INITIAL EVALUATION

ARGICULTURAL.MARKETING DEVELOPMENT PROJECT

660-0098

by

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EXECUTIVE SUMMARY

I. PROJECT TITLE: Agricultural Marketing Development

II. PROJECT NUMBER: 660-0098

III. PROJECT DESCRIPTION AND PURPOSE:

The purpose of this project is to reduce the economic distance between the food crop producers in central Bandundu and commercial markets. The project consists of four related interventions:

A. Assistance to the Waterways Administration (Regie des Voies Fluviales (RVF) to survey, mark, and regularly maintain the region's waterways;

B. The improvement of the feeder road system, in particular through river crossings and slopes and the location of surfacing materials;

C. Assistance to the private sector to broaden the base of and to increase river cargo transport; and,

D. The establishment of performance and impact monitoring systems.

The initial USAID contribution to the ten year life-of-the-project cost is $8,000,000. The Government of Zaire will contribute the equivalent of $5,000,000. The project is designed to allow its frequent periodic re-design and is closely linked to the companion Area Food and Market Development Project (660-0102).

IV. PURPOSE OF THE EVALUATION:

This initial evaluation of the project has several purposes. First, it is a process evaluation (early project review) to determine if appropriate elements are in place for effective and timely project implementation. Second, the evaluation will examine any new opportunities for attaining project objectives that may have arisen since the project was originally designed, and determine whether these opportunities for action are within the Project's capacities. Third, the evaluation will make recommendations for any necessary amendment to the Project Paper.

V. EVALUATION METHODOLOGY:

The evaluation team was composed of a team leader, an information specialist, and an engineer. Discussions were held with USAID Mission staff and Office des Routes, and with representatives of other recipient organizations. The team leader and engineer undertook a brief field trip to two sites on the outskirts of Kinshasa to inspect the progress and quality of Office des Routes' sealed cement stabilization road construction. It was not considered necessary to visit project sites in Bosobe or Idiofa.

VI. FINDINGS:

A. Project design should be an on-going activity in projects such as 098 to the extent that they are experimental in nature or being implemented in a rapidly changing governmental and private sector situation.

B. Implementation of the project has begun in a timely fashion despite the delay in the establishment of the Project Management and Monitoring unit (PMMU). Mission staff have begun work on a number of project elements, in particular in the water transport component. Good office space has been located and renovated for the contractor.

C. Liaison between Mission staff responsible for projects in Bandundu exists but could be strengthened.

D. Host country participation in project monitoring and evaluation is important but difficult to achieve where the capacity to do so is lacking. Special provisions need to be built into the project, including short-term technical assistance and equipment, in order to develop this capacity in in-country research institutions.

VII. LESSONS LEARNED

A. It is difficult to lessen the time gap between project conceptualization and implementation, particularly to the extent that the Mission has to rely on services outside of its control. The sure way of keeping up the design momentum, namely, Mission implementation, enables early project implementation but should be resisted to the extent that first priority must be given to the procurement of the technical assistance team and the required commodities.

B. The gap between the design and the arrival of the technical assistance team could be lessened, in some circumstances, if the Handbook suggestions were followed and the design team were asked to draw up a draft PIO/T and if the designated project officer were involved in the preparation of the Project Paper and the draft PIO/T. Where new staff members are to be recruited for project management, the recruitment should take place in time to allow this participation.

VIII. RECOMMENDATIONS

The recommendations for Project 660-0098 are divided into two categories: those relating to Project management and to the specific project elements which require USAID and/or PMMU action or follow-up and those which are for the guidance of the PMMU when it is established. The latter recommendations are contained in the body of the Evaluation Report and its Annexes and will not be summarised here.

Project Management

1. Project re-design should be an on-going activity with an interim project evaluation and assessment of future project assistance requirements taking place no later than July, 1987. Futher evaluations and assistance appraisals should be scheduled no less than every 18 to 24 months after that date.

2. Disbursements scheduled in the Project Paper for FY88 should be reprogrammed as required during the first phase. The budget breakdown between technical assistance, commodities, and contracts may also need revision. The budget revision should be undertaken by the PMMU after it has completed its initial project assessment.

3. A formal acconting system should be established and an audit of disbursements to date should be undertaken before the arrival of the technical assistance team.

4. An adequate filing system containing all relevant information pertaining to the project to date needs to be established for the AMMU.

5. Separate accounts must be kept of project and non-project disbursements from the 098 budget. All local costs arising from Mission use of office space in the Sedec building should, if possible, be financed out of a direct allocation of counterpart funds.

6. There should be closer liaison between Mission staff responsible for projects in the Bandundu region and in particular between those responsible for projects 098 and 102.

Road Transportation

1. The slope stabilization experiments should be expanded to test a range of stabilization techniques and should be undertaken in collaboration with Office des Routes, unless some preferable alternative is found. An outline of an approach to this project element should be drawn up by the PMMU in consultation with Office des Routes.

2. The research into sources of surfacing materials and aggregates should proceed.

3. The bridge and bridge access component should be undertaken in direct collaboration with Office des Routes, as well as by the subcontracting envisaged in the Project Paper or through Cooperative Agreements, OPGs or contracts directly with local private organizations which are covered in the Project Paper Amendment.

4. On the basis of the studies and additional areas for consideration recommended in this Evaluation Report, consideration should be given to expanding the scope of the road component. Additional technical assistance and other requirements should be identified. Non-local recruitment of the PMMU road engineer should be authorized if necessary.

5. Formal consultations should occur between projects 098 and 102 on needs identification and site selection at least: (i) before each dry season and again before the main agricultural campaign, and (ii) in the course of major re-design activities.

6. Informal consultations should occur regularly between all USAID-funded physical infrastructure projects in Bandundu, and 098 road transportation activities should be closely coordinated with those of other bilateral and multilateral donors in the region.

River Transportation

1. First priority in assistance to Regie des Voies Fluviales should be placed on the rehabilitation of the boatyard and the procurement of commodities for the river navigation component. The hydrography study should be postponed until 1987, as requested by RVF.

2. Non-local recruitment of the shop foreman should re-authorized if necessary.

3. The need for the PMMU locally recruited river engineer should be reassessed and consideration be given for the replacement of this position by short-term technical assistance.

4. The construction of metal boats for river transportation by DPP should proceed as recommended in this Evaluation Report.

5. Consideration should be given to expanding the scope of this component to include assembly and berthing facilities and maintenance services for marine engines.

Information

1. The data collection components of 098 and 102 should be treated as complementary in regard to evaluating the broader socio-economic effects the projects are expected to have on the regional development of Bandundu. Separate data collection systems should be established to monitor project performance and short-term effects.

2. 098 and 102 should jointly design and support a series of community level and other surveys during the course of the projects. Data on village level conditions and benefits derived from project interventions will be required to evaluate impact on beneficiaries and the equity of the distribution of those benefits.

3. All data collection must be coordinated with that of the UNDP-funded Bandundu agricultural statistics project, with other on-going work of the various sections of the Department of Agricutlure, of CEPLANUT, of CODAIK and others interested in the collection of data in the area.

4. Contracting which combines short-term technical advisors with local research groups should be attempted by 098 and 102 to collect and analyze data needed for impact monitoring and evaluation. Information specialists on both projects should also be used as advisors. I.R.E.S. should be included as a possible source of such data collection and analysis services.

5. If the minimalist approach to date collection is accepted a mini-computer is unnecessary for the projects. The projects should buy a number of IBM (or compatible) micro-computers with expanded data processing capacity. The machines should be installed in the project offices, both in the field and in Kinshasa, and in the in-country research groups with which the projects will contract for data services.

I. INTRODUCTION

This evaluation has taken place in advance of the arrival of the technical assistance team. It is thus a review and evaluation of the progress made in the implementation of the project since the signing of the Project Agreement on July 30, 1984. During the 20 months that have elapsed since that date, responsibility for its implementation has rested with the USAID Mission. During this period, changes have occurred which have ramifications for the design and re-design of this project. The evaluation has thus also concerned itself with an assessment of the need to modify, expand, or add to the original project components.

The Agricultural Marketing Development Project (660-0098) and the Area Food and Market Development Project (660-0102) were designed as complementary projects, having the same sphere of influence in central Bandundu. 098 was to put in place the transport infrastructure required for improving agricultural production and marketing in the region; 102 to increase the production and marketing of food crops and increase their regional processing. In this way it was envisaged that, as well as the direct benefit flowing to the rural population in the form of increased food consumption, income and mobility, there would be indirect benefits arising from the strengthening of the regional economy. Each project was to monitor it own performance and a joint monitoring system was to be established in order to evaluate their combined socio-economic impact. 098 was to create the capacity within Zaire to undertake the required studies.

II. PROJECT CONCEPT

The Agricultural Development Project (660-0098) was designed to reduce the economic distance between the food crop producers in central Bandundu and the commercial markets. In the course of the design effort, it became clear that a multi-modal transport approach would need to be adopted with emphasis being placed on transport infrastructure. Areas of need identified included the improvement of roads of agricultural interest, particularly with respect to waterway crossings and slopes, river navigability, the resurgence of small to medium size river transport, the accessibility of fuel, vehicular and engine maintenance services, and river assembly and berthing facilities.

Although the interrelations among these factors were recognized, not all of these needs were able to be addressed in the Project Paper. This was because, in some cases, too little was known to determine the correct implementation strategy; in others, for example, port and assembly facilities, management issues were unable to be resolved; and, in others, for example, fuel accessibility, significant changes in organizational performance would have been required. It was thus decided to initiate implementation in those areas in which design strategies had been determined and to build applied research and experimental components into the initial phase, whose outcome could guide subsequent stages of project implementation. Those elements without implementation strategies were included in the annexes to the Project Paper as potential components in future phases of the project.

The approach treats project design as a periodic activity nested within USAID's existing requirements for project documentation, review, and approval. It necessitates the continual monitoring and evaluation of project performance as the basis for decisions to continue, expand, modify, or eliminate on-going activities. It allows incorporation into the project of additional elements consistent with the goals of the project or already identified elements whose implementation has become timely or possible. The monitoring and evaluation component places project personnel in a position to improve project performance and so to better meet the needs of the recipient population. This approach - design, implementation, re-design, implementation, throughout the life of the project - also helps to reduce the delay between the initial conceptualization of the project and its commencement in the field.

In line with this approach, the project contains some standard physical intrastructure elements (bridges, metal boats, RVF boatyard equipment), some applied studies (road surfacing materials, hydrography), some experimental components (slope stablization, wooden boat design) and an important performance and impact monitoring component.

It was envisaged in the initial design that each element would be evaluated towards its completion date, with an interim project evaluation and appraisal of future project assistance requirements to be made in January 1988. However, by that time, some components will have been completed and so, in order not to lose the momentum of any project elements, it is now recommended that this evaluation begin no later than July 1987. Further evaluations and redesign activities should be scheduled at least every 18 to 24 months after that date.

Disbursements scheduled after FY88, in particular those of the road component, should be reprogrammed as required during the first phase. Following on decisions taken in response to recommendations contained in the body of the text, the budget breakdown between technical assistance, commodities, and contracts may also have to be changed. The budget should be revised by the PMMU after it has completed its initial project assessment.

III. CURRENT PROGRESS STATUS AND RECOMMENDATIONS

A. Project Management

Although it was envisaged in the Project Paper that the contract for the technical assistance team would be finalized by February 1985 and that the Project Management and Monitoring Unit (PMMU) be established by April 1985, no contract has yet been signed.

The Implementation Schedule in the Project Paper was optimistic, however slippages began to occur during the preparation of the PIO/T. The Request For Proposals (RFP) was not finalized until June 1, 1985, ten months after the signing of the Project Agreement. Subsequent delays arose both because REDSO was tardy in fulfilling its responsibilities and because of the need to request best and final offers from three of the six bidding firms. Since there seems to be fair agreement in the Mission as to the best proposal, the request for best and final offers may have been caused because the

criteria for the selection of the proposals were not carefully enough thought out in advance.* Throughout this process, time and quality of work were lost because of other demands on Mission staff time and because of a shortage of Direct Hire staff. Experienced staff members were too burdened to take on the management of the project and so a project officer had to be recruited. Although, at the time of the evaluation, the establishment of the PMMU was a year behind schedule, nevertheless the start up time for the project compares favorably with that of other similar projects in Africa.

