- 5.2.7. The mission asked what the impact of the changes on the cost of the project would be. Mr. Isoardi said it was too early to say, as he had not yet assessed the balance. Some changes had resulted in economies, others in added expense.

5.3. Delays between completion of studies and implementation

- 5.3.1. The final engineering design study was completed in April 1976, and was followed by an ADB appraisal mission six months later, and approval of a loan for the 3 bridges in February 1977.
- 5.3.2. It was intended that the road and bridges should be constructed

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simultaneously, with a co-financing package including ADB for the bridges, with the Islamic Development Bank (IDB) and the Arab Bank for Economic Development in Africa (ABEDA) financing the road. Indeed, the ADB appraisal report for the bridges recommended that a condition precedent to first disbursement of the ADB loan should be the securing of a firm commitment of Senegal from these two sources for the road construction.

- 5.3.3. A tender for the whole project was issued in 1976, but could not be proceeded with because ABEDA did not come forward with its contribution. Despite this, ADB allowed the bridges component to go ahead, and then agreed to fill the financing gap for the road as phase II, at the request of the Senegalese Government.
- 5.3.4. The result of this difficulty concerning the financing of the whole project was that the implementation of phase I was delayed until the end of 1977, and phase II required a second ADB appraisal in 1978, with the loan by ADB being approved in February 1979. Work started in October 1979, although at the time of the visit of the mission, Geoprogetti still had not been able to sign a contract with the Senegalese Government.

5.4. Training of T.P. Personnel

- 5.4.1. The mission asked whether T.P. had been able to arrange for training of its personnel either with the consultants for the studies or with the supervising consultants. Mr. Mangane said that it was the policy of T.P. to negotiate the inclusion of T.P. staff in consultant teams for training purposes wherever possible. Two senior technicians are attached to Geoprogetti and the arrangement seems to be working well.
- 5.4.2. This policy is relatively recent, and Mr. Mangane said that it was too soon to assess its impact. It clearly has potential to be an important source of training and experience, however.

5.5. Socio-Economic Impact of the Road and Bridges

5.5.1. The project area

- 5.5.1.1. The project is situated in the Basse-Casamance sub-region of the Casamance, in the south western tip of Senegal. The Casamance region is one of the richest in the country, abounding in luxurious vegetation, navigable inlets, wildlife, and attractive beaches. The road impact area is primarily farmlands, plains, forests and mangrove swamps.

5.5.2. Population

- 5.5.2.1. The mission was unable to obtain statistics for the total population in the zone of influence of the road. It was, however, able to obtain some information from the 5th Social and Economic Development Plan (1977-81) on the Casamance

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region. The total population of the region has increased from 620,000 in 1967 to an estimated 774,000 in 1978, of which 81% live in rural areas. The population of the Casamance amounts to 14.5% of Senegal's total population estimated at 5.4 million in 1978. Forecast population growth for the period 1970-81 is estimated to be 7.1% per annum for the urban areas of the region, and 1% for the rural population, giving an average of 2% per annum for the region's total population.

- 5.5.2.2. The two major settlements on the road are Ziguinchor, the regional capital, with a population estimated to be more than 80,000 in 1978, and Oussouye, where population is approaching 3,000. In 1973 Louis Berger estimated the population in the zone of influence of the road to be almost 100,000. Applying the rates of increase above, the 1980 population is estimated to be over 140,000.

5.5.3. Traffic levels

- 5.5.3.1. Although the road is not complete, the mission was able to obtain some information on current traffic levels on the existing road. In May 1979, a traffic count was taken close to Ziguinchor, which found during the week of the count an average daily traffic of 387 vehicles. This compares with a forecast of 431 vehicles/day in 1980 contained in the ADB appraisal reports, based on the Louis Berger study. This total volume of traffic is not broken down by vehicle type in the traffic count.
- 5.5.3.2. During the journey back to Ziguinchor from Cap Skirring, Mr. Speed had the opportunity to observe traffic on the existing road. Between 08.00 and 09.00 hours several taxis left Cap Skirring for Ziguinchor carrying a mixture of tourists and people travelling to Ziguinchor on personal business. Several were carrying agricultural and fish produce.
- 5.5.3.3. The journey from Cap Skirring to Ziguinchor currently takes about 2 1/2 hours for the 80 km. The road is in poor condition, not having been designed, but merely graded through the bush. It crosses areas of rice paddy which must be impassable during the rains. The new road will reduce journey time to less than one hour.

5.5.4. Agricultural Development

- 5.5.4.1. Statistics on the development of agriculture in Senegal as a whole during the 1970's are given in the report on the Diosmane - Fimela - N'Dangane Road, and are not repeated here.
- 5.5.4.2. The importance of the Casamance region in the agricultural production of the country is considerable. In 1977, with 14.5% of the country's population and 12% of the country's cultivated area it produced 17% of total value added in the

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country from arable agriculture, and 22% of value added from livestock. This is a function of the Casamance's favorable climate, with heavier rainfall than other parts of Senegal.

- 5.5.4.3. As far as certain crops are concerned, the Casamance's position is even more striking. In 1976 it produced 84% of the nation's production of rice, the staple food of Senegal, 38% of the country's cotton, 34% of its maize, and 53% of its potatoes.
- 5.5.4.4. Mr. Speed observed very wide expanses of rice paddy, reliant on rainfall for their water source rather than irrigation, in the area between Oussouye and Cap Skirring on the old alignment. As the mission took place in the dry season there was no cultivation in progress, although farmers were beginning to prepare the paddy.
- 5.5.4.5. Of particular importance to the development of arable agriculture in Casamance is the establishment of SOMIVAC (Société de Mise en Valeur Agricole de la Casamance) in November 1976. In the revised plan 1977-81 it is planned to spend F/CFA 7.2 milliard through SOMIVAC out of a total planned investment of F/CFA 13.313 milliard for agriculture in the Casamance. Currently, SOMIVAC is concentrating on a series of projects for dams across certain "marigots" with the objective of controlling salt water intrusion and reclaiming land for cultivation. Louis Berger is involved in the studies for these dams. Unfortunately these projects are currently being delayed for lack of finance.
- 5.5.4.6. A project that SOMIVAC has taken over in the Basse-Casamance, has since 1973 increased rice yields on 8000 ha from 1.5 tonnes/ha to 3 tonnes/ha. Forecast investment in livestock development during the period 1977-81 is much more modest at F/CFA 172 million for the whole Casamance. F/CFA 150 million of this is for a regional abattoir at Ziguinchor.
- 5.5.4.7. Although the road is not yet completed, the mission obtained the impression that it will prove an important link in the distribution of agricultural produce, particularly rice, from the zone of influence, reducing transport costs. The mission noted, however, that as there are a number of small settlements and rice growing areas along the existing road from Cap Skirring to Oussouye which will not be on the new road, it will be most important for the existing road to be maintained and improved as a production feeder road leading onto the new road.

5.5.5. Fisheries Development

- 5.5.5.1. As with agriculture, the report on Diomane - Finela - M'Dangane Road provides details of the national development of fisheries.
- 5.5.5.2. In 1977 the contribution of value added in the Casamance to

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the total fisheries value added in Senegal was F/CFA 1,186 milliard, or approximately 7%. This is primarily sea fishing with pirogues, using traditional methods.

