AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: C (A = Add, C = Change, D = Delete) | Amendment Number: 3 | DOCUMENT CODE: 3

2. COUNTRY/ENTITY: Zaire

3. PROJECT NUMBER: 660-0098 DURSO 778

4. BUREAU/OFFICE: Africa | 06

5. PROJECT TITLE (maximum 40 characters): Agricultural Marketing Development III

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 12 | DD 31 | YY 92

7. ESTIMATED DATE OF OBLIGATION (Under "B." below, enter 1, 2, 3, or 4)
A. Initial FY 84 | B. Quarter 2 | C. Final FY 89

8. COSTS ($000 OR EQUIVALENT $1 = 2275)

A. FUNDING SOURCE	FIRST FY b. FX	FIRST FY C. L/C	FIRST FY D. Total	LIFE OF PROJECT E. FX	LIFE OF PROJECT F. L/C	LIFE OF PROJECT G. Total
AID Appropriated Total						
(Grant)	( )	( )	( )	13,000		13,000
(Loan)	( )	( )	( )	(13,000)	( )	(13,000
Other U.S. 1.				( )	( )	(
Other U.S. 2.						
Host Country						
Other Donor(s)					8,400	8,400
TOTALS				13,000	8,400	21,400

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	C. PRIMARY TECH. CODE 2. Loan	D. OBLIGATIONS TO DATE 1. Grant	D. OBLIGATIONS TO DATE 2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	E. AMOUNT APPROVED THIS ACTION 2. Loan	F. LIFE OF PROJECT 1. Grant	F. LIFE OF PROJECT 2. Loan
(1) ARDN	130	100		8.000				8,000	
(2)	130	100				5,000		5,000	
(3)									
(4)									
TOTALS								13,000	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): 140 | 010 | 060 | 820

11. SECONDARY PURPOSE COD

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	BR	BS
B. Amount	4,000	3,000

13. PROJECT PURPOSE (maximum 480 characters)

To improve and expand the access of central Bandundu farmers to commercial markets.

14. SCHEDULED EVALUATIONS: Interim MM 07 YY 90 | Final MM 10 YY 92

15. SOURCE/ORIGIN OF GOODS AND SERVICES: ☐ 000 ☐ 941 ☐ Local ☒ Other (Specify) 935

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a 47 page PP Amendment)

To increase authorized Life of Project (LOP) funding from current level of $8,000,000 to new level of $13,000,000 and to bring forward the Project Assistance Completion Date (PACD) from July 31, 1994 to December 31, 1992. Project purpose remains unchanged.

17. APPROVED BY
Signature: Dennis M. Chandler
Title: Dennis M. Chandler, Director, USAID/Zaire
Date Signed: MM 05 DD 10 YY 89

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: MM DD YY

AID 1350-4 (8-79)

TABLE OF CONTENTS

I. PROJECT RATIONALE

A. Original Project Concept

The Agricultural Marketing Development III Project (660-0098) was designed during 1983-84 and authorized on July 30, 1984. The life of project was 10 years, with the funding level for project activities and commodities through 1988 set at $8 million. The reason stated in the original Project Paper (PP) for undertaking only limited financial planning of the anticipated 10-year project was to "allow an interim appraisal of the effectiveness of various [project] elements and of their appropriateness, and . . . [to] permit the possible addition of other components not included in the plan for the first four years." This approach was part of the rolling design project philosophy popular at USAID at that time.

The technical assistance team responsible for management of project activities was selected and team members began arriving in Zaire in June 1986. A little more than 30 months have now elapsed since the Project Management and Monitoring Unit (PMMU) took up the task of implementing 098.

The program goal as stated in the original PP was "to raise the standard of living of the rural population of central Bandundu." This goal was shared in a very direct way by the complementary project to 098, the Area Food and Market Development Project (660-0102), and in a more general sense, by the Bandundu 026 and 028 road rehabilitation projects, Agricultural Marketing Development I and II.

As originally conceived, Project 098 was to be " . . . exploratory and innovative . . . ." The Project identified its primary purpose as being "to reduce the economic distance between the food crop producers in central Bandundu and commercial markets." Project elements were separated into three categories:

Assistance to River Transportation
Assistance to Road Transportation
Project Monitoring and Evaluation

The initial 42 months of technical assistance in these three areas (ending with the termination of the present technical assistance contract in December 1989) will have resulted in the following outputs, which provide the basis and background for subsequent 098 interventions:

River Navigation:

- informational tour of U.S. river transport facilities by eight GOZ officials;
- hydrographic survey of the most critical rocky bottleneck of the Lediba Pool located on the Kasai River, which links the project area to the Zaire River and Kinshasa;
- procurement of spare parts for the rehabilitation of navigation equipment at the central boatyard in Kinshasa of Régie des Voies Fluviales (RVF), the national inland waterways authority;
- technical assistance to RVF in the form of a boatyard foreman;

- rehabilitation of RVP operational stock and equipment including river vessels, cranes, motors, machine shop and testing equipment;

- procurement of modern hydrographic equipment;

- short-term hydrographic assistance; and

- assistance in providing appropriate engineering techniques for the design and construction of fixed river markers.

Boats:

- design, construction, testing and promotion of two wooden boats based upon the traditional Zairian baleinière. The 25-ton and 15-ton prototype vessels represent two sizes in a class of wooden boats ranging in capacity from 15 to 40 tons;

- technical assistance in the form of a naval architect and expert boat builders; and

- river marketing trial organized in an initial joint venture with Project 102, with a traditional wooden baleinière being used to shuttle agricultural goods to assembly points on the Kasai River for bulk transport by barge to the Kinshasa markets.