There is little the mission can do about REDSO delays but certain changes could occur at the mission end to speed up the contracting of project technical assistance teams. The design team could be requested to draw up a draft PIO/T and the designated Project Officer could be involved at least in the administrative arrangements relating to the preparation of the Project Paper and directly in the preparation of the PIO/T. These suggestions are contained in Handbook 3. If the Project Officer is to be recruited for the project, this should occur early enough to allow this. If necessary, design funds should be used for the recruitment of the designated Project Officer during the design phase. Familiarity with the content of the Project Paper and with administrative matters relating to the preparation of the PIO/T would mean that the Project Officer did not have to learn on-the-job and should help to ensure that the RFP provides a clear basis for the selection criteria.

First priority in staff time and effort in the interregnum between the signing of the Project Agreement and the arrival of the contractor should be placed on getting the technical assistance team and commodities in place as speedily as possible. Second priority should then be given to the actual implementation of the project in the interim period by the Project Officer who cannot be expected to have the range of required expertise for successful implementation.

Despite the delay in the establishment of the PMMU, the implementation of many elements of the project is well under way. The attached Project Implementation Chart (Annex A), drawn up by the Project Officer, indicates the range of activities which have been undertaken by the Mission to date. During this period, arrangements for the procurement of commodities and of short-term technical assistance have been made in a timely and efficient manner. Good office space has been located for the PMMU and renovations are well designed. An optimistic estimate places the completion date at the end of April. This work has been overseen by the Mission engineer. A file of clerical staff applicants has been created. No work has been done on identifying housing for the contracting team.**

*(USAID footnote. REDSO was "tardy" because of scheduling conflicts and USAID/DEO believes that best and final offers are standard practice.)

**(USAID footnote. Under the terms of the institutional contract with Louis Berger International, LBI will field an administrative assistant sufficiently in advance of the rest of the team to make suitable housing arrangements.)

A number of issues arising from the use by the Mission of 098 project funds for Mission purposes are in need of clarification.

For the purposes of future 098 project audits, as well as for A.I.D. audits and inspections, non-project disbursements from the 098 budget, in both the local currency and in dollars, must be separately accounted. At present, Mission staff are occupying office space in the Sedec building. The rent for this space, the cost of the renovations, the equipment used, including the Wang microcomputer, furniture and supplies purchased for there and elsewhere, and secretarial services provided are all paid for from the 098 budget.

With the arrival of the technical assistance team, the question of the appropriateness of this will inevitably arise. Therefore, serious consideration must be given to alternatives to Mission use of 098 funds in this way. At a minimum, separate budgets and accounting systems must be established. Consideration could also be given to the financing of all local costs (rent, salaries, furnishings, supplies, etc.) out of a direct allocation of counterpart funds for USAID operating expenses. An audit of disbursements to date should be made before the arrival of the technical assistance team.*

The Project Officer has a dual role as Project Officer and office manager and could do with further support in the latter role. An adequate filing sytem needs to be established for the PMMU containing all the materials relevant to its work: basic documents and files, relevant trip reports, contacts lists, requests for funding, individuals and organizations interested in conducting trials of the wooden boats and subject files, for example, DPP documents and evaluations, and Hugh Papworth's memoranda. The maps contained in the original Project Paper should be found.

Although projects 098 and 102 were designed as complementary projects, there has been a tendency for the respective project officers to implement each project in vacuo. This has no doubt been exacerbated because responsibility for the projects lies in different Mission departments and the Project Officers are not located in the same building. In future, coordination should occur both within the Mission and between the respective technical assistance teams. The need for coordination between all USAID projects in the Bandundu has been recognized by the Mission which established a Bandundu Coordinating Committee, chaired by the Deputy Director, in January, 1984. This Committee has met twice since its establishment. Regular meetings of the Committee should be re-established once the technical assistance teams for both 098 and 102 are in place. Meanwhile there should be close collaboration between all Mission staff responsible for projects in Bandundu. Decisions taken by the various Project Officers could be sent on a for-your-information basis to other staff. Research findings, papers, and notices of de-briefings should be similarly circulated.

(*USAID footnote. USAID agrees that the budgets should be separated, but the phrase "Mission use" is misleading. 098 dollar funds have been used to pay the PSC 098 Project Manager, and to provide equipment (one Wang PC) to an office shared by the 098 Project Officer and other PSC's. Local currency provided by the GOZ has similarly supported 098 management and other projects. Over 50% of expenditures (both dollars and zaires) have been in direct support of 098. Project funds have not been used to support direct hire personnel.)

B. Road Transportation

The roads in the project area fall within the responsibility of Office des Routes where they are of national or regional interest, and of the Department of Agriculture where they are of agricultural interest. There is uniform agreement with respect to the constraints to improved road transport in the project area: slippery slopes and bridge accesses; a lack of surfacing materials for all weather roads; inadequate water crossings; poor road drainage and design standards; inadequate equipment maintenance and spare parts procurement and inadequate road maintenace. The Project at present addresses itself to the first three of these constraints, namely:

- bridges and bridge access,
- slopes stabilization, and
- the location of surfacing materials and aggregates.

An important design change has been made to the bridge component. The project originally envisaged that all bridge work would be sub-contracted to private sector construction firms with Office des Routes acting as a Host Country Contracting Agency. The PIO/T was to have been drawn up by February, 1985. This contractual arrangement with Office des Routes has been successfully used for the Agricultural Marketing Development Project (660-0026). Experience with this Project has shown that Office des Routes has the capacity to administer and execute such an agreement.

However the original Project Paper requirement that all work be undertaken under Office des Routes management was unnecessarily narrow. Provisions should also have been made for direct sub-contracting by the project to local institutions and firms interested in improving water crossings of mutual concern. The region has a long history of road and bridge work being undertaken by local institutions (Developpement Progrès Populaire (DPP) and Sia Mission, for example) and by locally based Zairian and expatriate firms or individual traders. Voluntary contribution of labor to the State (Salongo) is also used for road and bridge construction and maintenance. The contractual arrangements in the Project Paper should have recognized this and allowed for a diversity of sub-contracting agencies. Office des Routes, either directly or through sub-contracting, should have been only one of a number of possible implementing agencies. The need to allow for direct sub-contracting by the project to local institutions and firms was recognized by the Mission and a Project Paper Amendment was signed on January 2, 1986 which allows USAID to enter into Cooperative Agreements, Operational Program Grant agreements (OPGs), and contracts with local private organizations for planned road construction activities.

The Mission has already initiated action under this amendment. A Belgian volunteer attached to the Jesuit Mission at Sia has already submitted a proposal to build 14 bridges which has already been approved. The Evaluation Team engineer examined the design proposals and found the engineering standards for the construction of the bridges acceptable, the technology appropriate, and the designs cost-effective.

Slippery slopes and river access roads are a critical constraint to the marketing of food crops, especially during the marketing campaign which overlaps with the second rainy season. Office des Routes estimates that there are approximately 200 kilometers of such slopes in the project area. A number of techniques exist for slope stabilization but most require the use of bitumen which is a costly item requiring scarce foreign exchange for its importation. The Project Paper stipulates that the lowest cost per kilometer method of stabilization be chosen. At the time of its preparation, Office des Routes was experimenting with unsealed cement stabilization as a possible cost-effective technique for rural roads with low traffic volumes. The outcome of these experiments was, however, inconclusive since the required procedures were not followed in the stabilization of the cement. No cost estimates were available for the unsealed cement stabilization experiments but cement stabilization with two coats of bitumen and gravel costs Office des Routes $19,000 per kilometer for materials alone for work in Kinshasa. The transportation costs for similar work in Bandundu could double this figure.

The Project Paper proposes an extension of these experiments to the Bandundu region. It is now recommended that the range of techniques to be tested be expanded to include other techniques used for slope stabilization elsewhere in the humid tropics. These could include both sealed and unsealed cement stabilization using a grader or scarifier to mix the cement and soil; cement stabilization using, for example, a 21/14 mobile mixer to mix the 21/14x cement and soil; stabilization using pre-fabricated cement paving blocks; wet-mix stablization (a pebbles and sand mix); and, gravel-bitumen stabilization.

The same strict monitoring, quality control, documentation, and testing conditions as outlined in the Project Paper and re-emphasised in the Evaluation Team engineer's report should be applied to these stabilization experiments. The technical assistance team should give high priority to re-negotiating this component with Office des Routes. It may be difficult to find a Kinshasa based private contractor interested in such trials and the team should consider other alternatives: direct contracting with Office des Routes, funding some trials through other Mission road projects (026 for example) or identifying firms or institutions in the project area interested in carrying out the work.

Another element in the Project Paper is the provision of equipment, supplies, and technical assistance to Office des Routes to undertake field research into sources of surfacing materials and aggregates. The lack of a local source of surfacing materials increases the cost per kilometer of improved road quite significantly and local supplies of these are essential to the longer term viability of the all weather road improvements planned and now being undertaken in a number of Mission projects.

At the time of writing the Project Paper, Office des Routes had located one borrow pit outside Kikwit and the Project Paper expresses the optimistic belief that where there is one such site more can be found. Since then the Office des Routes soils laboratory has undertaken a number of competent studies in the area of the proposed 028 road and has identified two sources of surfacing materials and a source of stones alongside the Piopio River. DPP is using another stone source for its bridge work. Thus some optimism seems justified and this component should be implemented as soon after the arrival of the technical assistance team as is feasible. The estimated cost of this component is modest and the possibility of success more than justifies this outlay. The financing of a simple river dredging or screening system which would yield surfacing materials was also considered during the design phase. A mechanical dredge suitable for local rivers has been designed by Mr. de Moulin at his boatyard at Kingabwa (near the Inga Shaba offices). Further consideration should be given to this possibility.

In general, the technical assistance team should have as its first priority not only a rapid road (and river) inventory but a general needs assessment. Consideration should be given to expanding the scope of 098 to include other forms of assistance designed to overcome the wider set of constraints listed above. The team should investigate whether there are ways to assist traders in the project area who have entered into conventions with Office des Routes for the maintenance of local roads. The implications for the availability of future road engineers of the closing of the Institute for Buildings and Public Works (IBTP) in Kinshasa should be closely monitored.

Every effort should be made to support the regional office of the Service de Gestion du Materiel de Travaux Publics (SGMTP) which gives general support to all Office des Routes Bandundu brigades for equipment maintenance and spare parts procurement. Equipment and technical assistance support to the Office des Routes Regional Office could also be reconsidered. Both of these were considered in the design phase but at that stage the capacity of Office des Routes, including their external assistance negotiating capacity, was over extended and the discussions were relegated to a later date.

The 098 technical assistance team should keep in touch with other USAID road and river projects in the area - 026, 028 and 097 - and should, at least informally, coordinate its work with theirs. Selection of bridges, bridge accesses and slopes for improvement should be made in consultation with 102. In particular, formal consultations should occur between 098 and 102:
(i) before the dry season and again before the agricultural marketing campaign (or main agricultural growing seasons, should the campaign be rescinded); and,
(ii) before either project embarks on re-design activities. The project should also take into account the road construction and maintenance projects of other bilateral and multi-lateral donors in the region, in particular the World Bank, ILO, and the World Food Program.

The strengthening of the road component has implications for the level and type of technical assistance required. The Project Paper envisages the local recruitment of an engineer responsible for the road component. Should such a person not be available, recruitment should be authorized from overseas. Funds for further short-term technical assistance within the road component may also need to be added to the budget. This should be addressed by the technical assistance team after the initial transport inventory and needs assessment is completed.

C. River Transportation

The need for a linked network of road and river transportation in this region was first recognized in the Mission in recent years by the designers of 026. 098 built on much of their analysis. Historically, river transport was the dominant mode, but in the post-colonial period a number of factors led to the pre-eminence of road transaportation. The most important of these factors was the breakdown of river maintenance, security, and transport systems, as a result of government neglect. This coincided with the beginnings of a subsistence cash economy in the region as cultivators started producing surplus food and other crops for sale. Both transport odes have important and complementary roles to play in the regional economy and so 098 interventions focus on both systems.

The approach taken in the design of the river transport component was to improve navigation conditions on selected rivers in the project area and to encourage the simultaneous development of a cargo transport system with a much broader base than exists at present. Other elements investigated during the initial design phase were the construction of ports and assembly points, the importation of marine deisel inboard motors and the establishment of marine engine sales, maintenance and spare parts facilities in the region.