- 5.5.5.3. A modern fishing industry is being located at Elinkine on the Casamance River, which is linked to Oussouye by a dirt road. This project, referred to in the 1979 ADB appraisal report consists of :-
- a) the installation of freezer facilities : this is already done ;
 - b) development of a modern artisan fishing fleet of 22 units, based on a development of traditional fishing ;
 - c) the development of fishing port facilities at Elinkine.
- 5.5.5.4. Like most projects in the 5th plan, the Elinkine project has moved forward more slowly than originally planned.
- 5.5.5.5. As noted in the report on the N'Dangane - Fimela - Diosmone Road, the regional maritime fishing industry will only be adequately integrated into the economy of the country when there is an adequate distribution network of cold centres so that fish can be transported long distances inland without deterioration. A regional road such as the Ziguinchor - Cap Skirring Road can help, but the complimentary investment is needed if its full potential can be used.
- 5.5.5.6. There is potential for developing freshwater fishing in the marigots in conjunction with the programme of dams for control of salt water intrusion. The Ministère des Eaux et Forêts is interested in this, but currently lacks the means to do anything. It is possible that ADB might be asked to finance a study of this.
- 5.5.6. Forests
- 5.5.6.1. Exploitation of the timber resources of the southern part of the zone of influence of the road is only starting. In 1977 the value added from this activity was nonetheless greater than from fishing in the whole of the Casamance, at F/CFA 1.5 milliard, or 18% of the national total.
- 5.5.6.2. During the period 1977-81 UNDP and Holland are financing a project for the development of forests in the Basse - Casamance. There is also a large project to protect the timber resources of the area from bush fires during the dry season
- 5.5.6.3. The new road should assist the implementation of these projects.

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5.5.7. Tourism

5.5.7.1. Since 1976, tourism has been Senegal's second largest earner of foreign exchange after groundnuts. The Casamance is Senegal's third most important region in terms of tourist development after Cap Vert (Dakar) and Thiès (Petite Côte, just south of Dakar). Considering the isolation of the area (which, of course constitutes part of its attraction) the level of development of tourism in Casamance in general and Basse-Casamance in particular is significant. In 1976 ADB financed a study of tourist development potential in the Casamance. The recommendations of this study are currently under consideration.

5.5.7.2. The Louis Berger feasibility study estimated that 75-80% of the benefits from the road would come from tourist development, using a value added approach. The ADB appraisal report did not quantify tourism benefits other than in assessing road user savings from tourism induced traffic. This substantially reduced the importance of tourism benefits to the calculation of the internal rate of return. The ADB appraisal reports do not specify forecast tourist development, the Louis Berger study applies sensitivity analysis to a rate of development of between 200 and 400 beds per year, assuming improvements to the Cap Skirring airfield to provide a Class C level of facilities (capable of handling HS 748 aircraft) by 1977, and completion of the road in 1977.

5.5.7.3. In the event, in 1978 there were 892 beds in the Casamance region, and there has been further development since then. The mission was unable to obtain separate statistics for the Basse-Casamance, but the following is available from the 5th Development Plan :-

a) <u>Hotels at Cap Skirring</u>	<u>N° of beds</u>
Club Méditerranée	412
Hotel Kabrousse-Messor (Socitour)	120
Hotel Ermital	not known
Hotel Aubert	not known
b) <u>Hotels at Ziguinchor</u>	<u>N° of beds</u>
Hotel Aubert	not known
Hotel Le Diola	100
2 others, names not obtained	not known

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- 5.5.7.4. In addition to this, a Camp at Kolda with 20 beds is complete, and two local relays with a total of 40 beds are also complete.
- 5.5.7.5. The long planned USIMA hotel at Cap Skirring with 150 beds forecast has not yet gone ahead and may be a dead project, as the investors state they are waiting for an adequate level of infrastructure before they commit themselves to the project.
- 5.5.7.6. The number of tourists arriving in the Casamance, the majority of whom will have passed through Ziguinchor, almost doubled between 1977 and 1978, from 12,601 to 22,944. Surprisingly, however, it seems that the number of nights spent by tourists actually fell slightly, from 93,961 to 91,268. The average number of nights/tourist therefore, dropped from 7 1/2 in 1977 to 4 in 1978. This was against the trend in all other regions. The mission suspects there may be an error in these figures which are taken from "Statistiques du Tourisme - Année 1978" published in December 1979 by Secrétariat d'Etat au Tourisme.
- 5.5.7.7. As far as complimentary development is concerned, the runway at Cap Skirring has been bitumenised and is capable of receiving HS 748 aircraft. It is planned to reinforce the runway to take Fokker F 27 which are shortly to be introduced by SONAIRA. Both Ziguinchor and Cap Skirring airports will have additional investment in equipment during the 5th Plan.
- 5.5.7.8. Plans to move Ziguinchor airport away from the town and to upgrade it have been withdrawn from the 5th Plan in its revised version (April 1979).
- 5.5.7.9. In summary, the mission was able to establish that tourism in the Basse-Casamance between and at Ziguinchor and Cap Skirring has developed substantially during the latter part of the 1970's, without the new road, and it seems reasonable to suppose that the completion of the bitumen road will assist future development of this most attractive area.

5.6. Conclusion

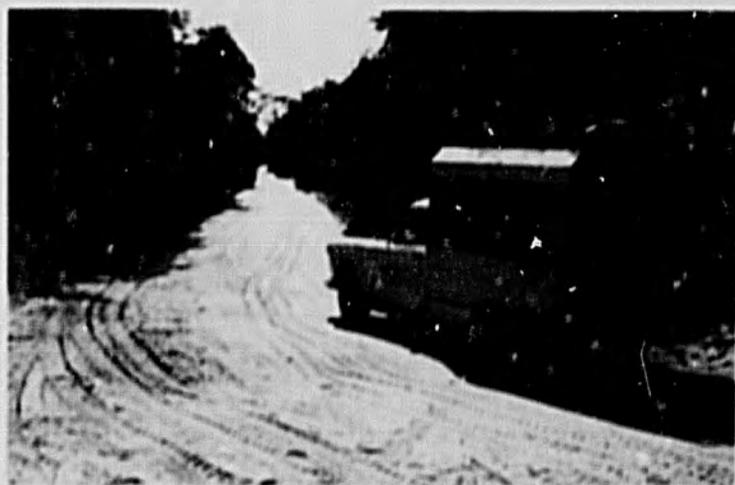
- 5.6.1. The mission found that this project is proceeding well. There have been delays during the course of preparing this project in particular between the feasibility study and the final engineering design, and then between completing the design and implementing the project. Nonetheless, implementation now is well advanced.
- 5.6.2. The mission concluded that this road will be an important item of infrastructure in developing the considerable potential of this area.

SENEGAL: ZIGUINCHOR-CAP SKIRRING ROAD

SENEGAL: ROUTE ZIGUINCHOR-CAP SKIRRING



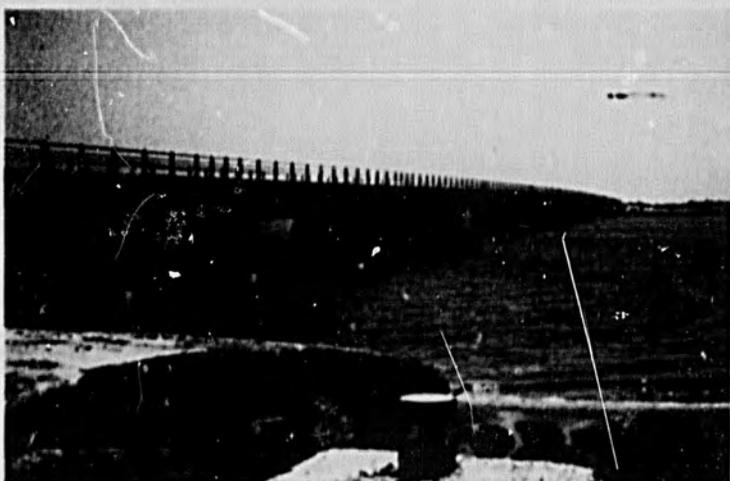
The new road under construction.
La nouvelle route en construction.



Existing road.
Route actuelle.

SENEGAL: ZIGUINCHOR-CAP SKIRRING ROAD

SENEGAL: ROUTE ZIGUINCHOR-CAP SKIRRING



Kamabeul Bridge.
Pont Kamabeul.