Roads:

- construction of 19 new bridges with spans ranging from 6 to 25 meters, replacement of embankments and bridge approaches, and the installation of 25 culverts, by the Jesuit mission at Sia;

- institutional strengthening of Développement Progrès Populaire (DPP) and the construction of embankments, ramps, dikes and culverts, including road works needed to improve access to bridges built under the recently completed PVO Economic Support Project (660-0097); and

- financial and technical assistance to Office des Routes (OR) for applied research activities on alternative road surfacing materials as a substitute for the sands found in central Bandundu.

Impact Assessment and Information:

- Project Baseline Study:

  - traffic counts conducted over a 13-month period;
  - vehicle operating cost tests and surveys;
  - market survey; and
  - river transportation assessment survey;

- road inventory and updated project area maps;

- applied river marketing trials; and

- cooperation and collaboration with Project 102 information activities.

B. Background of the Project Paper Supplement

1. Update On the Problem: Farmer Access to Markets

The central Bandundu farmer operating above subsistence level has lacked the incentive of economic proximity to assembly and off-loading points for the transportation of agricultural produce to the primary Kinshasa market and secondary markets in the east. A dense network of river and road corridors in Bandundu Region has been in existence since the colonial period, but the political and economic conditions following independence led to a steady degradation of this extensive transportation system due to a lack of maintenance of these facilities. This decline can be attributed to a large degree to the limited means available to the central GOZ for adequately funding infrastructure maintenance programs.

It was assumed in the past that the rehabilitation of key roads and financial assistance for the improvement of inland waterways would lead to a general reordering of GOZ priorities, with the maintenance of infrastructure being moved closer to the top of a long list of nationally important interventions. Unfortunately, the continued decline in value of the zaire; the slow recovery of depressed copper prices; an underdeveloped private sector; disincentives and difficulties related to the importation of heavy equipment, vehicles and spare parts; and problems linked to the reluctance of the GOZ to raise fuel prices and thereby increase the amount of fuel tax revenue available to the national highway and river authorities have contributed to the worsening transport situation.

The original PP described in detail the problem of deteriorated access to markets for the farmers of central Bandundu. Three other USAID projects already in place - 026, 028 and 097 - were involved in rehabilitating specific area transport elements. Project 026 was rehabilitating 370 Km of road between National Highway Number 1 and the ports of Panu, Mangai and Dibaya - Lubwe on the Kasai River (a task now almost finished). Project 028 intended to rehabilitate 80 Km of road between Kikwit and Idiofa (which was not done) and to establish in Lubumbashi a training facility for OR (which was completed). The third project, 097, the PVO Economic Support Project, had as one of its components the now completed construction of 9 bridges and the installation of 200 culverts by a Zairian PVO (DPP) in the central Bandundu area. But despite some successes under these projects, major constraints remain, particularly with regard to sustainability and maintenance.

2. Review of the General Solution: Improved Access

The clear, direct correlation between the need for improved farmer access to markets and the actual improvement of such access is skewed by the presence of a large number of small, remote agricultural centers joined to potential markets by virtually untraveled, deteriorated feeder roads and low-volume primary link roads. The development of waterways through capital investment in ports and the clearing, charting, and marking of channels, as well as the refinement of the design of the transport vessels themselves, is hindered by the disincentives imposed by transit delays, unpredictable and unreasonable taxation, and loses of goods due to theft. Many small traders have only limited reserves of capital, which limits their interest and ability to try using improved wooden boats.

Certainly, one key to improving the socio-economic conditions of central Bandundu's population is the development of a refurbished, maintainable river and road transportation network. Another key is the development of successful agricultural technology. After a decade of USAID agricultural marketing activity in the area, Project 098 is in the position of being able to benefit from identification of the problems and bottlenecks encountered in the past and to try a variety of approaches for overcoming difficulties.

3. Desired Result: Raising the Standard of Living

In order to assess the direction and degree of its impact on Bandundu Region, Project 098 has taken a baseline study measuring traffic volumes, vehicle operating costs, levels of commercial activity, and river transportation volumes. The data in the baseline will be updated, as required, in order to determine if the goal of raising the standard of living of the rural population of central Bandundu is being attained.

Project 098 activities are geared to working to the maximum extent possible with willing and viable governmental and non-governmental organizations in the project area to ensure that project inputs become the stepping stones to economic development in the region, including increased sustainability of cooperating organizations and institutions. The political and economic climate of Zaire has undergone a significant change since the design of the project began in 1983. The GOZ institutions involved in project activities have been beset by severe financial and managerial difficulties. Alternatives to the unwieldly, centralized government parastatals need to be tested at the same time that the parastatals themselves take measures to improve their efficiency and effectiveness. For the parastatals, this will also mean taking a hard look at their present mandates and trying to bring resources and responsibilities into line.

Project 098 will encourage greater private sector participation in both river and road transportation. Likewise, NGOs and PVOs will continue to carry out interventions essential to project success.

C. Amendment Rationale

1. Development Partners:

The project rationale cited in the 1984 PP remains substantially applicable to this PP Supplement. In particular, the rationale for selecting relatively densely populated central Bandundu as the area to receive USAID assistance in agricultural marketing development remains consistent with both USAID and GOZ sectoral priorities -- agriculture and transportation. Past experience in the region has served to screen development organizations and GOZ institutions, with the result that a number of motivated and viable local development partners have been identified.