Despite the fact that the technical assistance team has not yet arrived, Mission staff have made good progress in implementing some elements of this component, in particular, the assistance to Regie des Voies Fluviales (RVF), the parastatal responsible for river maintenance, and the construction of metal cargo boats. A preliminary navigation evaluation of the Kasai and Kwilu Rivers was completed by a contractor in October 1985. The report evaluates the general navigation conditions of these two rivers and develops terms of reference for a Kasai and Kwilu Rivers hydrography survey. It also contains recommendations for the proposed Study Tour. The report outlines the equipment requirements for the survey, the qualifications required for the proposed six person team and suggests a phased approached (pre-survey review, survey preparation, field survey and verification, and chart publication) with personnel assignments proper to each phase. There is not sufficient information in the report to determine the budgetary requirements of the proposed survey.

The original equipment support requested by RVF was for ten pieces of radio communication equipment and six echo sounders. For reasons of equipment compatibility and standardization, RVF has now requested that USAID furnish it with its radio communication requirements for the whole country, namely 20 pieces, and that the Belgian Cooperation take responsibility for the purchase of the echo-sounders. This seems a well-founded request and highlights the need for regular consultations between the project team, the Belgian Cooperation, the World Bank, and RVF.

Progress has also been made on the inventory of spare and operating parts needed to rehabilitate US manufactured equipment in the RVF boat yard. However, a number of problems remain. The Evaluation Team engineer noted that the monorail hoists given to RVF by USAID in 1975 have a weight lifting capability far in excess of the structure proposed for their installation. In order to be safely installed, extensive supporting structural element modifications and additions would be required. This would be an additional cost not envisaged in the Project Paper. The technical assistance team should decide on the cost effectiveness of installing these mobile cranes in reinforced structures or of disposing of them and buying more appropriate equipment with the proceeds.

The other problem with the boat yard is the question of its management. While there have been significant improvements in management practices within top management at RVF, there is as yet little sign of any management improvements within the boat yard. The project team as part of its assistance to the boat yard will need to ensure that staff are capable of initiating and maintaining procedures for the effective use and maintenance of equipment. During the preparation of the PIO/T, the decision was made to change the shop foreman position for the boatyard to that of a local hire person. This may have to be reversed since it is unlikely that there are any qualified people in country other than those who have once worked with RVF and who therefore may be part of the problem.

It was also envisaged that assistance would be given to RVF to construct 16 fixed navigation markers on the Kasai River. In the interim, the Conseil Executive has released funds from its regular budget for the construction of two markers. Should more funds be made available in a timely fashion for the construction of the remaining markers, the counterpart funds for this element should be reprogrammed.

RVF has requested that priority be given to the rehabilitation of the US manufactured equipment in the boatyard and that the USAID funded hydrographic survey be postponed until 1987. RVF will itself undertake a hydrographic survey of the Kandolo Pass this year funded from its own budget. It is highly unlikely that the USAID-funded survey could be mounted this year in any case, and so USAID should accede to the request. Discussions should take place with RVF to determine whether it needs any assistance for its first survey for this would help in the planning of the USAID-funded survey.

These changes and the recommended terms of reference for the hydrographical study raise questions about the role of the proposed locally recruited river engineer. The metal boat construction could best be overseen by the naval architect and the river maintenance component and the hydrographical study may be able to fall under the responsibilities of the Chief of Party. The need may be greater for short-term assistance not only in river maintenance, hydrography, cartography, equipment technicians, etc., but also for the proposed port and warehouse construction components. The technical assistance team should be asked to re-examine this component and to make recommendations.

The Mission has already entered into an agreement with the Bandundu Baptist Community (CBB) in Mai-Ndombe for the construction of three metal boats. The material and parts for the first of these boats was due to arrive in Bosobe during the course of the evaluation. The Baptist Community has shown itself to be capable of managing procurement and finances in a professional manner and has been well supported by its mother community in Sweden.

The second mission scheduled to receive assistance for the construction of metal boats and barges, Developpement Progrès Populaire (DPP) at Idiofa, has a long history of road transportation within its geographic sphere of interest. In anticipation of 098 assistance to expand its operation into the more cost-effective river transportation, it has undertaken road and bridge work on the road between Idiofa and the port of Minganshi on the Lubwe River. It plans to use port facilities there, at Dibaya-Lubwe and in Kikwit. In preparation for the latter, it has purchased a parcel of land in Kikwit where it plans to build a warehouse.

DPP has been responsible under 097 and 026 for the construction of a number of bridges and bridge abutments. Evaluations of these projects have shown that DPP has the capacity to recruit personnel, to manage staff, to implement its agreement in a timely and technically competent fashion and to account for finances. However, there is a need for extensive supervision of project activities.

DPP already has experience managing a transport system and it will not be difficult to find trained crew for the boats and barges. There is, therefore, no reason to delay implementation of this element. However consideration could be given to the provision initially of one boat and barge for the Kasai and also for the Lubwe rather than the two envisaged in the Project Paper, unless there are significant economies of scale. Decisions about the remaining vessels could be contingent on perfomance with the first vessels. The possibility of rendering similar assistance to private sector firms interested in the provision of river transport should also be examined.

DPP, unlike the Baptists, will not itself undertake the construction of these vessels, but it will submit detailed cost estimates for construction by a local boat building company. The project team should look into the metal construction capacity of boat building firms in the region. There are boat yards, for example, at Dima, run by C.K.E. (Compagnie du Kasai et de l'Equateur) and at Minganshi, run by CCB (Compagnie du Commerce du Bandundu). In Kinshasa, there are a number of small boat yards including Groupe Planoki, Ets., Masuwa and that of Mr. de Moulin at Kingabwa. Based on the most current cost estimates, the local cost budget component for the construction of these pushers and barges will probably need to be increased. DPP would also be interested in receiving assistance at a later stage for the construction of ports and warehouse facilities.

It is recommended that the technical assistance team continue to investigate the possibility of including assistance towards the construction of low-cost ports, of assembly points and of maintenance and sales facilities for marine inboard and outboard engines. The logging company at Nioki, where wooden "baleinieres" are constructed, had expressed some interest in this. The Professional and Technical Institute (ITPK) run by the Jesuits in Kikwit could be supported in the training of marine engine maintenance. The team should consider the feasibility of purchasing a speed boat for use by members of the project team, especially the wooden boat designer.

D. Information

The arguments of this section are presented in greater depth and detail in Annex C, which was written by the Evaluation Team's information specialist.

The information requirements for 098 and 102 can be divided into two types: that required by each project for the purpose of project and performance management and for on-going design, on the one hand, and, on the other hand, that required to monitor and evaluate the wider socio-economic effects of these interventions, that is, their impact on the ultimate beneficiaries of the project, the rural population of Bandundu.

The first type of information collection and analysis must be the separate responsibility of each project. There should be no formal coordination between the projects at this level, although each project should be aware of what the other project is doing. This can occur through informal consultations.

The second type of data requirement will be common not only to 098 and 102 but to all USAID projects within their geographic sphere of influence. Because of the geographic concentration of assistance in the Bandundu region such an impact monitoring system cannot attempt to sufficiently disaggregate individual project effects. To the extent that this is possible, it can be done by the information systems of each project. The overall impact of all these investments will be a function of the complementarity of the designs of the component projects. At one extreme, it is possible for project effects to negate each other so that there is little overall impact. At the other extreme, the impact may be greater than the sum total of its parts. Rather than monitoring the impact of an individual project, there is a need to monitor the overall impact of USAID's assistance to the area.

Despite the apparent logic of coordination the information components of 098 and 102, exactly how to do this has led to a certain amount of confusion and disagreement among mission staff. Two competing views concerning how to implement the information components of these projects have emerged. The initial strategy contained in the Project Paper and other early planning documents propose a highly coordinated and centalized approach. Except for monitoring data very closely linked to specific project outputs, a single information plan would be followed for both projects.
Because of the amount of data that this master plan would require, it appeared that a mini-computer would be needed for data management and analysis. A third element in the initial strategy was to use the information components of these projects to strengthen the capacity of Zairian institutions for data-related activities.

An alternative strategy has developed since the initial design stage. This alternative also proposes purchasing a mini-computer. Guidance from AID/Washington reinforced the assumption that a mini-computer was required. Consequently, this part of the original plan was accepted and moved ahead.

However, the alternative strategy differed in two important ways from the initial plan. Whether intentional or not, the coordination of data-related activities between the two projects has received lower priority by mission staff. A second major difference was that the alternative strategy proposed locating the mini-computer in the USAID office where in-country research groups working for the projects would be given access to the machine as needed.

Based on a review of the information requirements of 098 and 102, and discussions with project staff, neither of these two strategies individually offer a viable approach for the information components of the two projects.

An outline of the minimum information requirements for monitoring the wider socio-economic effects of 098 and 102 is contained in section 2.3 of Annex B. The approach recommended is practical and minimal: wherever possible data should be collected at the community level and should indicate general trends related to the quality of life of the target population. For example, no attempt should be made at least in the early stages to collect comprehensive production data although information on trends in yield, crop losses, area under cultivation, etc., will be gathered. Equity questions, that is questions relating to the distribution of benefits spatially, by social stratification, by age or by gender may not be possible to gather at that level and may require going down a level, for example, to the household. Of these, the most important concern is gender equity, since project benefits could be skewed by the strict division of tasks and responsibilities and the intra-household allocation of resources found in the project area.

The components of this minimalist monitoring system should be decided jointly in formal consultations between 098 and 102. The subsequent implementation of parts of this system could be undertaken by either project although it is expected that 102 will take the lead.

All data collection must be coordinated with that of the UNDP-funded Bandundu agricultural statistics project, with other on-going work of the various sections of the Department of Agriculture including that of the "Direction des Marches, Prix, et Credits de Compagne," of CEPLANUT, CODAIK, and others interested in the collection of data in the area.

The recommended mechanism for data collection for monitoring and evaluation purposes is the contracting of Zairian research institutions with short-term technical advisors and project staff providing on-the-job training in areas where they lack the required professional competence. This approach is performance-oriented in that a failure to produce work at the required level of competence would mean an end to future contracting possibilities. Such an arrangement would also have longer-term benefits in improving the in-country capacity for data collection and analysis without committing USAID to the standard form of institution-building.

Since few Zairian research institutions have adequate equipment for such work, the contracts will have to include computers as a form of contract payment, beyond salaries, field expenses and other costs. The recipient organization would be responsible for the maintenance and running of the equipment. Failure to do so would be another ground for refusing future contracting. Such an approach is a form of institution-building. It contributes significantly to the development of the recipient country capacity to monitor the socio-economic effects of external assistance without the donor falling into the pitfall of "primes," recurrent costs, and poor performance.

The range of local agencies and organizations already involved in data collection and analysis is well outlined in the Food Studies Report annexed to the 102 Project Paper (Spencer, 1984). Any of these could be potential contractors and none of them, including the Economic and Social Research Institute (I.R.E.S.) (see Annex C), should be written off until they are proven incompetent. If, ultimately, no local institution is found to have the required competence, then the studies will have to be contracted to US-based contractors but this should be a last recourse. In this case, there should be at least one local institution in Kinshasa and one in the field which would be the repositories for all information collected.

The strategy of minimal data collection for impact monitoring and evaluation has implications for the choice of hardware. A minimalist approach, coupled with the technological advances in the development of micro-computer hardware and software since the writing of the 098 Project Paper, makes the purchase of a mini-computer unnecessary. IBM or IBM compatible micro-computers with off-the-shelf software should be purchased. These should be placed in the 098 and 102 offices and should be included, where necessary, in contractual arrangements for research studies. Consideration should be given by the 098 technical assistance team to the placement of a field computer in the Bandundu Support Unit office.

The detailed recommendations of this section are contained in Annex B.

(USAID footnote. One of the purposes of the evaluation was to propose an amendment to the Project Paper. Although the evaluator alludes to the need for an amendment she does not specifically outline the revisions to be covered by an amendment. These revisions are noted below.

Two components of the Project, the roads and infrastructure systems, must be altered if the project's purpose is to be well served. The original, project design for the roads component limited interventions to low-cost slope stabilization experiments. It now appears that the marketing constraints of poor roads can best be overcome by a series of interventions: technical assistance to Office des Routes' Bandundu Office, construction contracts with capable local organizations, training support to road workers, etc. Such an expansion in the range of road interventions will require an amendment of the Project Paper's description of this component.

The information systems component envisaged that the Project would provide one mini-computer and technical and financial assistance to IRES. Mr. Hermann, in this evaluation, advises strongly against a mini-computer and for several personal computers. In addition, he recommended that the Project take advantage of the flexibility offered by the new configuration, and work with several local research groups. USAID agrees with this recommendation and will incorporate it into the Project Paper Amendment.