Village, Basse Casamance.
Village, Basse Casamance.

SUMMARY REPORT OF JOINT EVALUATION COMMITTEE
MISSION TO BENIN, APRIL 24-25, 1980

1. Project : Construction of a new bridge across the lagoon at Cotonou, improvements to the existing bridge, and the construction of a dam across the lagoon.

2. Purpose of the Mission
 - 2.1. To discuss with the appropriate authorities the detailed engineering study carried out by Sanders and Thomas Inc. for the three sub-projects ;
 - 2.2. To obtain a recent report on the status of implementation of the sub-projects ;
 - 2.3. To visit the sites of both bridges and the dam ;
 - 2.4. To obtain any information on the socio-economic impact of the sub-projects, in particular the effect of the dam on controlling salinity in the lagoon and Lake Nokoué, and thus on the development of the fishing industry.

3. Composition of the Mission
 - 3.1. The mission was composed of Mr. J. Speed, Consultant of the Joint Evaluation Committee (JEC). It had been intended that he should be accompanied by someone from ADB on the mission, but this did not prove to be possible.

4. The Programme of the Mission
 - 4.1. The following was the programme of the mission :-
 - 4.1.1. 24 April Arrival at Cotonou, 11.30 hours, where the mission was met by Mr. H. Doutetien, of Service des Etudes, Direction des Routes et Ponts, Ministère des Travaux Publics (T.P.), and Mr. M. Laourou, of Direction des Affaires Monétaires et Bancaires (DAMB), Ministère des Finances. Mr. Laourou was responsible for the mission's organisation and attended all meetings.

12.15-12.30 : Short meeting with the Directeur des Routes et Ponts.

12.45-14.00 : Meeting with Mr. Gondou, Chef du Service des Etudes, Direction des Routes et Ponts, Ministère des T.P. and Mr. G. Vlachos, Resident Engineer, Sanders and Thomas Inc.

15.00-17.00 : Visit to the three sub-projects, accompanied by Mr. Laourou, Mr. Vlachos, and Messrs. M. Poux and G. Bougeret, of Société des

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Grands Travaux de l'Est (GTE) who are the contractors for the dam and improvements to the existing bridge.

- 4.1.2. 25 April 07.45-08.30 : Meeting with Mr. A. Océni, Directeur, Département Dette Publique, Caisse Autonome des Amortissements.
- 08.30-10.30 : Meeting with Mr. H. Doutetien, Mr. M. Bessalel, Director of Sanders and Thomas Inc. in the United States, Mr. G. Vlachos, and Mr. Fagbouhoun, Directeur des Pêches.
- 10.30-11.00 : Meeting with Mr. C. Gandji, Directeur des Etudes, Ministère du Commerce.
- 12.00-12.20 : Meeting with the Directrice des Douanes.
- 13.00-13.15 : Meeting with Directeur de la DAMB, Ministère des Finances.
- 15.30-18.00 : A second, unscheduled visit to the dam and the sandspit across the mouth of Cotonou lagoon.
- 20.00 : Departure for Abidjan.

- 4.1.3. Considering that the mission had less than two days in Cotonou, it was able to obtain a considerable amount of information. This is largely due to the excellent co-operation of the Benin authorities and their readiness to give interviews at short notice.

5. The findings of the Mission

5.1. The Status of the Sub-projects

5.1.1. The new bridge across the lagoon

- 5.1.1.1. The new bridge across the lagoon at the Boulevard St. Michel is financed by USAID. It was completed in October 1979, and currently the contractor (the American firm Nello Teer) is working on the new access roads to the bridge. These should be completed by mid-June 1980, according to Mr. Vlachos, of Sanders and Thomas, who are supervising the work.
- 5.1.1.2. According to Mr. Vlachos, Nello Teer are approximately 5 months behind their overall programme. This is because of additional works that have been carried out and because of various delays, for example in cement deliveries.
- 5.1.1.3. The bridge consists of 2 separate spans, each carrying a two-lane highway. The first of these spans was opened to traffic in July 1979, the second in October 1979.

5.1.1.4. According to Mr. Vlachos and the two engineers from GTE, the maintenance requirements of this bridge will be small. The authorities will have to monitor the extent of scour around the piles, plus normal maintenance to the roadway, lighting, drainage, etc. The mission noted that the level of maintenance of roads inside Cotonou is low, and many bitumen roads are in poor condition.

5.1.2. Improvements to the existing bridge

5.1.2.1. This sub-project, together with the dam, comprises the ADB financed part of the project.

5.1.2.2. Work started on the renovations in October 1979 when the new bridge was opened to traffic, and according to the contract work should be completed in March 1981. Currently, the contractor (GTE) is six weeks ahead of schedule, and the site engineer is confident that, barring unforeseen delays, the work should be completed ahead of schedule.

5.1.2.3. The first stage of the work was to break up the central section of the bridge, lift the railway lines, and relay them. In order to avoid disrupting rail traffic, this had to be done at night, with a twelve metre section being completed each night.

5.1.2.4. The next stage was to break up and replace the landward side of the roadway. This is currently about 80% complete. The transverse girders across the central part of the bridge have not had to be replaced, nor has the bridge sub-structure, but the wing brackets supporting the roadway have had to be replaced. When the landward carriageway has been completed, the seaward side will be tackled.

5.1.3. The dam across the lagoon

5.1.3.1. The dam across the lagoon, situated roughly halfway between the existing bridge and the entrance to the lagoon, was completed in early 1978. It is a low dam consisting of a sand core and rock exterior, with the crest intended to be about 0.5 metres above mean high tide levels. In fact, the top of the dam is uneven, and some parts seem to be continuously below the level of the water on the seaward side, with the result that at half a dozen places sea water is flowing over the dam into the lagoon.

5.1.3.2. At the western end of the dam are concrete sluiceways which can be closed with crane-emplaced concrete gates. The sluiceways are currently open, resulting in continual salt water intrusion. There appears to be some uncertainty amongst those involved with the project as to the purpose of the sluiceways. The original dam designed by Sanders and Thomas Inc. did not include sluiceways, but was solid across the lagoon. The Benin authorities, however, decided they could not accept this as it would mean that shrimp larvae

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would not be able to enter the lagoon, ending the shrimping industry in the lagoon and lake (as had indeed been pointed out by the consultants). The terms of reference for the consultants' study were changed, therefore, to include the design of the sluiceways.

- 5.1.3.3. It appears that at this stage the sluiceways were not intended primarily to allow the floodwaters after the rains to escape to the sea and prevent the sandbar closing across the mouth of the lagoon. It is instructive to examine what was contained in the ADB appraisal report of December 1974 about this :-

"4.09 The crest includes a 30m long sill, 2m deep which will be closed by removable concrete blocks of 4 tons each. The purpose of this design is to permit the Fisheries Department to exercise more direct control of the water flows between the sea and the lagoon. This is intended primarily for the cultivation of shrimp.....
(mission underlining)

4.10 It (the dam) has been designed after exhaustive hydraulic tests and is intended partially to block the tidal flow into the lagoon and also to permit the floodwater of the Ouémé River to flow over the dam into the sea.
(mission underlining)