USAID will work closely with the Bandundu Governor's office; DPP; Combilim, DPP's agricultural production and extension service; and missions at Sia, Lusekele and elsewhere, as well as with local credit organizations such as the COOPECs, and private traders, haulers, and lumber exploitation and construction companies to attain project goals. Project activities will also include continued technical assistance to RVF in the area of hydrography. Support for select road rehabilitation and maintenance activities will be provided under subcontracts to nongovernmental entities such as missions, PVOs and private firms, and under Fixed Amount Reimbursement agreements to Office des Routes (OR) and the Service National des Routes de Desserte Agricole (SNRDA). These interventions will include the rehabilitation of the water crossings on the former 028 project road linking National Highway Number One with the agricultural center of Idiofa, which is DPP's center of operations.

USAID collaboration with nongovermental entities in the past has contributed to the rehabilitation and maintenance of hundreds of kilometers of Bandundu roads, the construction of dozens of bridges and ferrys, and the installation of scores of culverts, as well as the general improvement of area waterways through river surveys and channel marking. However, Bandundu Region has one of the densest rural transportation networks in sub-saharan Africa, consisting of thousands of kilometers of earth roads and navigable waterways, and much remains to be done to improve and expand the access of central Bandundu farmers to commercial markets.

2. The Marketing Problem:

Kinshasa is the principal market for agricultural produce grown in the project area. In recent months, the price of a sack of manioc has nearly doubled in Kinshasa, though little if any of the increase has been passed on to Bandundu farmers. The price rise is attributed mainly to rising transportation costs due to the rapidly deterioriating paved highway connecting Bandundu to Kinshasa, chronic inflation, and an increase in the price of gasoline. Improved transportation networks and improved agricultural practices represent only part of the solution to the economic problems faced by the rural poor in Bandundu. Steadily rising inflation, high interest rates and a lack of credit contribute to a general scarcity of goods and services that places additional constraints on economic growth.

II. PROJECT DESCRIPTION

A. Introduction

In adherence to Mission strategy, the amended 098 project continues to focus on Bandundu Region, one of two areas in Zaire, the other being Shaba, where A.I.D. assistance is concentrated. By targeting agricultural, health and transport interventions, enough resources are brought to bear on a limited area that the chances of A.I.D. assistance having a substantial development impact are significantly increased. In addition to transport activities financed under Projects 026, 028 and 097, A.I.D. projects in Bandundu Region include, in agriculture, Project 102, and in health, Basic Rural Health II (660-0107), Family Planning Services (660-0094), and Combatting Childhood Communicable Diseases (698-0421). In addition, two other A.I.D. projects have considerable potential for making an impact on Bandundu Region - the Small Project Support Project (660-0125), to fund NGO/PVO activities, and the Private Sector Support Project (660-0120), to increase the amount of credit available to small- and medium-sized enterprises.

B. Program Goal

The program goal is as worthwhile and as realistic today as it was when the project was conceived: "to raise the standard of living of the rural population of central Bandundu." Improvements in the standard of living will be measured by income, agricultural production and access to health care. Attainment of the program goal requires balanced regional development, with favorable changes in a number of variables affecting the welfare of the population. GOZ policies at the national level must be changed, while the capabilities of the regional governments are increased. The GOZ must fully implement its Structural Adjustment Program with the IMF and seriously undertake a decentralization policy putting more decision-making authority in local hands. Growth of the rural economy must be encouraged by the provision of better transport the introduction of improved goods and the spread of financial institutions. Rural-urban linkages must be strengthened, giving the rural economy an opportunity to diversify and expand.

C. Project Purpose

The Project Paper Supplement has changed the wording of the Project Purpose--while keeping the intent the same--from "to reduce the economic distance between the food crop producers in central Bandundu and commercial markets," to "to improve and expand the access of central Bandundu farmers to commercial markets". The new wording more clearly expresses what the project is trying to achieve and ends the confusion about what is meant by economic distance.

Improving and expanding farmers' access to markets should help reduce direct and indirect costs to farmers, leading to an increase in farmers's cash incomes. Transportation costs should fall as road transport improves and expands and as the spread of improved wooden boats leads to greater competition between rivers and roads for the evacuation of farm produce. Improved land and water transport should lead to a reduction in the cost of in-coming manufactured consumer production, thus leading to an increase in the farmers' well-being.

D. Life of Project

The PACD of Project 098 is being shortened by 19 months from July 31, 1994 to December 31, 1992. Based on past experience, the almost four years remaining for the project will be enough time to meet project outputs. The period remaining for the project will also allow USAID sufficient time to carry out a variety of studies and analyses in order to develop a coherent transport strategy and begin the next phase of transport activities.

E. Project Activities

The 098 PP Supplement follows the original design strategy, with project activities falling into three basic areas:

- Rivers

a) Assistance to Régie des Voies Fluviales
b) River Marketing Trials Using Wooden Boats

- Roads

a) Selective Rehabilitation and Maintenance
b) Materials Research

- Analysis, Studies and Research

a) Baseline Updates
b) Transport and Marketing Studies
c) Decentralization

1. Rivers

a) Assistance to Régie des Voies Fluviales:

USAID will continue funding technical assistance and commodities for Régie des Voies Fluviales (RVF) in support of improving navigation on the Kasai and Kwilu Rivers. Assistance to RVF under 098 has been carefully coordinated with the World Bank and Belgian Cooperation programs. In total, a combined $16 million donor package provides for technical assistance, fleet improvement, training, and operational funding for the national inland waterways authority. The USAID contribution is focused on improving use of the priority Kasai River Basin and secondary Kwilu River.