This amendment to the Project Paper will be prepared once the Technical Assistance Team arrives in-country and becomes familiar with the Project. The amendment should be completed by January 1987.)

ANNEX A

PROJECT IMPLEMENTATION CHART
Agricultural Marketing Development Project, 660-00[illegible]
Assistance to Road Transportation

Activity	FY85 June	July	Aug	Sept	FY86 Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	FY87 Oct	Nov	Dec
Bridge Construction Kidnaam Collectivity																			
I. Review of Sia Mission Proposal	———																		
II. Cooperative Agreement				———	———	———	———	———	———										
II. Purchase & Preparation of Materials										———	———	———	———						
IV. Bridge Construction														———	———	———	———	———	———
Project Area Soil/Aggregate Study																			
I. Technical Assistance - Geologist on Site														———					
II. Study														———	———				
III. Laboratory Analysis																———	———	———	———

PROJECT IMPLEMENTATION CHART
Agricultural Marketing Development Project, 660-0098
Assistance to River Transportation

Activity	FY86 June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	FY87 Oct	Nov	Dec
RVP Boatyard																			
I. Technical Assistance																			
- PIO/T & Waiver Spare Parts Consultant		———																	
- Consultant on Site					——														
- PRMU Shop Foreman on Site													———	———	———	———	———	———	———
II. Procurement																			
A. Spare Parts 1st lot																			
- PIO/C									——										
- PSA contract										———	———	———	———	———	———	———	———	———	———
- Spare Parts on Site																		———	———
B. Spare Parts 2nd lot																			
- PIO/C														——					
- PSA contract															———	———	———	———	———
- Spare Parts on Site																			(Apr 1987)
III. Rehabilitation																			
- Inventory													———	———	———	———			
- Shop Machinery																	———	———	———
IV. Training													———	———	———	———	———	———	———
RVP Hydrographique Survey																			
I. Technical Assistance																			
- PIO/T IQC Survey Consultant	———	———	———																
- Survey Consultant on Site				——															
- PRMU River Engineer on Site													———	———	———	———	———	———	———
- Hydrographers on Site															———	———			
II. Procurement																			
- PIO/C Hydrographical Equipment									——										
- PSA Contract										———	———	———	———	———	———				
- Equipment on Site															———	———			
III. Hydrographical Survey															———	———	———		
IV. Navigation Charts																		———	———
RVP-RVM Study Tour																			
- Selection of Participants											———	———	———						
- PIO/P														———					
- Arrangements															———	———	———		
- Tour																		———	———

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PROJECT IMPLEMENTATION CHART
Agricultural Marketing Development Project, 660-0098
Assistance to Road Transportation (cont'd)

Activity	FY85 June	July	Aug	Sept	FY86 Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	FY87 Oct	Nov	Dec
Wooden Boat Construction																			
I. Technical Assistance																			
- PASU Naval Architect on Site													———	———	———	———	———	———	———
- PASU Boat Builder on Site														———	———	———	———	———	———
II. Site Selections													———	———	———				
III. Prototype Designs														———	———				
IV. Construction																———	———	———	———
V. Monitoring																		———	———
Metal Boat Construction																			
I. Grant to CSB	———	———	———	———															
II. Procurement																			
- PIO/C Construction Materials					———	———	———												
- Materials on Site								———	———	———	———	———	———	———	———	———	———	———	———
III. Construction								———	———	———	———	———	———	———	———	———	———	———	———
IV. Monitoring of Marketing Activities															———	———	———	———	———

PROJECT IMPLEMENTATION CHART
Agricultural Marketing Development Project, 660-0098
Project Monitoring and Evaluation

Activity	FY85 June	July	Aug	Sept	FY86 Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	FY87 Oct	Nov	Dec
Data Processing & Analysis Center																			
I. Technical Assistance																			
- PRMU Systems Manager													———	———	———	———	———	———	———
- Short-term Consultants																———	———	———	———
II. Procurement																			
- SER/IRM Approval of Information System		———	———	———	———	———	———	———											
- PIO/C								———											
- Order									———	———	———	———	———						
- Installation													———						
- Operation														———	———	———	———	———	———
III. Training													———	———	———	———	———	———	———
IV. Monitoring															———	———	———	———	———
V. Evaluation																			(Feb 1987)

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ANNEX B

DESIGNING THE INFORMATION COMPONENTS OF THE AGRICULTURAL MARKETING DEVELOPMENT PROJECT (660-0098) AND THE AREA FOOD AND MARKET DEVELOPMENT PROJECT (660-0102)

1. Previous Planning

Projects 098 and 102 were originally designed as complementary parts of a geographically focussed rural development program in the Bandundu Region. A major objective of the Projects is to stimulate economic development in the region through a variety of activities intended to benefit, both directly and indirectly, small farmers and the rural poor. 098 will improve basic transportation networks - i.e., roads, bridges, drainage, river passage and improved boat construction. 102 will support production-oriented interventions, such as improved cultural practices and planting materials, via extension services using local institutions. Additional interventions, such as agricultural credit, will be designed for subsequent stages of 102.

Clearly, the two projects should be highly complementary; 102 will encourage production increases and 098 will facilitate evacuation of surplus production to intra- and inter-regional markets. Because of this complementarity, considerable coordination of data-related activities between the two products was planned. Certainly, the common objectives of stimulating commercial agricultural production and improving the socio-economic condition of small farmers indicates that coordination of project information components should be attempted. Otherwise, a considerable amount of data collection for evaluation purposes could be duplicative. Moreover, separating out the effects of an individual project from others in the same geographic area which also contribute to the same type of economic improvements (e.g., increased farm production, improved small-farmer well-being) would be very difficult, if not impossible. The alternative strategy of coordinating the information components of these two projects, and possibly the other projects in the region, should at least avoid problems of redundancy and maximize the use of funds available for data collection and analysis.

Despite the apparent logic of coordinating the information components of 098 and 102, exactly how to do this has led to a certain amount of confusion and disagreement among mission staff. Quite correctly, there is concern that this sort of coordination might interfere with the specific needs of each project. Equally important are the issues of how to use project funds for computer equipment and for drawing on local research groups for data collection and analysis.

Two competing views concerning how to implement the information components of these projects have emerged. The initial strategy contained in the project papers and other early planning documents for these projects propose a highly coordinated and centralized approach. Except for monitoring data very closely linked to specific project

outputs, a single information plan would be followed for both projects. In this regard, a comprehensive inventory of virtually every type of data possibly needed for 098 and 102 monitoring and evaluation was prepared (see Spencer, 1984). Because of the amount of data that this master plan would require, it appeared that a mini-computer would be needed for data management and analysis.

A third elemeht in the initial strategy was to use the information components of these projects to strengthen the capacity of local institutions for data-related activities. Specially, I.R.E.S. was selected as the lead research group to be used for special studies and periodic data collection needed for 098 and 102 monitoring and evaluation. Because I.R.E.S. lacked computer equipment (i.e., the University's mainframe is broken and is unlikely to be repaired), the mini-computer to be purchased for the projects would be placed at I.R.E.S.

An alternative strategy has developed since the initial design stage. This alternative also proposes purchasing a mini-computer. In addition to the initial view that the machine with this capacity would be needed for 098 and 102, the difficulty experienced with processing and analyzing data from the Bandundu Small Farmer Survey suggested the need for increasing the mission's capacity for such work. Guidance from AID/Washington further reinforced the assumption that a mini-computer costing $150,000 or more was required. Consequently, this part of the original plan was accepted and moved ahead.

However, the alternative strategy differed in two important ways from the initial plan. Whether intentional or not, the coordination of data-related activities between the two projects has received lower priority by mission staff. Less emphasis on coordinating 098 and 102 information components is understandable given that a) the original plan was not specific about precisely how this would be done; b) the attention of mission staff tends to focus on their individual projects; and c) implementation responsibilities for 098 and 102 were divided between two different USAID offices.

A second major difference was that the alternative strategy proposed locating the mini-computer in the USAID office rather than installing the machine in I.R.E.S. An assessment of I.R.E.S. made in November, 1984 (see 11/1/84 Memorandum to H.L. Braddock from John Holtzman and Chris Pappas, attached to Annex C) was quite critical of the group's capabilities for data collection and analysis. On at least one study (the Prindle study of eight market towns), some held the opinion that I.R.E.S.' performance was below par. Given that a single mini-computer was to be purchased, combined with a general acceptance of the negative views asserted in the Holtzman/Pappas memo, I.R.E.S. was considered an unacceptable location for the machine. Instead, the mini-computer would be located in the 098 project office and users - I.R.E.S. and other local research groups working for the projects - would be given access to the machine as needed.

Based on a review of the information requirements of 098 and 102, and discussions with project staff, neither of these two strategies individually offer a viable approach for the information components of the two projects. However, each contains a number of valid points and raises important issues about developing a practical strategy for dealing with the information requirements of 098 and 102. The remainder of this section presents a third approach which builds on what is sound in the two preceding strategies and offers alternatives for those elements which are technically faulty or impractical.

2. A Practical Approach to the Information Components of Projects 098 and 102

2.1 The Planning Process

Discussions with mission staff suggest that thinking about the information components of 098 and 102 has assumed that a mini-computer is necessary for managing and analyzing the data to be collected. In fact, the planning process should work in exactly the reverse order. Hardware and software decisions should be among the last to be made. For 098 and 102, the planning process should start with clarifying whether and to what extent coordination of data collection and analysis is feasible. Next, the most important types of data needed by the two projects should be identified. Given the difficulties and costs of collecting reasonably accurate data in Zaire, and particularly so in the project area, data to be collected on a periodic basis should be restricted to the minimum necessary for sound project monitoring and evaluation. Special studies which will not be replicated, such as those planned for 102, will provide additional information. After determining what data to collect periodically, how it will be collected, processed, analyzed and managed to develop a project or regional data bank should be decided. Finally, hardware and software selection should be made based on the preceding decisions.

2.2 Coordination and Separation of Data-related Activities in 098 and 102

Based on the complementarity of 098 and 102, the information components should be coordinated where possible. By doing so, the projects will jointly produce more information about the effects of the interventions on the local economy than either could do individually. On the other hand, both projects have their own unique management information requirements - e.g., information about specific outputs and their short-term effects.

Like most other projects, the data required for 098 and 102 can be divided into two general, interrelated categories. One is tied to the specific interventions and the direct beneficiaries of those interventions. Much of this data will pertain to the immediate needs of project management, but it will also contribute to evaluation and re-design activities. Though this project-specific data might have

utility for other projects (e.g., what 102 generates could be useful to 098, what 098 generates could be useful for 026, 028 and 097), very little, if any, coordination between the projects should be attempted for this type of data. Doing so could easily lead to more problems than benefits, especially in regard to meeting the immediate information needs of project management. Moreover, the key information requirements for the two projects differ. Sustainability will be particularly important for 098 (e.g., are the road and river improvements being maintained); whereas the experimental nature of 102 places greater emphasis on frequent assessment of NGO performance and requires to a much greater degree operational data. Therefore, each project will need to collect its own data at this level.

Where coordination, or more accurately, a division of labor is possible is in regard to data concerning the broader effects of the projects on the regional economy (if not the region, then at least in the areas where the projects have been implemented). Though much of this data will pertain to evaluation purposes, it should also have considerable utility for project managements concerning mid-course changes in implementation and planning future interventions. A coordinated effort between the two projects to generate data on their combined effects or impacts should offer worthwhile payoff. In brief, each project should collect different types of data which could be pooled to assess the broader effects of the interventions designed to stimulate regional economic growth. For example, 098 should collect data on increased shipping of commercial goods resulting from improved transportation systems. 102 should collect data on marketing activity as indicative of increased farm production. Both projects should jointly support community level data collection to assess benefits and the equity of their distribution accruing to small farmers.

2.3 Data Requirements

Given these two major categories of information, the following types of data should be collected by 098 and 102.

2.3.1 Project Specific for 098

The bulk of 098's information requirements will consist of fairly standard project management data for infrastructure improvements. Much of this data should be contained in the operational records of the agencies assisted by the project. This would include the number of kilometers of road improvements, the number of culverts installed, bridge repairs and improvements, and the amount of river marking, clearing and dredging and other river improvements reported on a quarterly basis. Budgetary data on allocations and actual expenditures for maintenance activities should also be obtained. Combined with project expenditure data, all of this information can be stored and summarized using a standard spreadsheet, such as Lotus.