- 5.1.3.4. This appears to indicate that it was not envisaged that the sandbar would permanently close the mouth of the lagoon if the concrete gates were left in sluiceways at the time of the flood of fresh water, i.e. if the dam was solid. This is supported by Mr. M. Bessalel, the U.S. based Director of Sanders and Thomas Inc. who happened to be in Cotonou at the time of the mission, and who wrote the mathematical model for the hydraulic studies.
- 5.1.3.5. If the presence of the dam with the sluiceways closed was responsible for the sandbar closing across the mouth of the lagoon in 1978, and building up so that it could not be breached by floodwaters even with the sluiceways open, then it seems that the concept and design of the structure as originally envisaged is open to question. It may be, however, that by using the gates as a device for controlling floodwater as well as controlling shrimp culture in the lagoon, the sandbar can be prevented from permanently blocking the mouth of the lagoon again.
- 5.1.3.6. Currently, the sluiceways are permanently open, and have been since August 1979 when the blocks were lifted out as part of the remedial programme to breach the sandbar with a bulldozer and to allow the floodwaters to rush through the sluices and sandbar. The crane that is included in the project as the lifting device has been broken down since it was handed over, and currently the Direction des Pêches does not have any means to manipulate the blocks.
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- 5.1.3.7. As the sluices have been open for a full dry season (when water levels in the lagoon and lake are low), the dam is currently ineffective as a salt water intrusion device. The mission saw sea water racing through the sluiceways into the lagoon.
- 5.1.3.8. The sandbar has crept across the mouth of the lagoon since it was breached mechanically, but so far this dry season it has not closed the mouth. There is currently a narrow but deep gap between the sandbar and the reinforced bank of the lagoon.
- 5.1.3.9. The economic and ecological impact of the dam and how it has been used to date is discussed in Section 5.5.

5.2. Consultant studies

- 5.2.1. Mr. Gondou, of Service des Etudes, T.P. informed the mission that the first studies into the problems caused by the new port at Cotonou and the need for a new bridge were carried out in 1965/6 by BCEOM. Subsequently there was another study in 1969 by a German firm. Both of these studies were feasibility studies looking at various options for the bridge crossings and the need for a dam across the lagoon. They helped to reduce the field of work for Sanders and Thomas Inc.
- 5.2.2. The first Sanders and Thomas Inc. study was in 1970. It was an economic and technical feasibility study, financed by USAID's bilateral programme with Benin (then Dahomey).
- 5.2.3. This study was finished in May 1972, and went almost straight into the detailed engineering design. There was very little delay between the two stages because USAID was involved at both stages and ADB was asked during the course of the feasibility studies to assist with final design, and ultimately financing of the project. It appears that there was good co-ordination at this stage.
- 5.2.4. The contract for Sanders and Thomas' final design study and preparation of bid documents was signed in September 1972 and was due to last for 12 months from the opening of the letter of credit, which was in November 1972. The final report, however, was not presented until towards the end of 1974. The mission was anxious to try to establish the reasons for this delay, but was not entirely successful. The Benin authorities were only able to recall the considerable problems and delays which occurred after the study was complete, while the representatives of Sanders and Thomas Inc. could recall certain matters, without specifying the time delay involved. These were :-
 - a) after the Phase I report, the Benin authorities requested an amendment to the terms of reference to include the design of sluiceways to allow the passage of shrimp larvae into the lagoon ;

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- b) in order to validate the mathematical model of the hydraulics of the lagoon, two sets of data were needed, dry season and wet season : this was not fully appreciated when planning the study ;
- c) the borings for the foundations could only be done during the dry season.

5.2.5. As far as supervision of the study by the Benin authorities is concerned, there were no problems, according to the officials of Service des Etudes, T.P. They do not feel that it is necessary to have a steering committee which meets regularly to review the work of consultants, but prefer to give the consultants a certain amount of freedom to pursue the study as they wish. Where the consultant has a proposal to make, or is having difficulties, then he should request a meeting with the relevant persons at Service des Etudes, who can involve any other people he feels necessary.

5.2.6. There were no other comments on the Sanders and Thomas Inc. study.

5.3. Delays in the Execution of the Projects

- 5.3.1. The ADB appraisal mission for the renovations to the existing bridge and for the dam produced its report in December 1974, and a loan of UA 4.0 m was subsequently approved in January 1975. USAID approved a loan of \$ 10.9 m (= UA 9.01 m) in September 1974.
- 5.3.2. The first tenders for the sub-projects were issued in May 1975, with replies due in August 1975. For the construction of the new bridge, however, no tenders were received. Because this part of the project was USAID funded, a US contractor had to be found. It was necessary, therefore to re-tender for the bridge.
- 5.3.3. The second tender for the new bridge produced one response from Nello Teer. According to Mr. Gondou, Service des Etudes, T.P. this bid was for \$ 18 m which was considerably higher than the estimated price of approximately \$ 12 m. It was necessary, therefore to try and reduce the cost of the project to meet the funds available, but the full \$ 6 m gap could not be closed in this way, so the Benin Government has had to increase its counter-part contribution considerably. This is discussed further below in paragraph 5.4.
- 5.3.4. The result of this was that contracts for the construction of the new bridge, and for the renovations to the existing bridge and the construction of the dam were delayed until 1976.

5.4. Costs of the Project

- 5.4.1. The mission was able to have a meeting with Mr. A. Océni, Directeur, Département Dette Publique, Caisse Autonome des Amortissements, who was able to provide a summary of the current financial position with regard to the ADB part of the project. This is summarised in Table 1.

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Table 1. Summary of Forecasts and Actual Costs, Renovations to Existing Bridge and Dam

	<u>Initial Cost Forecast (F/CFA m)</u>	<u>Latest Est./ Actual (F/CFA m)</u>	<u>Difference</u>	
			<u>(F/CFA m)</u>	<u>%</u>
Dam	949.5	986.4	+ 36.9	+ 4
Renovations to Existing bridge	338.8	575.0	+ 236.2	+ 70
Total	1,288.3	1,561.4	+ 273.1	+ 21

5.4.2. The reason given for the escalation in the cost of the bridge renovation is that work did not start until October 1979, after the new bridge had been opened. The appraisal report provided for 4 years inflation at 12% p.a. on the base (1975) price, which was not adequate.

5.4.3. As far as the financing of the ADB project is concerned, Mr. Océni provided the mission with the following figures :-

Table 2. Summary of Financing, Initially Forecast and Current Position.

	<u>Initial Financing (F/CFA m)</u>	<u>Current Position (F/CFA m)</u>	<u>Difference (F/CFA m)</u>
ADB	1,112.0	1,112.0	-
Benin Government	176.3	449.4	+ 273.1
Total	1,288.3	1,561.4	+ 273.1

5.4.4. The ADB component of F/CFA 1,112.0 m (= UA 4.0 m) was intended to finance all the foreign exchange costs of the project plus half the local costs, while the Benin Government paid the other half of the local costs. The ADB loan is fixed, and the C.A.A. did not expect to be successful with a request for a supplementary loan.

5.4.5. As far as the USAID financed part of the project is concerned, ie. the new bridge, Mr. Océni was able to provide only less complete information. The original USAID loan was for \$ 10.9 m. The original estimated Benin Government contribution (after the Nello Teer tender was received) was F/CFA 1,128.7 m. To date, of this, C.A.A. has disbursed F/CFA 1,034 m. Additional amounts which Mr. Océni said would have to be paid by the Benin Government are :-

	<u>(F/CFA m)</u>
Balance of original estimate	94.4
Price revisions known to date	166.7
Additional works	<u>15.0</u>
	276.1

Mr. Océni anticipated that some further price revisions would be presented to the Benin Government for payment. It was known that USAID would not increase its loan. The Benin Government contribution already known is F/CFA 1,310 m (approximately \$ 6.2 m at F/CFA 210 = \$ 1).

5.5. Socio-Economic Impact of the Project

5.5.1. The New Bridge

5.5.1.1. It is not possible at the moment to assess the socio-economic impact of the bridge, for the following reasons :-

- a) the bridge has only been opened to traffic in both directions since October 1979, which is too short a time for its effect to be felt ;
- b) currently, it is the only bridge across the lagoon while the existing bridge is being renovated, so that all traffic crossing the lagoon is diverted to it ;
- c) there are no adequate statistics available on the extent of international traffic currently passing through Cotonou, which is one of intended beneficiaries from improved communication presented by the bridge.