Regional communications within RVF will be greatly improved with the addition of telecommunications equipment. Radio communication between Kinshasa and Bandundu Region does not exist at present. Equipment procurement under the project will be coordinated with other donor programs to ensure that the telecommunications equipment obtained is compatible with RVF's seven portable field units and one fixed station (radio with telex interface) located in Kinshasa.

Hydrographic activities make up the core of RVF's responsibilities for maintaining navigation. Project 098 will fund long-term hydrographic technical assistance (two years) in order to organize and supervise planned charting and marking activities. These navigational improvements will be conducted using modern hydrographic equipment already purchased under the project.

Uncharted sections of the Lediba Pass will be studied during the low water season to better understand this dangerous, rocky section of the Kasai which impedes river traffic between central Bandundu and the Zaire River.

The shifting sands of the Kangombe and Tumbalungu Passes will also be studied during another subsequent low water season. New markers will be installed along this 31 kilometer section of the Kasai River using modern engineering techniques.

In addition to improved communications in the field and between Bandundu Region and Kinshasa, as well as the provision of technical assistance in the execution of specifc studies, the project will provide funding to help RVF recondition the boats needed to transport and house the hydrographic team on the river.

Twelve additional fixed markers and buoys will be installed along critical channels of the Kasai and Kwilu Rivers.

b) River Marketing Trials Using Wooden Boats.

The emphasis of Project 098's involvement in the development of a new class of wooden boats in the 15-40 ton range derived from the design of the traditional baleinière will shift from the Kinshasa-based experiments in boat building technology presently under way to project area river marketing trials. The project technical assistance team will work with the Office of the Governor of Bandundu to identify commercial builders in Bandundu Region capable of building the new boats. The Governor has strongly supported the development of the river marketing network of Bandundu Region, including the increased production of wooden river vessels. Limited technical assistance will be available under the amended project on a short-term basis to local boat builders who have expressed an interest in constructing baleinières according to the plans and technology already developed under the project. Boat prodution will be closely coordinated with the actual marketing trials on the rivers.

The first phase of this unique joint venture between 098 and its complementary project, Area Food and Market Development (660-0102), will begin early in 1989 with applied research aimed at gathering accurate information about the physical river market chain linking the central Bandundu agricultural producer with the Kinshasa consumer. Collection of this information is essential to subsequent development of the deteriorated river transportation corridor.

The 25-ton prototype baleinière designed and constructed under the current project completed a very successful maiden voyage in April-May of 1988, transporting 25 tons of construction materials and diesel fuel for the Sia Mission bridge construction activity being funded by Project 098. These materials were transported approximately 540 kilometers from Kinshasa to the Kasai port of Mabenga. There, the boat was reloaded with 25 tons of manioc for the return trip. The initial river test confirmed assumptions critical to efficient operation: that the dual outboard motor system, though usable, was not practical over the long-term because it did not provide the maneuverability needed, and that the economic operational range for the boat was much shorter than the distance between Kinshasa and Mabenga.

The river marketing trial planned for 1989 will use a traditional wooden baleinière with an outboard motor to shuttle agricultural produce from the interior of the project area to the Kasai River for assembly and bulk transport by private barge to Kinshasa. Both Developpement Progrès Populaire (DPP) and the Lusekele Mission have been recommended by the 102 Project team as likely candidates for participation in this exercise. A team member will accompany the produce as an observer the entire distance from the point of origin to Kinshasa. This observer will collect information related to both the transport and assembly process as well as to the alleged dishonesty of river and port authority personnel and the river captains themselves. The outcome of this trial will weigh heavily in the decision regarding whether to continue with the development of this mode of transport.

From 1990 through 1992, the project's river marketing trials will concentrate on the entire transportation circuit: private sector production of the boats in the Bandundu Region; proliferation of the boats through credit programs assisted by the 102 project; identification of interested, viable boat users; appropriate, modest improvements to private ports (assembly and transformation points) on the Kasai and its tributaries; identification of reliable private barge companies; and the identification of large industrial, institutional and commercial consumers in Kinshasa.

Project inputs in river marketing trials are expected to be minimal, consisting of short-term technical assistance for boat builders, continuous monitoring and analysis of trading activities, and very limited improvements to ports. If the marketing trials show that ports being used as assembly and shipping points require modest, relatively inexpensive improvements to increase their usefulness and efficiency, subcontracts could be made with private sector entities for minor port construction. Among the work that might be carried out would be installing gangplanks, railings, small docks and mooring equipment, and obtaining materials to construct covered storage and secure enclosures.

Essential to the success of the river transport component will be RFV's adherence to a project covenant ensuring free and open private river transportation. Important information for determining what direction this part of the project should take will be available in CY 1990 following completion of a study of the wooden boat transport market based on real operating experience. This study will provide data on construction costs, operating expenses, rate of return, availability of credit, and other expenses borne by private boat transporters.

2. Roads

a) Selective Rehabilitation and Maintenance

The focus of Project 098's roads component from 1990 through 1992 will be on selective road rehabilitation and maintenance. This GOZ-financed work will be carried out by OR and SNRDA under Fixed Amount Reimbursement-like agreements and by private sector entities under subcontracts.

Use of GOZ-financed subcontracts and FAR-like agreements will allow the project to work with a variety of organizations to test their capabilities in road rehabilitation and maintenance. Different mixes of manual and mechanical maintenance can be tried to determine which combinations are most effective. Through the use of subcontractors, a great deal will be learned about whether the private sector has the interest and capacity to participate in road work activities in Bandundu Region.