Approximately every three to six months, the project should verify the operational data it is receiving and monitor the maintenance of improvements. This would consist, for example, of simply observing whether damage to roads resulting from heavy rains or truck use are being repaired, or whether culverts are cleared of debris washed into them during the rainy season. These periodic reviews could be scheduled for different seasons throughout the year to keep track of annual recurrent problems. This should be a fairly low-cost excerise, probably within the capabilities of the project staff and should provide information signalling problems which ought to be brought to the attention of the appropriate agency - the regional roads or river authorities - or which should be addressed in future project assistance.

Given that the project will work with a relatively small number of boat construction firms, it should be possible to annually assess the assistance they are receiving. Data on the business operations, such as the number and type of boats built, gross receipts, number of employees, etc. - could be obtained to track changes in these firms over the course of the project. The operators of these firms should be interviewed about their adoption of new technologies, strengths and weaknesses of the assistance they receive and additional constraints they confront.

2.3.2 Regional Effects for 098

Traffic counts are a standard means of tracking the effects of infrastructure improvements. This could be done periodically throughout 098 for both road and river traffic and could well be contracted to the Direction des Marches, Prix et Credits de Campagne within the Department of Agriculture. However, the project should also conduct at least two surveys of transporters to obtain information on the socio-economic effects of project interventions. The surveys should be spaced several years apart to capture possible major changes in the transportation sector. Key issues for this survey include the volume and content of goods being shipped inter- and intra-regionally, the competitiveness of industry and some estimate of who has benefitted from the improvements. A similar survey could be conducted for river trade. The scale of the survey can be adjusted according to project resources and guidance concerning the design of such surveys using a key-informant approach is available (see Hermann, 1984, "Evaluating the Socio-economic Effects of Rural Roads Projects", PPC/CDIE).

2.3.3 Project Specific for 102

Given the very experimental nature of 102, the project will need data on the performance of the local institutions with which it works. An easy way to do this is to develop a self-reporting system for the NGOs selected to participate in the project. As part of the management training 102 will provide to the NGO's, instructions about how to record and report operational statistics could be provided. The

information specialist on the technical assistance team should develop a very simple reporting form. Data on the number of farmers contacted, the amount of planting materials or improved seed varieties provided, the number of extension agents employed and the operating costs to the NGO should be collected periodically, perhaps on a monthly basis. The NGOs should also keep a list of the farmers with whom they are working. The data base produced from these reports would expand (or contract) as the project is implemented. As new NGOs participate in the program, they would be added to the reporting system; similarly, as other NGOs leave the project, they would be dropped from the system (though the data they provided would be retained). Management of the data base should be possible using computers to be purchased for the 102 management team.

Based on the NGOs' lists of clients, a sample of farmers should be drawn to obtain data on the utility and effectiveness of the services provided. A relatively simple interview schedule should be developed by the information specialist for 102 to collect data on the farmers' assessment of the NGOs' assistance, whether the materials provided are being used, whether it has contributed to production increases (if they have occurred), additional constraints that the farmers confront which 102 might address, and changes in farming practices. Concerning the latter point, information should be obtained on crop mix (no more than a list of what they grow and a ranking based on the crop's importance for household consumption and for marketing), and marketing of commercial crops (a rough estimate - one quarter, half, etc. - of how much of each major crop is marketed). The purpose of this additional data is to determine whether the project is achieving its objective of increasing the farmers' participation in the commercial economy of the region.

2.3.4 Regional Effects for 102

During the course of 102, two surveys of agricultural marketing and local consumption patterns should be conducted. Two sets of traders should be selected. Established merchants in the main marketing towns in the project area should constitute one group. The second should consist of the small traders who transport goods between Kinshasa and Bandundu by river or road.

The survey of established merchants should collect data on changes in trading patterns, such as increases in specific commodities, new items, and the reverse trade flow from Kinshasa. Local prices for major commodities, business practices (such as the availability of credit to the merchant and his provision of credit to customers) and indicators of increased competition (e.g., an increased number of merchants/traders in the area) should also be collected. It would be useful to obtain information about intra-regional patterns, specifically the movement of goods to and from rural communities.

Regarding the sample design, it might be possible to draw a representative sample of the more established merchants/traders. The survey might also be restricted to the main marketing town in the project area to simplify data collection although there might be good reasons for including the village level traders. The survey of established traders should be conducted at least twice using the same sample in each round (regardless of whether a random sample is used or not). The first round should be conducted shortly after project start-up; the second, roughly two to three years later.

For the transient traders, non-random selection will be sufficient for the study. Placing interviewers on-board the boats both on the way to Bandundu and on the way back to Kinshasa would give access to these individuals at a time convenient to them for interviews. Transient road traders could be interviewed at the point of sale, whether in the region or outside. Similar types of questions about trading volume, types of commodities, prices and reverse trade flows should be collected. This survey could be conducted more frequently, perhaps annually.

2.3.5 Assessment of Socio-economic Effects

Resources from both 098 and 102, as well as other USAID funded projects in the Bandundu Region, should be used to conduct an annual community level survey of the combined project areas. The importance of this survey is that it should provide information about the effects or impact of project interventions on small farmers. To some extent, this can be inferred from the trade and marketing studies described above. The follow-up surveys of farmers serviced by the NGO's of 102 should also provide some insight into impact on beneficiaries. But the projects are expected to stimulate economic growth more broadly in the region. The transportation improvements supported by 098 are a good example of this. Though the data collection described above for 098 and 102 will be useful in this regard, it will not provide sufficient information about the broader objectives of the projects to improve the well-being of small farmers. For example, the studies of traders/merchants and transporters might indicate that the business community is benefiting from project outputs. But the benefits might end there and not extend to any significant degree to the rural village level. Therefore, what is needed is a means of assessing beneficiary impact, and especially the equity of the distribution of those benefits. This will require additional surveys.

A cost-effective methodology for this is to use the village as the unit of analysis rather than a sample of household. A major advantage of this approach is that it provides a means of covering a large geographic area at minimal expense. The trade-off with community level data collection versus household surveys is in the detail of the information obtained. Village level data will describe only general patterns or conditions typifying the community at large. On the other hand, data collected about the community are often easier for a respondent to report than the more detailed questions often asked in

household surveys. Common indicators include the percentage of houses with metal roofs; the presence of a village well; the presence of latrines, the percentage of houses with wooden door frames; whether villagers have access to and use medical services; the number of functioning radios, bicycles or communally owned items reflecting capital investment; and whether crop production has generally increased, decreased or remained fairly constant over the past year.

Equity of improved socio-economic conditions within the village is more difficult to collect data on, but some can be done. The community level survey might include questions on whether women are engaging in new types of economic activities, whether road improvements have contributed to improved conditions for women, whether women have greater access to medical services or can purchase medicines more readily, whether the number of children attending school has increased, and whether the general diet (either content or amount) of children in the community has changed. However equity concerns such as spatial variation (e.g., comparison of villages across different locations of the study area or by distance from a marketing town), ethnic differences, age and gender differences may be difficult to chart at the community level and may require data to be collected at a lower level, e.g., the household. Of these equity issues, gender differences are the most important because of the extent of gender-based differientation in the project area. The same villages should be used and a sample taken of households, that is, a stratified cluster sample should be used. Data should then be aggregated back up to the village level. Questionnaires should be simple, focussed and well administered and could be more frequent than the community level surveys if required.

In total, no more than twenty to twenty-five questions would be asked in the community level survey. This would be augmented by some basic demographic data - the approximate number of men, women and children in the village; the ethnic composition of the village; whether number of young adults leaving the village to find work in the large towns has increased, decreased or remained about the same; and how far the village is from the nearest major market town. Some of these data can be observed directly, such as housing materials. Data on general trends or conditions within the community should be reportable by any competent adult, such as a village leader. It will be somewhat more difficult to obtain reliable equity data. It will probably be necessary to have two interviewers, one male, one female. For village women to report on conditions accurately, they will have to be interviewed in a setting (perhaps in a small group) where they do not feel pressured by male family members. Given the size of the project area, a sample of villages should be drawn and used again for subsequent rounds over the course of the projects. Data analysis would consist primarily of building indices of community conditions which would allow tracking changes within the villages over time. For this approach to have a reasonable chance of working, the survey must be kept as simple and as brief as possible.

3. Contracting for Data Collection and Analysis

As described earlier, the mission's two competing views about implementing the information components of 098 and 102 proposed very different approaches to how resources will be used for data collection and analysis. The initial strategy was to treat data-related activities as a mechanism for improving local capacity for data collection and analysis. Specifically, the projects would rely on I.R.E.S. to conduct necessary survey work and other studies for monitoring and evaluation. The mini-computer would also give I.R.E.S. an analytic capacity it lacked. The alternative strategy rejected wholely any form of institution building. Local research organizations would simply be called on to carry out data-related activities without training or other types of technical assistance. Both of these approaches have a major weakness which requires some re-thinking about how to carry out the data collection and analysis needed by the projects.

On the surface, an institution building approach which would concentrate project resources on a single research organization seems a logical approach. However, AID's experience with institution building efforts of this sort have achieved only limited success. They tend to be very long-term activities during which much of what is accomplished can be quickly lost for any number of reasons (e.g., high rates of staff turnover). Too often AID and other donors have gotten locked into supporting an institution despite continued poor performance. From the perspective of meeting project information requirements, the likelihood of this unsatisfactory arrangement occurring if a standard institution building approach were followed is quite high in light of the relative weakness of all local research groups. Nor do the projects have time to wait until a local research group develops the needed capabilities.

The problem with abandoning institution building objectives entirely is that the current unsatisfactory situation will continue indefinitely unless some type of effective strategy for strengthening local research capabilities is devised. Work with whomever seems most competent vis-a-vis other local organizations ignores the sad reality that probably none of these groups has adequate capabilities for the range of studies and surveys needed. That would be a serious oversight given the project's need for adequate information.

Contracting for studies which combines outside information specialists with local research groups offers an alternative. This should avoid the problems associated with the other two approaches while using what is sound in both of them. On the one hand, contracting prevents the projects from becoming permanently ensnarled with some group whose performance is generally unsatisfactory. On the other hand, contracting the entire study or survey to non-Zairian professionals as a standard approach would not be acceptable. Something has to be done to build local capacity for data collection and analysis and that means working with local organizations to the extent possible.

The solution is to bring in short-term technical advisors to work with local research groups. This would compensate for current inadequacies and at the same time, serve as an on-the-job training activity - i.e., Zairian researchers should learn needed skills and methods by working with professionals in the field. This training function should even be written into the scope of work for the outside advisors and in some cases, the advisors should be designated as in charge of certain components of the study or survey so that their advice is followed.

Combining local organizations with short-term technical assistance has been used successfully in other countries. This approach is essentially the same as how other components of projects are handled i.e., advisors working with counterparts. Sources of technical assistance for data-related activities include inter-governmental agreements AID has with the USDA, Department of Labor, and Bureau of the Census. Concerning the Bureau of the Census, the International Statistics Program Center has a division - the Survey and Evaluation Unit (ISPC/SEU) - which specializes in the design and implementation of sample surveys in developing countries. The SEU places considerable emphasis on training and has developed special short-term courses on various aspects of conducting sample surveys. On the other hand, contractors obtained through Indefinite Quantity Contracts (IQCs) can be used for precisely the same purpose and SEU is probably not the best source of assistance when the study will involve methods which do not meet rigorous statistical standards. PPC/CDIE is currently in the process of selecting a set of contracting firms for the evaluation IQCs. More emphasis has been placed on the firms' capacity to provide technical assistance for data-related activities to USAID missions. In short, there are number of options to choose among depending on the specific study, data collection activity or training need. It is recommended that, at the planning stage, a telex be sent to PPC/CDIE asking them to explain the types of services pertaining to data collection and analysis available through the Bureau of Census RSSA and other contractual agreements such as the Evaluation IQCs.

At the expense of belaboring the point, contracting with local groups to work on studies and surveys can still accomplish institution building objectives. That is, local organizations should develop new capabilities as a result of working with and receiving on-the-job training from outside technicians. On the other hand, this arrangement places considerably more emphasis on adequate performance. The local contractors realize from the outset that continued work is contingent on their meeting their present terms of reference. The message is very simple: no performance, no money. That eliminates the quasi-welfare mentality that standard institution building approaches foster (i.e., it does not matter what you do, or don't do, you will get the money anyway).