5.5.1.2. Currently, the bridge is heavily used, particularly at peak times. Cotonou has expanded since the bridge was originally planned, and the new bridge is now in a populated area. This is one reason for the consideration currently being given to the construction of a third bridge and associated roads which would allow international through traffic to by-pass Cotonou.

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5.5.2. Renovations to the existing bridge

- 5.5.2.2. As work is still in progress on this sub-project, it is not possible to assess its socio-economic impact. The bridge is centrally located in Cotonou and carries the rail traffic to and from the port to the Sonacop petroleum product depot, and to Porto Novo.
- 5.5.2.2. As the bridge was in danger of collapsing unless the renovations planned were carried out, it seems likely that the impact of the renewed and strengthened bridge will be positive.

5.5.3. The dam across the mouth of the lagoon

- 5.5.3.1. The socio-economic impact of the dam across the lagoon is fairly complex, as conditions have changed several times since the dam was completed. The following paragraphs outline briefly what the situation was before the dam was constructed, and what has happened since.
- 5.5.3.2. Before the new port at Cotonou was built, there was a fairly balanced cycle which created and maintained conditions in the lagoon and Lake Nokoué which were favourable to fish production. During the dry season, the mouth of the lagoon was blocked by a sand bar which prevented sea water intruding into the lagoon when water levels in the lake and lagoon were low. During the rainy season, floodwaters from the Ouémé River broke through the sand bar, allowing the lake and the lagoon to purge itself while at the same time recharge the waters with nutrients from the watershed. Salinity remained low at about 4 parts per 1000.
- 5.5.3.3. The construction of the new harbour to the west of the mouth of the lagoon appears to have changed the coastal currents so that the sand bar no longer closed the mouth of the lagoon during the dry season. This meant that it was open to the sea all the time. As a result, salinity in the lake increased substantially, to as high as 34 parts per 1000 in some parts. There was an invasion of wood borers which began destroying the brush wood fish traps ("acadjas") and fishermen's boats. Fish production dropped rapidly from more than 15,000 tonnes in 1961 to 2,200 tonnes in 1970.
- 5.5.3.4. The dam was intended to enable reduction of salinity levels to about 4 parts per 1000 by preventing salt water intrusion. In fact, what happened was that, as soon as the dam was completed in early 1978, the sand bar closed once again over the mouth of the lagoon. The reasons for this are not clear. When the flood waters came down during the rainy season, they were unable to breach the sandbar, which built itself to a level that could only be breached by mechanical means. At this time the concrete sluice gates were in position, but their role in the failure of the floodwaters to break the sand bar is still uncertain (see above paragraphs 5.1.3.3. to 5.1.3.6.)

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5.5.3.5. The results of the closure of the lagoon by the sand bar were as follows :-

- a) the dam was rendered redundant as a salt water intrusion barrage ;
- b) salinity levels dropped to below 4 parts per 1000, according to Mr. Fagbouhoun, Directeur des Pêches ;
- c) fish production increased substantially, and the area of "acadjas" increased from 150 ha to 350 ha, according to Mr. Fagbouhoun ;
- d) the shrimp catch was substantially reduced, because the larvae were not enable to enter the lagoon ;
- e) because septic tank pump trucks were discharging their material into the lagoon, which had become a stagnant, blind arm of the lake, a significant health hazard was created.

5.5.3.6. In August 1979, because of the problems caused by the situation described above, the concrete gates were removed, and the sand bar was breached using bulldozers. Since then, the lagoon has remained open to the sea, because the crane for lifting the concrete gates in and out of the sluiceways has been broken down.

5.5.3.7. The results of this have been :-

- a) the dam has not operated as a salt water intrusion barrage ;
- b) salinity levels have risen again as sea water has entered the lagoon and the lake, from 12 to 25 parts per 1000, for example, according to Mr. Fagbouhoun ;
- c) fishing production has dropped again, according to Mr. Fagbouhoun, as fish species requiring relatively fresh water found conditions intolerable, and the area of "acadjas" has fallen significantly ;
- d) the shrimp industry has picked up again ;
- e) partly because the lagoon is no longer a blind arm of the lake, and partly because depositing septic tank material in the lagoon has been stopped, the health hazard has been removed.

5.5.3.8. Mr. Fagbouhoun described the above as two phases in monitoring the effect of the dam, the first with the sluiceways closed, the second with them open. The third phase should now be to try various combinations and levels of the blocks to see how they affected salinity and water control. Unfortunately, Direction des Pêches does not have an operational means of manipulating the gates because the crane is broken down.

- 5.5.3.9. Direction des Pêches is monitoring the salinity levels, fish type and quality of catch, activity of wood borers, on a weekly basis at 6 monitoring stations in the lake, corresponding closely to the 6 monitoring stations used by Sanders and Thomas.
- 5.5.3.10. The effectiveness of the dam as a salt water intrusion barrier when the mouth of the lagoon is open and the sluiceways are used as intended still has to be tested. Mr. Fagbouhoun expressed concern that currently sea water was flowing over the top of the dam at several points.
- 5.5.3.11. In summary, the mission concluded that the dam is not serving the purpose for which it was intended and that therefore its socio-economic impact so far has fallen well short of that foreseen in the Sanders and Thomas study and in the appraisal report as far as the effect on salinity levels and fish production is concerned.
- 5.5.3.12. On the positive side, the dam has helped, even with the sluiceways open, to reduce the tidal currents in the lagoon, and thus reduce erosion and scour around the piles of the bridges, which was one of the original purposes of the dam.

5.6. Fishing Development Projects in Lake Nokué

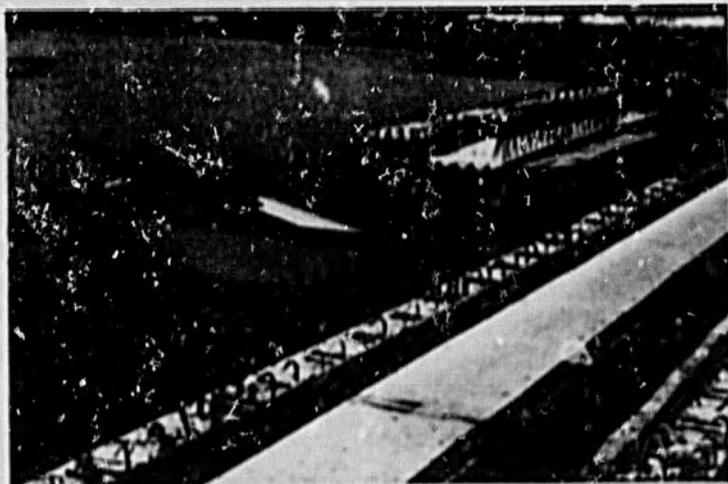
- 5.6.1. Despite the problems set out above, a pilot project for the development of fish farms in the lake, using areas bounded by nets, is going ahead. This is funded by E.D.F. The fish it is intended to use for the pilot project are able to tolerate salinity levels of 10 : 1000. It will be necessary to reduce salinity below current levels for this project.
- 5.6.2. Mr. Fagbouhoun noted that this pilot project would have to be measured against the productivity of the "acadja" system of fishing, which had proved very effective prior to the problems of salt water intrusion and wood borers.