In the public sector, the project will work with both OR, which is responsible for the construction, rehabilitation and maintenance of national and regional roads, and SNRDA, which is responsible for maintenance on agricultural feeder roads. USAID has a long-standing relationship with OR and is well aware of that organization's strengths and weaknesses. USAID has had no direct experience in working with SNRDA, which was created in January 1987. Heavy equipment purchased under both Project 028, already ended, and Project 026, PACD 13 September 1989, will be assigned to OR and SNRDA road rehabilitation and maintenance activities.

GOZ-financed FAR-like agreements will be used as the funding mechanism with OR and SNRDA for selective maintenance of critical trouble spots, including those occuring on road sections rehabilitated earlier under USAID financing. These possible interventions include bridge and culvert repair and replacement, anti-erosion measures, and the rehabilitation of gradients, dikes, ramps and side drains. Trouble spots already identified and under study by OR at this time include:

- Koreama Bridge. This 60-meter span was constructed by the OR bridge brigade with British funding, with the approaches being provided by USAID under the Agricultural Marketing Development I Project (660-0026). USAID engineers have identified potentially serious erosion on the right bank which, if allowed to go unchecked, will result in the loss of the bridge approach ramp. The solution to the problem will require gabion or cement-stabilized sandbag river bank protection, as well as river training upstream.

- Relocation of the Ivang Dike. This particularly dangerous section of the 026 road runs parallel to the Kamtsha River, leading to a 50-meter-long Bailey bridge connecting Ivang and Mukala. The existing dike, which was constructed during the colonial period on the actual river bank, is bounded by the Kamtsha River on the south side and a swamp on the north. The dike has failed to stabilize, as many dikes will do after many years of use, and a lack of regular maintenance has resulted in a rapid deterioration of the road surface. Five persons were drowned in April 1988 when their vehicle skidded off the dike and went into the river. USAID is prepared to finance a study of the dike, looking at the options of relocating it through or around the swamp, or of installing safety railings if the realignment solution proves unfeasible.

- Panu Culverts. Two culverts installed next to each other in the key Kasai River port town of Panu under Project 026 by the OR bridge brigade have repeatedly washed out due to the large volume of run-off water they carry. OR and USAID engineers have discussed with Panu officials the need to relocate houses in the vicinity in order to reconstruct the culverts. In addition, the road leading to the culverts has been cut by erosion and needs to be completely rebuilt.

Idiofa-Kikwit Road Bridges. This 80-kilometer road has numerous bridges and culverts that require repair or replacement.

The private sector will play a larger role in road rehabilitation and maintenance under the project during the time remaining until PACD. Among donors involved in road projects, there is a growing realization that despite the more than $300 million in foreign exchange they have made available to OR over the past few years a combination of inadequate funding for the parastatal from the GOZ and internal OR administrative problems have led to a steady deterioration of the country's road network. Funding road activities by the private sector is one possible way of getting around the difficulties inherent in working with OR.

To begin exploring the possibility of working with the private sector, USAID organized and carried out a five-week advertising campaign during the last quarter of CY1988, asking for expressions of interest from the private sector in the rehabilitation and maintenance of rural roads in Bandundu and Shaba Regions. The campaign, which used a multi-media approach including newspaper advertisements and radio spot announcements, led to the distribution of more than two hundred questionnaires in Kinshasa, with an additional two hundred at various locations in Bandundu and Shaba. In excess of three hundred questionnaires have been returned, and USAID has begun analyzing the questionnaires to determine the potential capability of the private sector in undertaking road work. The questionnaires were designed to encourage the participation of large companies, PVOs, small traders, and road haulers. When the analysis has been completed, USAID will have an inventory of potential contractors, ranging from those capable of performing major road construction to contractors only interested in small maintenance projects.

The project has set aside foreign exchange and GOZ-contributed local currency for funding subcontracts to private sector entities for the performance of road rehabilitation and maintenance work throughout the project area. Organizations which are already well known to USAID, such as the Missions at Sia and Lusekele, DPP, and traders/road haulers like the Fernandez Company, will be encouraged to participate. Technical oversight of these interventions will be provided by local-hire engineers working for the 098 technical assistance team and OR zone engineers, with periodic monitoring by USAID direct-hire and PSC engineers.

b) Materials Research

The funding of materials research under Project 098 will continue through the project's remaining years. This research has been prompted by the need to find alternative road surfacing materials to the sand found in Bandundu Region. The search for a better road surfacing material has been made all the more pressing by the failure over the years of various experts, including a satellite imagery specialist in November-December 1988, to find laterite and gravel in sufficient quantities to be used in road work.

Some encouraging technical results have been obtained from experiments with cement stabilization and asphalt emulsion, but the present costs of those two techniques are too high when weighed against the potential return because of low traffic volumes. An additional drawback traffic volumes is that to use both techniques correctly requires a fairly high level of technology. A promising alternative to the road surfacings already being investigated is crushed fired clay bricks, which will be tested on some troublesome slopes during CY1989. Tests on a variety of road surfacing materials that seem to be economically justifiable will continue under the project.

3. Analysis, Studies and Research

a) Baseline Updates

Under 098 and predecessor projects, considerable baseline data on the project area has already been collected, consisting of traffic counts, vehicle operating costs, commercial market information, and river transport data. The last information to be gathered under these initial baseline surveys is expected to be collected during the next few months.