One final issue which must be addressed is the controversy surrounding the use of I.R.E.S. as a supplier of services needed for data collection and analysis. The Holtzman memo and other indications of shoddy performance are believable, but the approach suggested above should compensate for these weaknesses. Unfortunately, the alternatives to I.R.E.S. appear to be, for all intents and purposes, no better. They too have limited capabilities and a review of their work would probably reveal examples of unsatisfactory performance equivalent to I.R.E.S. Some are parts of GOZ Ministries (e.g. the Studies Division in the Agriculture Department) which further complicates working with them. At least one advantage of I.R.E.S. is that it is outside of University administration and functions as an independent organization which can (and has) entered into contracts for studies and surveys. Though most of its professional staff do have teaching responsibilities, I.R.E.S. also has full time research associates with doctoral training on its staff. If the above approach were used for carrying out 098 and 102 data collection activities, I.R.E.S. is organized so that it could be contracted with directly. In short, like it or not, there does not appear to be much of an alternative to I.R.E.S. The trick will be to work with them on a performance oriented basis and combine them with competent technical advisors. If they perform badly on the first contract, then no more work should be given to them. It might simply be impossible to use local research groups for 098 and 102 studies and surveys at this time.

4. Decentralized Data Management and Analysis

Based on the information needs of 098 and 102, the purchase of a mini-computer is not advisable. The data sets which would be produced by the studies and surveys recommended above should not be especially large. Given the current capacities of microcomputers, using off-the-shelf statistical packages (such as MicroStat or MiniTab) on microcomputers with a ten mega-byte hard disk would be sufficient. Granted the proposed data collection is a minimal approach, but if 098 and 102 are actually able to meet these recommendations, they will have done much better than the majority of other AID projects. In short, buying a mini-computer to analyze these data is comparable to ironing a pair of pants with a steam roller.

There are other reasons to avoid buying a mini-computer for these projects. First, all of the project funds for equipment would be sunk in one large computer. A problem 098 and 102 staff have confronted is where to put the beast - in a local institution, such as I.R.E.S., or in the 098 project office. A mini-computer at I.R.E.S. makes sense only if an institution building approach were to be followed. That appears to be a very unlikely and highly questionable decision. If the machine is installed in the institution and they fail to perform, the project will have effectively dropped its computer into a black hole. Eliminate that option.

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Placing it in an AID office is neither a novel nor good idea. Other AID missions have followed a similar line of reasoning and it is very likely USAID/Kinshasa would achieve the same dismal results in doing so. The idea that local researchers will come to the office to use the computer (something akin to the way a dead camel attracts flies) sounds good in principle, but usually fails in practice. That requires someone to be away from whatever their other responsibilities are, travel across town, use the machine, and then return to their office (or pack a picnic lunch and spend the day). That will have to be repeated each time the computer has to be used, and in Kinshasa, that is probably expecting too much. Second, the management requirements for a mini-computer are significant. Project staff have neither the skill nor the time to be computer technicians. A service contract will be needed which means everything stops until the repairman arrives, assuming the parts that have to be replaced are available. That is a fairly unappealing but very likely prospect when compared to microcomputers.

USAID/Honduras provides a useful anecdote in this regard. Honduras was the first mission to have a Wang mini-computer installed. It was purchased primarily to support studies and analytic work being done through USAID funded projects (sound familiar?) The first of many setbacks involved software with the final outcome many months later of the Inspector General threatening to sue the owners of SPSS, reflecting the mission's bad experience with getting needed software. Next, the Embassy demanded and got access to the machine. Mission paperwork increasingly shifted to the machine, including memo transmission between floors of the USAID building. An accounting program was installed which consumed a significant amount of the machine's capacity, so much so that nothing else could be done when it was running. But the final kiss of death was increasing violence in Tegucigalpa and a commensurate increase in security. As a result, the local researchers who were to have used the machine were prohibited entry to the building where the machine was located. Certainly many of these problems have technical solutions - e.g., more capacity, multiple mini-computers - but at quite a cost. The moral of the story: why bother with a mini-computer when a microcomputer with sufficient expanded capacity is all that is needed for the task at hand?

The decentralized computing that microcomputers offer circumvents that onerous problem of where to put the mini-computer. Micros can be spread here and there - the 098 office, field offices, I.R.E.S. and other local institutions as they are contracted to collect and analyze data. Concerning the latter point, transfering the machines to a local research group could be done through the terms of the contract. In addition to the cost of the study, the contract would stipulate the provision of one, two, etc. microcomputer systems (including all the peripherals like printers, surge protectors, etc. and software) by the project. In effect, this would constitute a form of payment. It should be made perfectly clear that the organization would be responsible for setting aside adequate funds to keep the machines

operable and that this would be a criterion by which their performance would be judged for future work. Also, the first contract where computers are to be provided should include a technical advisor who can provide instruction to the research group about use of the machines, data entry, and use of the software.

One of the first things 098 and 102 should do is purchase the microcomputers and related equipment. The information specialists on 098 and 102 should be required to develop a procurement list. If that is not possible, bring in a consultant who specializes in microcomputer systems design, such as Thunder and Associates in Arlington, Va. (contact Noel Berge). In general, microcomputers with plenty of power - e.g., ten megabyte hard disks, 640K RAM - will be needed. Assuming service is available locally, IBM or IBM-compatibles are preferable to Wang PCs, if for no other reason than cost. Buy available statistical software. Don't spend all the funds available for equipment at once - stay under $100,000 per purchase to avoid SER/IRM approval (or whatever the current amount is). Start by putting two machines in the 098 office and one each in the project field offices. Buy two more or more to be used for training and eventual installation in IRES or some other local research group. Once the projects, studies, surveys, etc. get underway, additional computers can be purchased to meet requirements as they emerge.

RECOMMENDATIONS

1. General Strategy

The information components of 098 and 102 should begin with collecting the minimum amount of data needed for adequate project monitoring and evaluation and get those systems in place and operating before expanding into additional data collection activities.

2. Information Planning

2.1 The planning process should begin with determining basic information requirements, the studies and surveys required to meet those needs, contracting arrangements to carry-out that work and, based on preceding decisions, select appropriate hardware and software equipment.

2.2 The data collection components of 098 and 102 should be treated as complementary in regard to evaluating the broader socio-economic effects the projects are expected to have on the regional development of Bandundu. Separate data collection systems should be established to monitor project performance and their short-term effects.

2.3 Data Specific to 098

(a) 098 will require operational data on road, river, bridge and drainage work reported by the roads and river agencies on a quarterly basis. Detailed data will be needed for the slope stabilization experiments. Budgetary data from these agencies will also be needed to monitor expenditures for maintenance.

(b) Periodic verification of completed work and the maintenance of improvements will be needed.

2.3 2 Regional Effects of 098

(a) 098 should support a study of the local transportation system to assess changes and benefits resulting from project interventions. At least two rounds of data collection will be required. Consideration should be given to repeating in the project area some or all of the studies carried out in Shaba for Project 105. This could be done by the same team of geographers together with the Kikwit regional office of the National Geographic Institute.

(b) A follow-up study of boat construction firms should be conducted to assess the effectiveness of project assistance and additional constraints to adoption of improved technologies.

2.3.2 Data Specific to 102

(a) The information specialist on the technical assistance team should develop a reporting system for the NGO's selected for the project. Instruction on how to use the system (i.e., forms) should be included in the management training planned for participating NGOs. Basic information about the number of farmers contacted, inputs provided, costs, staffing, etc. should be reported to the project on a monthly or bi-monthly basis.

(b) An annual follow-up survey of farmers serviced by the NGOs should be conducted to assess the utility and effectiveness of the assistance and to evaluate the benefits of the extension services.

2.3.4 Regional Effects of 102

A study of marketing patterns based on merchants and traders should be conducted to track changes in the volume and types of commodities traded, prices, intra- and inter-regional trade flows and increases in commercial activity. Both established and transient (small merchants travelling between Bandundu, Kinshasa and secondary cities by river and road) merchants should be included in the study.

2.3.5 Assessment of Socio-economic Effects

098 and 102 should jointly design and support a series of community level and other surveys during the course of the projects. Data on village level conditions and benefits derived from project interventions will be necessary to evaluate impact on beneficiaries and the equity of the distribution of those benefits.

3. Contracting which combines short-term technical advisors with local research groups should be attempted by 098 and 102 to collect and analyze data needed for monitoring and evaluation. Information specialists on both projects should also be used as advisors. A standard institution building approach which would lock the projects into relying on one local research group is unadvisable. On the other hand, contracting with local groups to work with competent professionals should strengthen local capabilities. I.R.E.S. should be included as a possible source of these services.

4. Given the types of studies recommended above, a mini-computer is unnecessary for the projects. A mini-computer would also create additional management problems which microcomputers will avoid. Therefore, the projects would buy a number of IBM (or compatible) microcomputers with expanded data processing capacity. The machines should be installed in project offices - both in the field and in Kinshasa - and in the local research groups with whom the projects will contract for data services.

ANNEX C

I.R.E.S.: SOME REFLECTION ON CURRENT PREOCCUPATIONS

Projects 098 and 102 were designed as complementary projects having the same geographic sphere of influence, namely, the arable lands bounding the Kasai, Kwilu, and Loange rivers and north of the Kikwit-Idiofa road. 098 was to put in place the transport infrastructure required for improving the agriculture production and marketing of food crops and increase their regional processing. In this way it was envisaged that, as well as direct benefits flowing to the rural population in the form of increased food consumption, income, and mobility, there would be indirect benefits arising from the strengthening of the regional economy. The achievement of the goal and purposes of these projects can only be determined if adequate records be kept of the socio-economic effects of the interventions.

In the original conception of the project, it was decided that 098 should develop an in-country capacity to collect, process, and analyze data, that the monitoring system should be jointly designed by the two projects and that 102 should have primary responsibility for overseeing the conduct of the studies. Discussions were held by the design team and by the Food Studies Group (Spencer, 1984) with a range of organizations in the public and private sectors to determine which of Zairian organizations should be assisted to develop this capacity. The choice was difficult since there was no institution which clearly had the capacity to undertake the required services but ultimately I.R.E.S. was chosen as the locus of this assistance.

The Department of Plan which was the obvious public sector organization with which to work was concerned almost exclusively with macro-level planning and in particular with the formulation of Zaire's first Five Year Plan. The research section within the Department of Transport and Communication (then called GEEP, now GET, Groupe d' Etudes des Transports) and the National Nutrition Planning Centre (CEPLANUT) were concerned with too narrow a range of data collection and analysis. Within the Department of Agriculture and Rural Development, there were two possible collaborating organisations: the Service d'Etudes et Planification financed by USAID and the Direction des Marchés, Prix, et Crédits de Campagne. The quality of work of both of these was relatively high but their focus was also too narrow. The Service Presidentiel d'Etudes, like the Department of Plan, was also predominantly concerned with macro-economic planning, their computers (Hewlett-Packard) were not compatible with those in other Government departments, and there was a question about the priority which would be accorded by them to USAID work.

Outside of the governmental sector, no private consulting firms with the required expertise were identified, which left two possible collaborating institutions in the tertiary sector: the Kinshasa campus of the University of Zaire or the Economic and Social Research Institute (I.R.E.S.) which, while composed of the staff of the University, nevertheless has a separate legal identity from it. The appeal of this sector was that assistance to it would also contribute to the development of the country's human resources. Of these two institutions, I.R.E.S. was considered to be the more suitable. It has the constitutional ability to negotiate contracts with outside bodies, it has some experience in micro-level data collection and analysis and it had a history of serious research work. However, it was clear that, while many of its members had some relevant experience, the institution did not have adequate capacity to undertake the range and depth of studies envisaged for the projects' monitoring and evaluation information system (MEIS). It was therefore decided that 660-0098 should have a technical assistance component as part of its support to I.R.E.S.

Little has changed in the intervening years with respect to the range of institutions available, their potential, and their capacity. No one single organization within the government sector has the mandate to collect the range of data envisaged as required by the MEIS. No single organization in any sector has the capacity to undertake this work without significant support and training.

What has changed is the mission's perception of I.R.E.S. In November 1984, John Holtzman and Chris Pappas wrote a memo critical of the research activities of I.R.E.S. (attached). While much of the criticism in that memo has been pre-empted by the strategy outlined in the Evaluation Report, it may still be worthwhile to tackle some of the more relevant imputations since they have led to a generally negative attitude to I.R.E.S. around the mission.

These observations must be placed in the following context: this is not an argument in favor of selecting I.R.E.S. as a sole source contractor but rather a rebuttal of some less than well-founded or irrelevant beliefs about its capacity and mode of operation. I.R.E.S. has warts and blemishes.