5.7. Conclusion

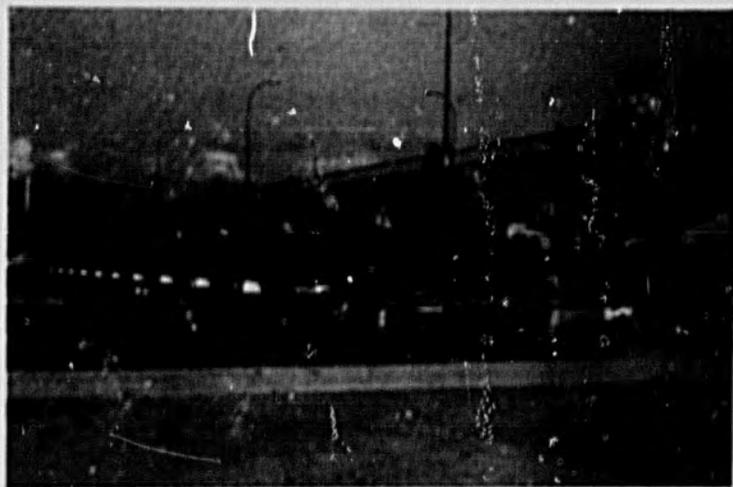
- 5.7.1. This major and complex project has taken ten years to achieve from the time of the Sanders and Thomas feasibility study, and experienced some delays, particularly at the time of tending. Construction has generally gone well, particularly on the ADB financed portion, where work on the existing bridge is ahead of schedule.
- 5.7.2. There is, however, a major problem with the operation of the dam which, as a result, is not having the intended impact. The Bank needs to determine what remedial action is required.

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BENIN: COTONOU BRIDGES AND DAM
BENIN: PONTS ET BARRAGES, COTONOU



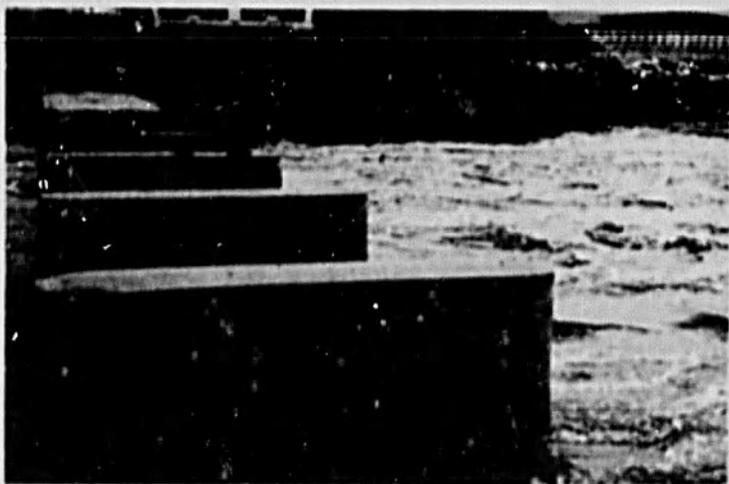
Repair of existing bridge.
Réfection du pont actuel.



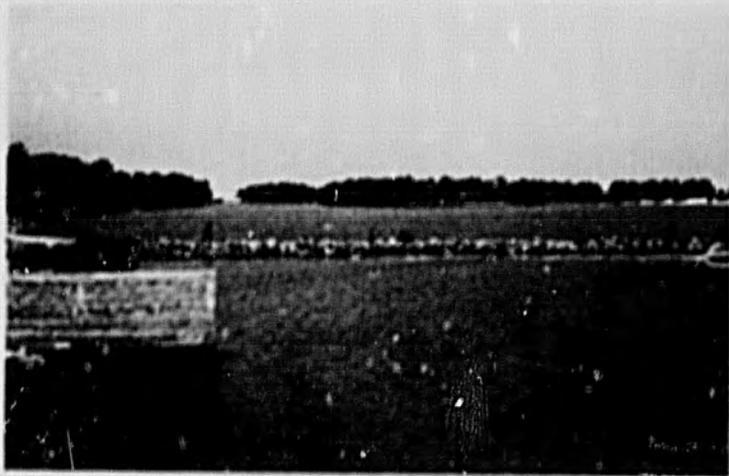
New Bridge.
Nouveau pont.

BENIN: COTONOU BRIDGES AND DAM

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Seawater entering lagoon through the open sluices.
L'eau de mer entre dans la lagune par les écluses
ouvertes.



Dam across the lagoon.
Barrage sur la lagune.

SUMMARY REPORT OF JOINT EVALUATION COMMITTEE

MISSION TO ZAIRE, APRIL 29-30, 1980

1. Project

1.1. This project consists of the construction of four bridges across the Bombo, Lufimi, Kwango and Wamba Rivers, at points 100, 140, 180 and 240 km respectively east of Kinshasa along the Route Nationale N° 1 from Kinshasa to Kenge towards Kikwit.

2. Purpose of the Mission

2.1 The purpose of the mission, which because of the time available to the consultant was extremely short, was as follows :-

2.1.1. To discuss with Office des Routes the study carried out by IECO for the four bridges.

2.1.2. To discuss implementation of the project and subsequent maintenance.

2.1.3. To visit the project sites.

2.1.4. To obtain any immediately information on the impact of the bridges.

3. Composition of the Mission

3.1. The mission was composed of Mr. J. Speed, consultant to the Joint Evaluation Committee (JEC). It was intended that Mr. Speed would be accompanied by an officer of ADB, but this did not prove possible.

4. Programme of the Mission

4.1. 28 April : 19.30 Arrived Kinshasa, where the mission was met by Cit. T-T. Tutuana, Chef du Protocole, Direction Générale de l'Office des Routes. Cit. Tutuana informed the mission of the programmes that had been arranged.

4.2. 29 April : 08.00-16.00 Visit to Bombo, Lufimi and Kwango Bridges with Cit. M. Tshitenge, Chef de la Cellule Economique, Office des Routes, Mr. P. Cuigard, Conseiller Economique, and Mr. D. Dembowski, USAID/Kinshasa. It was decided en route that the Wamba Bridge was too far and that the extra time involved in travelling the additional 120 km required was not justified.

4.3. 30 April : 08.15-09.00 Meeting with Cit. M. Londale, Administrateur Directeur Technique, Office des Routes, who was acting Directeur Général in the absence of Mr. J. Audoin who was on mission.

09.30-10.00 Meeting with Cit. K. Mudimbi, Directeur, Chef du Département Travaux Neufs, Office des Routes, and Cit. M. Tshitenge.

10.00 Departure for the airport.

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- 4.4. The mission wishes to record that the organisation of the programme for this short mission and the state of preparedness of the officials involved to provide information to the mission was excellent. As a result the mission achieved more than had been anticipated. The USAID office in Kinshasa is also to be thanked for its assistance in informing the Office des Routes of the purpose of the mission.

5. Findings of the Mission

5.1. Status of the Project

5.1.1. Bombo River Bridge

- 5.1.1.1. The Bombo River Bridge is situated 100 km east of Kinshasa at the bottom of a deep valley which is almost a ravine. It is 60 m long. Work started in April 1974, and was completed in 1975. The bridge was finally handed over in early 1978.
- 5.1.1.2. Before this bridge there had been a Bailey bridge at the same spot, the piles of which are adjacent to the new bridge.
- 5.1.1.3. The condition of the bridge appeared good, although on the side furthest from Kinshasa, there was evidence of damage caused by trucks unable to negotiate the tight turn onto the bridge. Because of the steepness of the approach roads down the sides of the hills at either end of the bridge, there is no alternative to these tight turns onto the bridge.

5.1.2. Lufimi River Bridge

- 5.1.2.1. At 34 metres, this is the smallest of the four bridges. It crosses a small but deep stream that was full of flood water at the time of the mission. This bridge is 140 km from Kinshasa and like the Bombo River Bridge, replaced a Bailey bridge.
- 5.1.2.2. It was started and completed and handed over at the same time as the Bombo River Bridge.
- 5.1.2.3. The bridge and the approach roads appeared to be in good condition, except for some erosion on the left hand bank looking from the Kinshasa end. The maintenance brigade responsible was aware of the problem, and would be carrying out repairs during the dry season.