These components of the baseline are complemented by a body of additional documentation--an exhaustive project area roads inventory, updated charts and maps, and a collection of studies and reports relevant to the project area and the project. The information specialist for the new long-term technical assistance team will update the baseline information when required to do so in order to test the effectiveness of a particular intervention or the results of a series of interventions. This body of information, updated as appropriate, will allow USAID and the institututional contractor to gauge project impacts, to better coordinate project interventions with other development activities in the region, and to make more informed decisions concerning the continuation, addition or elimination of specific project activities based on actual and potential impact.

Regular monitoring of this body of information will allow USAID and the institutional contractor not only to better gauge project impacts but also to better coordinate project interventions to mesh with developments in the region and to make more informed decisions concerning the continuation, addition or elimination of specific project activities based on actual and potential impact.

b) Transport and Marketing Studies

The carrying out of transport and marketing studies will be a major element of the project through PACD. USAID requires more information about a great many issues and factors affecting transport in rural areas in order to make informed choices about the 098 project, its other transport activities in the area, and subsequent transport projects/programs it may wish to develop in Bandundu in the future. Transport investment decisions concern more than just engineering questions and need to be made in the context of the overall economic system. As stated in the revised logframe for this PP Supplement, the project purpose is "to improve and expand the access of central Bandundu farmers to commercial markets." Thus, project decisions need to be made within the context of the marketing system. Before USAID can propose likely solutions, it needs to understand the transport marketing system better - how it works or does not work, and what the constraints are.

In the past, USAID has at times not been fully informed about issues related to marketing and credit. Whether the rehabilitation of transport infrastructure will result in an increased supply of marketing services will depend, in large measure, on market structure and conduct. To make more informed decisions, USAID needs to know more about such matters as competition in the transport sector; barriers to entry, such as credit; whether reduced transport costs are passed on to producers and consumers; and how important costs are as a percentage of final prices.

For all of these reasons, the project will undertake a variety of analyses, studies and research on the transport sector. The transport and marketing studies component of the project for the remaining LOP will begin with a river and road transport marketing system study that will use existing data and personal interviews with marketing and transport participants to provide an overview of the river and road marketing and transport system for Bandundu. This study, which will be carried out before the arrival of the new institutional contractor under an Indefinite Quantity Contract (IQC) or through a buy-in to the centrally managed Agricultural Policy Analysis II (APAP II) Project, will: 1) supply information that will help USAID and the new contractor, once the long-term technical assistance team has arrived, draw up an analysis, studies and research agenda for the remainder of the project; and 2) provide economically based indicators that can be used along with other selection criteria in making decisions about proposed project interventions.

Drawing on data available from Projects 091, 102 and 119, as well as GOZ and World Bank reports, the study will provide an overview of:

i) agricultural production - where crops are grown, what is produced, what the costs of production are, the availability and use of agricultural inputs, and the potential for increased crop production;

ii) transportation - amount of agricultural produce transported by road and by river, characteristics of transporters, economics of road and river transport, technical constraints, and the effects of government policies, controls and regulations;

iii) marketing - what crops are marketed, what agricultural inputs and consumer goods are marketed, how is the marketing system structured, price behavior, demand, sources of credit, barriers to market entry, and marketing costs and margins; and

iv) implications of transport and marketing improvements - who will benefit, changes in the distribution system, changes in food crop/cash crop production, and changes in access to health facilities and other social services.

This initial survey will compile and synthesize existing data collected on these subjects (particularly agricultural production, transportation and marketing) by studies done under Project 091 (Applied Agricultural Research and Outreach), Project 102 (Area Food and Market Development), Project 119 (Agricultural and Planning), the Tollens study, and previous 098 studies. This work will be carried out over a two-month period by a four or five person team that could include a road transport economist, a river transport economist, an agricultural economist/marketing economist, a rural sociologist and a policy analyst. The report format will be similar to that of a World Bank Memorandum, with an Executive Summary of 8-10 pages, a main body of text of 40-50 pages, and technical annexes, as required.

Using this study as a starting point, the new institutional contractor and USAID will work together to determine which transport and marketing issues require further investigation. Among the areas that might be considered, depending on the findings of the initial study, are expanding the market for wooden boats, river-road linkages in marketing agricultural produce, ways of improving the river transport trading system, developing realistic maintenance standards and programs for dirt roads, and how to work more effectively with the private sector in road rehabilitation and maintenance. Scopes of work for the studies will be jointly developed with the institutional contractor, which will then be responsible for obtaining the required short-term consultants, handling travel and logistics, monitoring the carrying out the research, and making sure that reports prepared are acceptable to USAID.

While specific areas for study will be identified as soon as possible, a certain amount of flexibility will be kept in the research agenda, so that the long-term institutional contractor, in consultation with USAID, will be able to respond to changing needs for information on the transport sector. All studies will be discussed with, and concurred in by, the appropriate GOZ entities while the studies are still in the planning stage in order to ensure that the GOZ is interested in the issues to be studied and might, therefore, act on the studies' findings.

Analysis, studies and research of the transport sector carried out under the 098 project will focus on Bandundu Region. In examining some questions, however, it may be necessary to take a slightly wider perspective than just Bandundu in order to obtain a fuller and more accurate understanding of the issue being studied. For example, the state of the transport sector in Bandundu is directly affected by the financial and administrative problems faced by OR in Kinshasa, which will have to be taken into account in determining OR/Bandundu's capabilities. Any such broadening of an issue to include elements outside the immediate project area will be determined strictly on a case-by-case basis.

c) Decentralization

USAID recognizes the need to provide assistance to the GOZ's central and regional authorities and institutions in examining appropriate infrastructure maintenance and financing mechanisms. A series of short-term consultancies to make an initial assessment of the likelihood of generating revenues for road maintenance on the regional level will begin early in 1989 under a buy-in to the centrally managed Decentralization: Finance and Management (DFM) Project (936-5446). If this preliminary exploration reveals some possible options that seem worthwhile following up, a long-term consultant will be brought in to work with the GOZ in setting up pilot revenue generation demonstrations in the regions. This exploration of the feasibility of decentralized revenue generation for infrastructure maintenance will be carefully coordinated with the Central Shaba Agricultural Development Project (660-0105), as well as with Project 102 in Bandundu. Close monitoring and review of this project element will ensure that USAID develops an approach consistent with GOZ policy and capabilities.