1. Independence

I.R.E.S. has a legal identity separate from the University. It is able to independently enter into contractual arrangements with outside parties. Equipment, funds, or supplies provided to I.R.E.S. cannot be commandeered by the University or any other body or individual.

2. Competence

Holtzman argues that I.R.E.S. does not have the required range of competence. This has never been questioned. The 098 Project Paper assumes that competence will have to be developed and provides for that. It should be noted however that since the writing of the Project Paper, I.R.E.S. has increased its practice of employing post-graduates as full time research assistants and has undertaken a wide range of studies commissioned by various Government of Zaire departments or by donor organizations. It is also in the process of reorganizing its structure to include a Data Processing and Analysis Unit, without external assistance.

3. Field Experience

Despite budgetary constraints on I.R.E.S. in recent years, researchers have managed to undertake field work, train enumerators, and supervise and direct studies. This work is available to be assessed. One problem which might arise in this context is that the use of university students as enumerators should not determine the timing of field studies. Research objectives and rural seasonality must be the determining factor, not university vacations.

4. Commitment of Staff

The average teaching load at the University is 150 hours per year. This allows staff time for extra-curricula commitments. I.R.E.S. throughout its history has shown a serious commitment to macro and micro level research and there is no reason to doubt that this has changed.

5. Commitment to USAID

One insinuation has been that I.R.E.S. will speedily lay aside USAID work if more lucrative contracts were offered. The contracting mode outlined in the report is a two-edged sword: I.R.E.S. may lay aside USAID work but then USAID can lay them aside. It is a protective strategy.

6. Quality of Work

There is general agreement that, in recent years, the work of I.R.E.S. members has been uneven. The contracting mode, that is, the performance criterion for selection, is again a means of protecting the quality of the work.

7. Duplication of Efforts

I.R.E.S. is, in a sense, bedevilled by its own history. In its early days, it was an institute of some excellence that did pioneer work in household budget surveys, retail price indices and other fields. With its budgetary demise, it has clung to this past as a source of merit since it has not had the wherewithal to rise from its ashes with different areas of expertise.

8. Urban-based

All researchers, whether from the Department of Agriculture, CEPLANUT, I.R.E.S., or elsewhere, are de facto separated from the rural population they are investigating by virture at least of their education. The ability to put a rural population at ease in a data collection situation is a direct function of training. It may or may not also be a function of personality, sex, and ethnicity. All this has to be taken into account in recruitment for, design and management of, and training for field work.

At this stage it is probably worth saying that I.R.E.S. has some strengths. Most importantly, it is not limited by its mandate to a particular field, be it nutrition, agricultural statistics, transport or whatever. It has a wide range of expertise among its members and can draw on other disciplines (history, law, the social and political sciences, geography) and other research institutions on campus (CIEDOP) as well as in the private sector. It itself could sub-contract to smaller private research groups (BUREG, for example). Historically, it had a proven and respected capacity to do research work of high quality which indicates its present potential. It is self-reflexive, that is, it is aware of its own limitations and would appreciate outside assistance in strengthening its capacities.

The attempt to lay these ghosts, however, still leaves open the question of the best organization or organizations through which USAID could work. The strategy outlined in the report leaves USAID in the felicitious position of now being able to choose between a number of organizations without finding itself stranded with an albatross a. nd its neck. The performance criterion of contracting itself provides the incentive to produce work in a timely and competent fashion.

The purpose of this annex has been to re-instate I.R.E.S. into the field, in the belief that there are no institutions without equivalent flaws or other limitations, that there are few if any with the same flexibility and potential and that there may be others who are its equal. Holtzman's memo, despite current impressions, reaches the same set of conclusions.

Memorandum 11/1/81

ANNEX C

To : H.L. Braddock

From : John Holtzman, SFMA and Chris Pappas, DEO

Subject : IRES research activities and potential as a monitoring and evaluation center for 098 and 102

Retail Price Indices for Kinshasa.

IRES has collected retail price data in Kinshasa since 1964, and publishes three price indices for Kinshasa. One of these indices, the indice des prix aux marches, is a non-weighted market price index based upon a basket of 61 items, including 40 types of food, 10 items of clothing and 11 miscellaneous items. The weighted indices are calculated for two consumer groups - a high income group assumed to buy only in stores and a low income group assumed to buy only in markets. The weights for the two indexes were calculated from data collected on household expenditure patterns in Kinshasa during a 1969 survey.

The IRES weighted index is thought to be less accurate than the INS weighted cost of living index for Kinshasa, because of the smaller basket of goods used in their calculation and the use of weights established from data collected during an earlier survey. IRES data for the period June 1979-May 1980 are critically compared to data collected by a Canadian research team (fielded by the Société de Développement International Desjardins) as part of the CECOPHANE intervention (see Commercialisation des produits agricoles du Nord-Est du Zaire, Tome IV, Annexe 2, 1981). CECOPHANE found that the IRES prices were higher than their prices for four commodities (manioc cossettes, potatoes, beans and onions). This may have been because CECOPHANE actually purchased commodities in the markets while IRES asks sellers what the price is for standard selling units. Since it is common for sellers to add a little extra to standard units of sale when consummating a transaction, actually purchased food would be less costly per kilogram than unpurchased piles or standard units. CECOPHANE also found that IRES prices for manioc cossettes averaged 28% higher over the twelve month period. Moreover, the IRES price data exaggerated inflation over the period of comparison for three of the four commodities. The inflation rates for manioc cossettes were the exception, rising only 1.3% according to IRES data and 12.6% using CECOPHANE data over the one year period.

We had an opportunity to speak with an assistant (lecturer) at IRES who supervises the collection of retail price data. There are presently only four enumerators who record prices for retailed foodstuffs in Kinshasa and weigh produce retailed. IRES claims that these enumerators cover 16 of the 24 markets in Kinshasa. They collect data at these markets twice a week during four weeks of each month. Each enumerator covers four markets a week. The assistant claims that more than one observation is obtained for foodstuffs. Both retail prices and the weight per unit are recorded. Before 1974 IRES employed ten enumerators solely in price data collection in Kinshasa.

In order to assess the validity of alternative sources of agricultural price data collected in Kinshasa, it would be useful to accompany enumerators

to the markets to see how they are collecting the data and whether or not and how accurately they weigh the produce. Scales may be out of balance. There may also be too few observations for each item in the basket. Comparative analysis of the available price series, including the INS series for the past five to ten years and data collected by the Direction des Marchés, Prix et Crédits de Campagne since January 1983, would also be useful for evaluating data validity.

IRES is still publishing price indices in its Bulletins Mensuels, to which there are some 250 subscribers. As noted by the Institute Director, funds from these subscriptions are IRES's only steady source of revenue. The GOZ provides little in the way of support. The most recent bulletin is for August 1984. The bulletins contain only price indices, calculated for individual agricultural products, groups of agricultural products (such as starchy staples, grains, vegetables, oilseeds) and for all food products. The price indices use 1964 = 100 as the base. Since inflation of 50-100% per year has been common in Zaire since 1964, the indices now are in the tens of thousands. It would be far more useful to bulletin subscribers if the raw data (actual price observations) were reported and the indices were periodically updated. Using a month in mid-1984 as the base = 100 is recommended. This is several months after the effects of the September 1983 devaluation washed through the Zairian economy and became dampened.

IRES recognizes that its price indices use a base which is far out of date. In December 1983 IRES prepared a proposal to update the price indices for Kinshasa. The proposal calls for supplementary funds of nearly 1.2 million Zaires to launch a household budget survey. IRES has not received any assistance to date. The Institute Director is hoping USAID will finance the survey. Given USAID's decision to allocate over two million Zaires in counterpart funds to a 1985 INS household budget survey for Kinshasa, funding the IRES survey would be unnecessarily duplicative.

Cahiers Economiques et Sociaux

IRES publishes a quarterly journal of articles on economics, demography, finance and agricultural development, written principally by its own researchers. It costs 90,000 Zaires per issue to print the journal, and IRES has not published an issue since Volume XX, No. 2: Janvier-Juin 1983. Articles have been prepared for two other 1983 issues, but IRES lacks the funds to print the journals.

Most of the articles appearing in the Cahiers are desktop, research pieces which synthesize findings from earlier studies, government documents and research findings from other African countries. IRES researchers do not receive regular and assured funding for conducting research, particularly field research. They have to solicit funds from donor organizations for special studies. When donors make funds available for special studies, the senior IRES researchers supervise the work but typically assign assistants and students to do the field work. The senior staff is usually busy with teaching and administrative duties at IRES, preparation of journal articles (whose publication is necessary for promotion), advisory/consulting posts in government ministries, and other matters.

Monitoring and Evaluation of 028 and 102

Food Studies Group Proposal. In a detailed and comprehensive proposal for the establishment of a monitoring and evaluation scheme for USAID projects 093 and 102, the Food Studies Group of Oxford University identifies IRES as the institution to serve as the repository of a comprehensive data base. The Food Studies Group recommends that USAID purchase a Hewlett-Packard minicomputer with eight workstations that would be used to build a data base of agricultural production, household expenditure and sales, commodity flow and agricultural price data. These data would be collected principally by other agencies, including the 102 management unit, although IRES would continue to collect price data in Kinshasa. Since these other agencies, particularly DOA and CEPLANUT, are using different computers and hardware configurations, problems of hardware compatibility would arise.

Capacity of IRES to Conduct Rural Surveys. There is merit in the Food Studies Group proposal, but it is uncertain whether IRES researchers are willing to become involved in field work in rural Bandundu. An important component of the ongoing M & E will be to carry out agricultural and household consumption, income and expenditure surveys at the village level. Most of the IRES researchers have not done this type of research, having been trained abroad in economics and statistics (or at the University of Kinshasa). Their comparative advantage probably lies in synthesizing findings of other researchers and in analyzing survey data collected by others.

In order to get planning for M & E of 098/102 underway, IRES has formed a six person working group to analyze research and materiel requirements. A "pre-étude" will be prepared for USAID by the end of November. The working group is chaired by the Director and includes Tiker Tiker as the agricultural specialist, Mukende as the price data collection and analysis specialist, Mupanda as the computer scientist, and specialists in development problems and development planning. The Director said that none of the members of this group have demanding outside commitments except for Tiker Tiker, who is UNDP advisor to the Ministry of Planning. He also claims that it is possible to assign senior researchers to Kikwit for a year or more of intensive research. Other staff teach courses in the researchers' absence. The Director also said that IRES researchers typically teach all of their classes during one semester of the academic year (which has two semesters). During the semester staff members are not teaching, they are able to spend up to two months in rural areas doing research. Despite these claims, it is junior researchers (assistants) who have been doing all the field work for the USAID funded Urban Indicators Study. While it is probably unrealistic to expect senior IRES researchers to conduct research at the farm level, they will need to provide close and regular supervision of the agricultural and household consumption, income and expenditure surveys if IRES actually carries out these studies. The necessary supervision is best done by periodic visits to the project area and not by directive from Kinshasa.

It is also legitimate to raise the question of whether IRES researchers (both junior and senior) are suitably trained to do micro-level field research in rural areas. They may be less likely than researchers from the DOA or CEPLANUT to approach rural people comfortably, in a way that puts both informant and researcher at ease. Putting informants at ease in a difficult research setting such as rural Bandundu will be of paramount importance if USAID expects to collect good data. The excellent discussions of problems

[illegible] during the Small Farmer Survey by Pashi Lumuna, Beresi Mpey and the other enumeration team leaders clearly show how tough it will be to collect good data from rural people who are highly skeptical of the purposes and uses of survey research, and of the intentions of highly educated, urban-based people (particularly if any association with the GOZ is suspected).

In addition, there are only four IRES researchers who claim to specialize in problems of agricultural development. Tiker Tiker is the most prominent researcher in this group. His publications in the Cahiers Economiques et Sociaux reflect an agricultural planner's perspective, however, rather than the skills of a researcher interested in collection of data in rural areas and microlevel analysis of farming and marketing systems. While Tiker's perspective is suitable for drafting planning documents for the DOP or the DOA, it is not particularly useful for microlevel data collection and analysis. Another of the four researchers interested in agriculture is Kika Mavunda, who may become involved in the 098/102 M & E. We did not have an opportunity to speak with Kika, but we did review an article published in a 1980 issue of the Cahiers Economiques et Sociaux on land tenure and land use practices of an ethnic group in Bandundu. This study was a review of the literature and desktop piece, showing no evidence of any field work.