5.1.3. Kwango River Bridge

- 5.1.3.1. At 271 metres, this is the largest of the four bridges. It replaced a ferry across the Kwango River which is a large, wide, river, currently in full spate and carrying a lot of debris.
- 5.1.3.2. The bridge was completed in January 1976 after a construction period of 26 months, which was shorter than that anticipated in the contract.

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5.1.3.3. The bridge appears to be generally in good condition, although the roadway is showing signs of wear. At each end, there are metal joints which have become raised above the level of the roadway. It seems that some resurfacing will be needed during the next couple of years.

5.1.4. Wamba River Bridge

5.1.4.1. Although the mission did not see this bridge, it was able to obtain some information about it. It is 121 metres long, and was completed in September 1976. It also replaced a ferry across the Wamba River.

5.1.4.2. The mission was not able to obtain any information about its condition.

5.1.5. Costs of the Project

5.1.5.1. According to the figures available from Cit. Tshitenge, the cost of the project in Zaires was Z 2.036.800. Although the mission was not able to check this, this must constitute the local costs of the four bridges, to which must be added the foreign exchange costs financed by ADB.

5.1.6. Remainder of ADB Loan

5.1.6.1. The ADB provided UA 3.5 m for the project, made up of UA 2.5 m original loan plus UA 1.0 m supplementary to cover increases in costs due to the oil and other primary product price rises of the 1973/5 period.

5.1.6.2. When the final accounts for the four bridges had been paid, there remained a balance of UA 183,334. This has now been used for improvements to the access roads. Work was completed about a month ago, according to Cit. Mudimbi. The mission was informed of this after the site visit, and did not specifically identify the work done.

5.2. The Study by IECO

5.2.1. The only person that the mission met who knew anything about the IECO study was Cit. Londala. He said that generally Office des Routes was satisfied with the study, except that a programme of sub-surface borings was needed to supplement the study. This was carried out by the Public Works laboratory.

5.2.2. Generally, the representatives of Office des Routes felt that they were able to supervise and control the work of consultants adequately. Mr. Guigard noted that where a study was multi-laterally funded through an organisation such as ADB, the World Bank, EDF, where Office des Routes was responsible for the contract, there were generally no problems with supervision. When studies were financed bilaterally, with the contract directly between the donor and the consultant, Office des Routes found it was difficult to ensure adequate attention was given to its views. Since the mission, it has been learned from the ADB project file that there were supervision problems with this study. See the Status Review form.

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- 5.2.3. Cit. Londala emphasised that no matter how good the consultants were, Office des Routes had better knowledge of what the real problems were. It was essential, therefore, to supervise closely all consultancy studies. Office des Routes supervises studies by a mixture of steering committees and having the technicians of the Office follow the study.
- 5.2.4. It is now the policy of Office des Routes to have, where feasible and possible, one of its staff to join the consultancy team for training purposes. This has generally been successful where tried.
- 5.2.5. The same policy is being followed with regard to supervision of construction work.

5.3 The delay between the signing of the loan agreement and the signing of the construction and supervision contracts

- 5.3.1. Approximately 10 months and a year passed between the signing of the construction and supervision contracts in January and March 1974 respectively.
- 5.3.2. Cit. Londala did not think this was a long time, given that international tenders and negotiations with the contractor were involved.

5.4 Implementation

- 5.4.1. Cit. Londala stressed that this was a most successful project, that there were no implementation problems, and that, in fact, work was completed ahead of schedule. It was because of this positive experience with an ADB-financed bridge project that Office des Routes wished to use ADB financing for additional bridge projects. In 1975 the Inkizi bridge project was financed, currently the Louange and Louva Bridge projects are going ahead with ADB financing and Office des Routes wishes to involve ADB in additional bridges on the continuation of Route Nationale N° 1 from Kikwit to Mouji-Mayi, a distance of 704 km, scheduled for construction between 1980/81 and 1993.

5.5 Economic and Social Impact of the Bridges

5.5.1. The Kinshasa-Kenge-Kikwit Road

- 5.5.1.1. The economic impact of the bridges is a function of the importance of the road upon which they are situated. The road from Kinshasa to Kenge (271 km) and on to Kikwit (230 km) is Route Nationale N° 1 which stretches from Zaire's main port of Matadi to Lubumbashi, via Kinshasa, Kikwit and Idlofa. It is therefore one of the prime routes into the interior. In Zaire, where distances are so vast, good communications between the different regions are essential for integrated economic and social development.
- 5.5.1.2. Before considering the level of activity along the road, it is necessary to consider the condition of the road along which the

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four bridges are situated. The mission was able to observe the first 180 km from Kinshasa to the Kwango River bridge. This road is generally in good condition and is well maintained. Cit. Tshitenga said that particular efforts were made to maintain this road in good condition because of its priority as one of the main routes into Kinshasa.

- 5.5.1.3. The mission observed that several stretches of the road had been resurfaced recently by brigades of Office des Routes. Between the Lufimi River bridge and the Kwango River bridge, there is a fairly long stretch of approximately 10-15 km which is currently being reconstructed. Work has been going on this for a year, currently problems are being experienced with maintenance of plant and equipment and in obtaining bitumen. There is a short stretch which shows the condition into which the road had fallen, which is very poor. The asphalt wearing surface had collapsed to less than a vehicle width in certain places. It is significant, however, that Office des Routes is currently taking action to restore the road.
- 5.5.1.4. The mission was not able to observe the condition of the 90 km between the Kwango River bridge and Kenge. It is reported as being in good condition. Between Kenge and Kikwit a new bitumen road has been constructed with EDF financing, removing 12 ferries. This means that with the ferries removed from the Kwango and Wamba Rivers, a total of 14 ferries between Kinshasa and Kikwit have been removed.
- 5.5.1.5. Thus between Kinshasa and Kikwit there is now 500 km of bitumen road in good condition.
- 5.5.1.6. As far as the continuation of the road beyond Kikwit is concerned, detailed economic studies have been carried out, financed by IDA for the 704 km from Kikwit to Mbuji-Mayi via Tshikapa and Kananga. Office des Routes is currently seeking finance for the various sections of the road, and, as noted above, is seeking ADB support for some of the bridges that are required.

5.5.2. Maintenance of the Road and Bridges

- 5.5.2.1. Maintenance of roads and bridges is the responsibility of brigades in the Office des Routes. These brigades are organized on a regional basis. Currently the World Bank is supporting road maintenance through the 4th Highway Project, which includes the supply of equipment. Otherwise, maintenance expenditure is met from the national budget.
- 5.5.2.2. The mission visited a Brigade headquarters at Menicao, about 60 km outside Kinshasa. It met Cit. T. Landu, Chef du Personnel, and Cit. N. Mukendi, Conducteur des Travaux. This headquarters is responsible for the maintenance of 220 km of bitumen road and 600 km of dirt road as well as both the Bombo and Lufimi River bridges. It has five depots under it. Office des Routes is responsible for Routes Nationales and secondary roads, but not for local roads, which are the responsibility of local authorities. Their ability to maintain the local roads is very limited.

5.5.2.3. Cit. Mukendi informed the mission that very little maintenance work had been needed on the Bombo and Lufimi River bridges to date, although they were aware of the erosion on one bank of the Lufimi River bridge, and would be shortly taking action to remedy it.

5.5.3. The Economic Significance of the Road and the Bridges

5.5.3.1. The road from Kinshasa to Kenge and Kikwit is the main artery from the Bandundu region of Zaire to Kinshasa. This region, together with the Bas-Zaire region, west of Kinshasa, towards the port of Matadi, is the most important source of food for the 3 million inhabitants of Kinshasa. The area between Kinshasa and the Lufimi River is sparsely populated because the soil is sandy and poor, but the central and eastern Bandundu region (Kenge-Masi-Manimba-Kikwit-Idiofa) are densely populated and key areas of agricultural production, in particular the primary staple food of manioc and maize and groundnuts.