F. Project Outputs

In its three major areas of activity, the project will achieve the following outputs:

- navigation on Bandundu rivers will be improved by RVP;
- new types of wooden boats will be developed and trading on rivers;
- level of activity of river transport trading system will be increased;
- selective road rehabilitation and maintenance will be carried out;
- an annual regional maintenance plan will be developed; and
- information gathering, studies and reports will be completed on major transport issues.

III. COST ESTIMATE AND FINANCIAL PLAN

A. Introduction

The Agricultural Marketing Development III Project Amendment increases A.I.D's planned contribution to the project by $5,000,000, raising the total A.I.D. contribution from $8,000,000 to $13,000,000, and increases the GOZ's contribution in local currency by the equivalent of $4,972,000, raising the total GOZ contribution from the equivalent of $3,428,000 to the equivalent of $8,400,000. All of the $8,000,000 originally planned to fund the dollar portion of the project have been obligated, and $6,500,000 of that sum have been committed. The $1,500,000 balance remaining will be committed to fund technical assistance, including the mobilization of the new long-term technical assistance team, which is expected to arrive in country in January 1990. An obligation of $5,000,000 will be made with the signing of the Project Agreement Amendment for this PP Supplement. The revised Illustrative Financial Plan is presented in Table 1, the revised Illustrative Budget for the remainder of the project appears as Table 2, Table 3 shows the Illustrative Financial Plan for the funds already committed under the project, and Table 4 provides details on Payment Verification.

The original Project Paper did not present a detailed budget of local currency costs. Implementation experience to date now permits more precise planning in that regard, and projected counterpart fund expenditures for the remainder of the project are shown in Table 2. The GOZ contribution in counterpart funds will be complemented by additional in kind support from RVP and OR in the form of staff, facilities, and equipment placed at the disposition of the project.

B. Sources of Financing

The $8,000,000 obligated under the original Project Paper was from the ARDN account. The GOZ's local currency contribution has come from counterpart funds generated by USAID's PL-480 and commodity import (CIP) programs. Additionally, subgrantees contributed a minimum of 10 percent of the total subgrant amount, either in cash or in kind.

The $5,000,000 in funding being added to the project with this amendment will come from the Development Fund for Africa (DFA) account. The additional dollar equivalent in local currency of $4,972,000 that the GOZ will make available to the project under this amendment will come from counterpart funds generated from the PL-480 and CIP programs. Since, for the remainder of the project, subcontracts rather than subgrants will be awarded to nongovernmental entities for road activities, it will not be possible to require contributions to the project from the subcontractors.

Any local cost financing undertaken will be in accordance with the procedures outlined in HB 1B, Chapter 18, and will be subject to the execution of the determinations required by HB 1B, Chapter 18 A1C. The institutional contractor will be responsible for tracking and accounting for all dollar-financed local costs during the life of the project.

C. Disbursement Plan and Financial Control

The institutional contractor chosen to implement the project will, with a few exceptions (USAID participation in the centrally managed Decentralization: Finance and Management Project and USAID funding of project support personnel), be responsible for the disbursement of funds and financial management under the project, including the reporting of dollar and zaire expenditures to USAID. The USAID controller has established a project reporting format that should be adopted to facilitate quarterly reporting on project activities. It is strongly urged that the institutional contractor's financial accounting system be set up in such a way that it is certifiable and compatible with the USAID system.

The institutional contractor will be responsible for tracking all dollar and zaire expenditures under subcontracts and Fixed Amount Reimbursement (FAR) agreements for road rehabilitation and maintenance. Recipients working under those two contracting modes will furnish monthly reports to the contractor detailing all expenditures. In cases where an advance of GOZ local currency funds are obtained, the contractor will be responsible for seeing that the funds disbursed to the recipient are adequately controlled and are used only for project-specified activities. Where there is no advance, the contractor will pay the recipient the previously agreed upon amount once the work has been satisfactorily completed and inspected. USAID will have no direct involvement with the financial management of either subcontracts or FAR-like agreements.

The institutional contractor should use different types of financial reporting to monitor the project as a whole and the individual subcontracts and FAR-like agreements. For the project as a whole, important tracking mechanisms are annual and life-of-project budgets, detailed monthly budget versus actual expenditures summaries, annual and life-of-project budget versus actual expenditures summaries, as well as a system of established financial accounting controls over the disbursement and receipt of funds. For each subcontract and FAR-like agreement, a budget versus actual expenditures report should be prepared on a monthly basis by the institutional contractor from information provided by the recipient. The institutional contractor will have in place a system of internal controls for subcontracts and FAR-like agreements that will allow any misuse of funds to be quickly identified and brought to USAID's attention. The contractor will also notify USAID in the event that recipients are expending funds at an unusually slow rate.