While Tiker Tiker will not actually be conducting rural surveys, he might be involved in the design of survey instruments, supervision of survey research, and the analysis of the survey data. Without having carried out rural surveys, these are difficult tasks, fraught with all sorts of potential methodological pitfalls. Expatriate assistance may be necessary for these tasks. Ideally, returned MSc candidates in the Bureau d'Analyse Economique of the Service d'Etudes would become involved in survey design and supervision, as well as informal interviewing in the project area. Presently the DOA does not appear to be getting much out of its returned MSc holders. They have produced a useful set of Masters theses on various aspects of agricultural development in Zaire, under direct supervision of Dr. Jack Thompson of the University of Georgia. With the incentive of completing an MSc degree no longer motivating the degree holders, on-the-job performance has been spotty and uneven. As an example, the nation-wide cassava production and marketing study has been languishing in draft form for well over a year. Despite USAID primes, the 4000-4500 Zaire salaries paid to MSc holders in the Service d'Etudes do not buy a lot of their time. In fact, higher salaries paid by SOFIDE and international organizations are attracting away more and more of the returned MSc degree holders over time. Finally, the firefighting style of the DOA makes it difficult for Service d'Etudes personnel to focus on research, or any particular task for that matter.

IRES and its Relationship with the University

As a research institution within the University of Kinshasa, IRES may face difficulties in controlling access to resources provided by USAID. The University is a cash-starved GOZ institution which will certainly welcome any infusion of USAID funds. Yet it is uncertain whether IRES will be able to protect these funds and limit use of any computer facilities for 098/102 data processing and related uses.

IRES used to have access to an IBM 360 mainframe computer, which is no

longer operating. This installation served the entire faculty of Economic and Social Sciences and not just IRES. There is a separate computer science department within this faculty, which presumably had the most ready access to the IBM 360. Not only was the computer a research tool, but it was used in training computer science students. It may also have been used to earn extra money from firms needing computer services. It is reported that government agencies owning computer facilities in Kinshasa commonly use their computers for unauthorized commercial purposes.

Before USAID buys a minicomputer for IRES, it will be imperative to define in detail computer access rights of the IRES M&E team for 098/102, other IRES researchers, the computer science department, and other University users. That is, time-sharing rights and responsibilities will have to be specified as part of USAID's agreement to supply the mini. Otherwise, the minicomputer may be used largely for unintended purposes, which will greatly delay processing of the 098/102 data.

However access rights to the minicomputer are specified, IRES will clearly have to share the installation with other users at the University (and perhaps outside the University). Some means of control over such uses needs to be devised if the 098/102 data are processed on a timely basis. It would be useful to map out data entry and processing needs over the next few years so as to anticipate peak periods of use, during which the 098/102 M&E team would receive preferential, if not exclusive, access.

Preliminary Recommendations for IRES Monitoring and Evaluation

If USAID decides to purchase a minicomputer for IRES and provide funds for long-term monitoring and evaluation of USAID projects in Bandundu, then expatriate assistance to IRES in data collection and analysis will probably be necessary. The Food Studies Group calls for two long-term expatriate advisors to IRES. It would be desirable if both advisors had background in agricultural economics and statistics. One should have experience in establishing and managing a large data base in developing countries, and would specialize in the minicomputer system design and management, and in organizing data entry and processing for monitoring and evaluation. The other advisor would have experience in collecting and analyzing survey data in Africa, and would concentrate on survey design, sample selection, survey monitoring and analysis of survey data.

In addition, the field work necessary for generating the data base should be done by individuals trained in data collection in rural areas and having a good knowledge of agricultural production practices. Possible candidates for field work include the team leaders trained under USAID's Small Farmer Survey, as well as personnel from CEPLANUT, DMPCC, and the Bureau d'Analyse Economique who are experienced in carrying out rural surveys. If expatriate assistance is sought for collecting farm level data in rural areas, several American universities, such as the University of Florida or Michigan State University, could provide well-trained graduate students.

Another important consideration is the compatibility of the different hardware systems used by different agencies in the GOZ. The agricultural price and flow data are being collected by DMPCC and processed by the DOA, Division de Statistiques on Apple equipment. These data would form an important part of the IRES data base for 098 and 102. USAID is planning to

hire a consultant to review problems of computer system hardware and software, as well as compatibility with other systems in Kinshasa. Dr. Frazier would be an ideal candidate for such a task, since he set up the network of Apple micros in the Division de Statistiques of DOA.

If the IRES data base includes DOA and INS data, as it most likely will, arrangements for information - sharing will need to be worked out. It is important to recognize that all these organizations are competing for scarce donor resources and hence have no incentive to cooperate, unless USAID applies pressure. Fortunately USAID does have leverage in that it is funding the INS budget survey for Kinshasa, the establishment of a DOA data base, and the IRES studies. DMPCC receives no USAID funding but may receive assistance under the Cassava Marketing Assessment. In order to coordinate all the data gathering and analysis activities pertinent to the M&E of 098/102 and the cassava marketing assessment, representatives of USAID and the principal GOZ agencies should form a task force which meets quarterly to discuss research findings and problems in data gathering and analysis.

Other Possible Institutions for 098/102 Monitoring and Evaluation

While IRES is one of the local institutions with some capacity for monitoring and evaluating projects 098 and 102, it is not the only institution. The Bureau d'Analyse Economique of the Service d'Etudes is another possible institution. It has been supported by projects 052 and 070 since 1977. It has the largest core group of agricultural economists in Zaire, who have prepared a set of quite good MS: theses on different aspects of Zairian agriculture. The type of applied research that they have done has developed in large part the kinds of research skills needed for M&E of 098/102. One way to retain the MS: degree holders in the Service d'Etudes would be to provide further attractive research opportunities as part of the 098/102 M&E.

Another local institution with demonstrated capability for carrying out special studies is the Service Présidentiel d'Etudes. Formed in 1974, the SPE has conducted studies in most regions of Zaire on natural resource development, agro-industrial development, transport and infrastructural development, economics, finance and management. Among the four divisions of the SPE are a Division of Economic Studies and a Division of Programming, Geological Studies and Agronomic Studes. The latter unit is equipped with an H-P minicomputer. While the SPE claims to do studies in agriculture and marketing, it appears as if their strongest capabilities lie in studies of industrial, mining sector, agro-industrial and infrastructural development. Nevertheless, SPE reports having done studies of:

1. Integrated rural development in Mweka (Kasai-Occidental)
2. Artisanal fishing on Lake Tanganika
3. The feasibility of road construction for OR
4. Development of western Zaire, under FED financing
5. The national transport and distribution system
6. Banana cooperatives, and
7. The effect of fuel prices on the transport sector

It may make sense to approach other local organizations regarding the 098/102 M&E. Their capabilities remain, of course, to be evaluated. And many

of the problems [illegible] probably also working with the Bureau d'Analyse Economique and SPE.

Further Information Needs

1. Composition of IRES 098/102 M&E team.

I asked the Director to prepare information about the expected M&E team members, including their position (professional unit), research interests, publications, responsibilities to institutions outside IRES, and training (long and short term). It would be useful to have this information for the assistants as well, since they will be actually doing field research. Assistants are top-performing University of Kinshasa graduates who each prepared a memoire as university students. Copies of these memoires for USAID review would be helpful.

2. Research Proposal

If USAID awards IRES the M&E contract, then it may be necessary to require IRES to prepare a detailed five year research proposal. This would include:

- quarter by quarter research implementation plan, which shows phasing of research activities, reporting requirements and incremental funding needs.

- IRES M&E team staff commitments by quarter, which specify the proportion of each member's time devoted to the M&E effort (or the number of weeks/months devoted per quarter).

- Specification of data analysis and reporting requirements by quarter (or year), and external review procedures. What types of analyses are expected, who will do the analysis, and what will be the nature of the review process?

3. Separation of M&E from Other IRES Activities

IRES is an institution in great financial difficulty which may perceive USAID assistance as unconditional support for reviving the Institute. USAID funds should not be used for the collection, analysis and publication of Kinshasa retail price data, or for the publication of the Cahiers Economiques et Sociaux, unless USAID agrees to this. Although IRES has collected retail price data for 20 years, INS also performs this function and receives regular support from the GOZ.

SCOPE OF WORK
FOR THE EVALUATION OF
THE AGRICULTURAL MARKETING DEVELOPMENT PROJECT (660-0098)

I. PROJECT BACKGROUND

The Agricultural Marketing Development Project was designed to reduce the economic distance between food crop producers in the project area and commercial markets. The project will attain this goal by improving navigational conditions on the Kasai and Kwilu Rivers, increasing the river transportation fleet, and improving rural road and bridge access to ports and to market roads. The Project Assistance Completion Date (PACD) is July 31, 1994.

II. EVALUATION PURPOSE

This initial evaluation of the project has several purposes. First it is a process evaluation (early project review) to determine if appropriate elements are in place for effective and timely project implementation. Second, the evaluation will examine any new opportunities for attaining project objectives that may have arisen since the project was originally designed, and determine whether these opportunities for action are within the Project's capacities. Third, the evaluation will make recommendations for any necessary amendment to the Project Paper.

III. EVALUATION TEAM AND ITINERARY

The evaluation team will comprise a Team Leader, a statistician, and an engineer. The Team Leader and the engineer will visit project sites in Idiofa and Semendua, as well as conduct interviews with project personnel, Office des Routes, and Régie des Voies Fluviales (RVF) in Kinshasa. The statistician's work will be based in Kinshasa. USAID 660-0098 and 660-0102 Project Managers will serve as resource persons to the team.

IV. EVALUATION REPORT

The Team Leader will submit a final evaluation report by the end of his contract. This report will be limited to 15 pages and prefaced by an executive summary of no more than two pages. The evaluation report will address the questions and issues listed below, as well as pertinent evaluation issues listed in the Zaire FY87 ABS.

A. Roads and Bridges. The evaluator will examine the project's road component and determine if this section in the Project Paper should be revised to facilitate the implementation process.

1. How much does cement stabilization of hillside slopes cost? Is it financially feasible for this project? Can technical expertise be found locally to do such work?

2. To what extent does the project team need to conduct soil studies in the project area? For what purpose? Is there enough information available on soils, surfacing materials and aggregates to warrant eliminating the soil studies from the Project Paper?

3. Examine the budget for this component. Make recommendations for any desirable or necessary budget revisions.

4. How is the road and bridge element of the Project to be implemented? Has Office des Routes the capacity to function as the Host Government Contracting Agency? Will NGOs be receptive to the idea of working under subcontracts with Office des Routes?

5. How should locations for bridge work be selected? How can this be done in collaboration with Project 660-0102?

B. Waterways. The evaluator will examine the project's approach to improve the navigational conditions in the project area, and will determine whether or not the proposed interventions will meet project objectives.

1. Examine the Developpement Progrès Populaire (DPP)'s workload. Will this workload permit DPP to effectively and efficiently implement the river transportation activities outlined for it in the Project Paper?

2. If boat construction has started at the Bosobe workshop, assess the quality of the work being done. Is the activity on schedule?

3. Examine assistance to RVF. What preparations have been made to do the hydrographical study? Have necessary preparations been completed to procure spare parts for RVF's boatyard machinery? Are these activities on schedule?

C. Information. Projects 660-0098 and 660-0102 were designed to collaborate on data analysis for the project area: Project 660-0098 was created to build a capacity for data analysis; while Project 660-0102 was designed to conduct baseline and other project area data collection. The evaluator will record relevant developments concerning the information component which have taken place since the Project Paper was written; in light of these developments, the evaluator will recommend any appropriate revisions for the Project's information component.

1. Re-examine the Project Paper's approach to implementing the information component. What should a counterpart's role be? Is it advisable for the project to work with just one counterpart? What other choices exist? After addressing these questions, suggest preferred working relations for this component of the project.

2. Clarify the types of studies to be conducted under the Project. Determine if these studies can be coordinated with the work under Project 660-0102 to be mutually beneficial.

3. Discuss the relationship between Projects 660-0098 and 660-0102 information gathering, processing, and analysis.

D. Project Management. The evaluator will discuss any constraints which may impede project implementation or preclude attainment of project objectives.

1. Determine if the project is on schedule. Have arrangements for procurement of commodities, services, and technical assistance been made in an efficient manner?

2. Suggest how the Project's accounting system might best be established.

3. Determine whether sufficient preparations have been made for the technical assistance team's arrival. Recommend any additional facilitating steps that might usefully be taken.

E. Project Collaboration. Make recommendations for future collaboration between Projects 660-0098 and 660-0102 as well as with other AID-assisted projects and activities in Bandundu region.