5.5.3.2. A quantitative assessment of the economic importance of the road was carried out in June 1979, when, as part of the preliminary studies for a USAID-funded agricultural credit project in the Kwilu sub-region of the Bandundu, a detailed origin and destination survey was carried out on the Kinshasa-Kikwit road by USAID and Office des Routes. This was a unique event, there is no regular programme of traffic surveys in Zaire.

5.5.3.3. The objective of the survey was to measure the volume and origin of agricultural produce coming from the Bandundu region to Kinshasa along the Kikwit-Kinshasa road. It was carried out continuously over a seven day period between the 1st and 8th June at a survey point 75 km outside Kinshasa. The weight of produce was assessed by counting the number of sacks of a particular weight loaded on each vehicle. The following is a summary of the results :

- a) the volume of traffic surveyed averaged 230 vehicles per day, with an average load of 2.5 tonnes, (including empty vehicles);
- b) the flow of traffic in each direction was equal;
- c) the products transported to Kinshasa are essentially agricultural products as follows :

		<u>%</u>
Manioc	246 tonnes/day	84
Maize	17 tonnes/day	6
Groundnuts	15 tonnes/day	5
Other (including sheep, goats, pigs, non-agricultural items)	16 tonnes/day	5
TOTAL	294 tonnes/day	100

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- d) apart from agricultural products, the return of empty petrol drums to be filled is important;
 - e) the four major centres of supply for the road transporters are Masi-Manimba, Bulungu, Kikwit and Idiofa;
 - f) the number of passengers travelling in the two directions is different : from Kinshasa to Kikwit, an average of 14 passengers per vehicle was enumerated, with two peaks approaching 20 persons per vehicle on Saturday and Wednesday, in the reverse direction the average number was 8. There are two possible reasons for this, firstly that the vehicles travelling to Kinshasa have full loads of produce, with little room for passengers, secondly that many vehicles travelling to Kinshasa do so at night when fewer passengers are travelling;
 - g) the traffic travelling from Kikwit to Kinshasa remains at a fairly constant level throughout the week, while the traffic in the other direction has two peaks, on Saturday and on Wednesday: it is not clear from the survey why this is so;
 - h) the hourly density of traffic travelling to Kinshasa reaches the capital in two peaks, one towards 05.00 hours and the other towards 13.00 hours: the former involves driving all night to reach the early morning markets, the latter involves starting early in the morning.
- 5.5.3.4. The survey did not consider in detail the goods being transported out of Kinshasa into the interior. Some observations were made, however. Generally, trucks travelling in this direction were carrying loads of mixed products and manufactured goods. An important part of the traffic carries petrol in drums to the Bandundu region. Petrol supplies outside Kinshasa are uncertain and a large part of what is available is distributed in this way rather than by tanker.
- 5.5.3.5. The importance of the bridges in relation to the above traffic is that virtually all the vehicles enumerated had to cross the Bombo and Lufimi River bridges, roughly 80% the Kwango River bridge, and somewhat less than 80% the Wamba River bridge.
- 5.5.3.6. Secondly, the bridge over the Kwango River has eliminated a serious bottleneck in the transport of produce to Kinshasa and manufactured goods in the other direction. The former ferry was unable to cope with the volume of traffic, so that considerable delays of up to a week, according to the representatives of Office des Routes, were experienced even when the ferry was operational. As it was subject to breakdown, delays could be longer.
- 5.5.3.7. The situation led to several things. First, and positively, settlements grew up around the crossing on either bank to

provide transporters and travellers with food, accommodation and entertainment. These settlements have remained after the bridge was built. Secondly, and negatively, problems arose over the crossing priority for the military and government administration. Thirdly, and inevitably, people tried to buy priority. Thus the negative problems have been removed, while the positive effect has remained, albeit perhaps on a slightly reduced scale.

- 5.5.3.8. The mission noted that a very high percentage of the traffic along the road consists of heavy lorries. This is a function of two things. First, most of the traffic is long distance as has been described. Secondly, because of the high cost and scarcity of petrol, and because of the scarcity of spare parts in Zaire, the vehicle fleet in Zaire as measured by the number of insurances has declined considerably. Private vehicles have been affected in particular.
- 5.5.3.9. The constraints on motor transport in the country are severe. The mission noted that along the road there were many vehicles that had broken down. According to the representatives of Office des Routes, they and their passengers would probably wait for a couple of days while someone tried to find the spare part required to fix it.
- 5.5.3.10. These constraints must reduce traffic levels considerably below what they otherwise would be. This is partly evidenced by the degree of overload observed by the mission (which tends to exacerbate the breakdown problem).

5.5.4. Related Development Projects

- 5.5.4.1. The mission did not have sufficient time to obtain comprehensive information on development projects in the zone of influence of the road (which is very large). It seems, however, that there are several integrated rural development projects, including feeder roads to improve access to the main routes. A large project involving agricultural credit for agricultural equipment and spare parts, financed by USAID is going forward in the Idiofa and Bulungu areas of the Kwilu sub-region of the Bandundu region.
- 5.5.4.2. The mission was informed that the structure of agricultural prices does not encourage production. Producer prices are fixed, and are relatively low. Consumer prices are also supposed to be fixed, but are not effectively controlled, so that the intermediary traders benefit.

5.5.5. The Significance of ADB as a Financing Agency in the Transport Section of Zaire

- 5.5.5.1. The mission asked Office des Routes about the significance of ADB as a financing agency for roads and related projects. They replied that, compared to the World Bank and the European Development Fund, the ADB's contribution was small in absolute terms. The individual projects were important nonetheless.

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5.5.5.2. Office des Routes seems to have good working relationships with ADB, and no particular problems in progressing projects compared with other financing agencies. The biggest difficulty is in communication as ADB does not have an office in Kinshasa. Letters take several weeks.

5.6 Conclusion

5.6.1. The overall impression obtained by the mission was that the project has progressed fairly smoothly through its various stages with only relatively minor delays, and that its impact in improving communications in Zaire has been considerable. This seems to have been a successful project, is seen to be such by the Zaire authorities, and is currently being used as a model for future projects.

ZAIRE: KWANGO, WAMBA, BOMBO, LUFIMI RIVER BRIDGES

ZAIRE: PONTS SUR LES RIVIERES KWANGO, WAMBA, BOMBO, LUFIMI



Kwango Bridge.
Pont Kwango.



Settlement at Kwango Bridge.
Village au Pont Kwango.

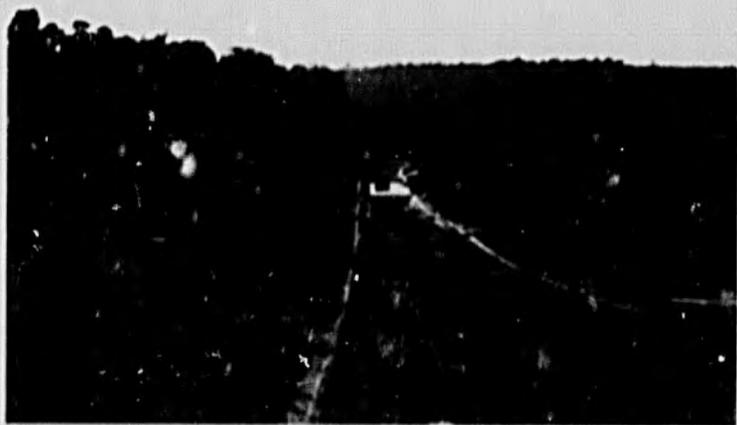
ZAIRE: KWANGO, WAMBA, BAMBO, LUFIMI RIVER BRIDGES

ZAIRE: PONTS SUR LES RIVIERES KWANGO, WAMBA, BOMBO, LUFIMI



Bombo Bridge.

Pont Bombo.



Lufimi Bridge.

Pont Lufimi.

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