TABLE 1

ILLUSTRATIVE FINANCIAL PLAN
($000 or dollar equivalents for LC)
($1.00 = 275 zaires)

Category	A.I.D. Contributions to Date	Future A.I.D. Contributions	GOZ Contributions	TOTAL Contributions
Technical Assistance	6,000	3,250	2,840	12,090
Road and Port Rehabilitation and Maintenance	500	600	3,230	4,330
Commodities	1,000	900	935	2,835
Monitoring and Evaluation	150	100	375	625
Training	100	50	20	170
Contingency	250	100	1,000	1,350
Total	8,000	5,000	8,400	21,400

02-Mar-89

TABLE 2

Illustrative Budget By Fiscal Year
LOP ($000)
($1.00 = 275 zaires)

	1989		1990		1991		1992		1993		Total	
	AID	GOZ	AID	GOZ	AID	GOZ	AID	GOZ	AID	GOZ	AID	GOZ
Long-Term TA	0	75	700	200	700	200	550	150	100	100	2050	725
Short-Term TA	300	20	300	75	150	45	50	20	20	10	820	170
USAID Oversight	80	50	600	45	600	45	500	35	100	35	1880	210
Road and Port Rehabilitation & Maint.	0	0	222	1037	222	1038	156	820	0	205	600	3100
Commodities	200	50	237	188	237	137	226	80	0	55	900	510
Monitoring/Evaluation	0	0	50	17	0	20	0	15	50	5	100	57
Training	0	0	50	10	0	0	0	0	0	0	50	10
Contingency	0	0	40	70	40	60	20	40	0	20	100	190
Total:	580	195	2199	1642	1949	1545	1502	1160	270	430	6500	4972

This budget illustrates project expenditures by fiscal year for the $5.0 million authorized under this PPS and the $1.5 million uncommitted under previous obligations. In addition, it reflects an anticipated GOZ contribution in local currency equivalent to $4.972 million.

TABLE 3

ILLUSTRATIVE FINANCIAL PLAN FOR
FUNDS ALREADY COMMITTED
($000 or dollar equivalents for LC)*
($1.00 = 275 zaires)

Category	A.I.D. Commitments to Date	GOZ Commitments to Date	Total Commitments to Date
Technical Assistance	4,500	1,707	6,207
Road and Port Rehabilitation and Maintenance	500	130	630
Commodities	1,000	425	1,425
Monitoring and Evaluation	150	318	468
Training	100	10	110
Contingency	250	810	1,060
Total	6,500	3,400	9,900

*This Illustrative Financial Plan shows the repartition by line item of 1) the $6.5 million committed out of the $8.0 million obligated to date and 2) the (rounded) equivalent of $3.428 million committed in local currency.

TABLE 4
Payment Verification
($000)

Category	Method of Financing	A.I.D. Contributions to Date	Future A.I.D. Contrib.	Total A.I.D. Contrib.
Technical Assistance	Direct Pay (incl. Direct L/Com)	6,000	3,250	9,250
Road and Port Rehabilitation and Maintenance	Direct Pay FAR	500	600	1,100
Commodities	Direct pay (incl. Direct L/Com)	1,000	900	1,900
Monitoring and Evaluation	Direct Pay	150	100	250
Training	Direct Pay	100	50	150
Contingency	Direct Pay	250	100	350
Total		8,000	5,000	13,000

IV. IMPLEMENTATION PLAN

A. Responsibilities

An A.I.D.-direct institutional contractor, selected through full and open competition, will be responsible for implementing and monitoring the project. The new contractor will be responsible for supplying long- and short-term technical assistance, purchasing commodities, subcontracting for selected road and port activities, arranging for training, and organizing and carrying out studies and other research and information gathering activities. An initial river and road transport and marketing system study, however, will be carried out before the contractor's arrival by a team of experts obtained directly by USAID under an Indefinite Quantity Contract (IQC) or through a buy-in to the Agricultural Policy Analysis II (APAP II) Project. The new contractor will inherit an ongoing project with activities in three major areas--rivers, roads and information gathering and studies. Building on project experience to date, and in close consultation with USAID, the new contractor will develop and implement work plans designed to achieve project outputs by PACD. USAID's main point of contact with the contractor will be the USAID 098 Project Officer, who will meet regularly with the contractor's long-term technical assistance team; visit project sites; review and approve, with the assistance of the project committee, work plans and budgets; verify vouchers submitted by the contractor; and prepare required project documentation.

The GOZ's Ministry of Plan will sign the Project Agreement Amendment. OR and RVF will indicate their concurrence with the Project Amendment by sending letters to that effect to USAID, which will also indicate who at their respective organizations is officially empowered to sign documentation related to the project.

Project Implementation Letters and other project documentation specifically related to road and river transport will be signed by OR and RVF, respectively.

B. Logistics

The new institutional contractor will install its long-term technical assistance team in Kikwit, with the exception of the hydrographer, who will be based in Kinshasa in order to work with the RVF's head office. Moving the site of the project's institutional contractor's office from Kinshasa, where it had previously been located, to Kikwit will allow the project to keep in touch with the transport situation in Bandundu Region on a day-to-day basis, to get to know better the main governmental and private organizations and entities involved with transport, and to work more closely with Project 102.

It is anticipated that three members of the contractor's four-person long-term technical assistance team--the chief of party, the administrative assistant and the information specialist--will take up residence in Kikwit early in 1990, following a month of overlap in Kinshasa with the present contractor. The Bandundu Support Unit (BSU) will arrange for the renting and repair of houses in Kikwit for the technical assistance team, so that the team members will be able to move immediately into their living quarters. The BSU will also arrange for the renting and readying of office space in Kikwit for the contractor. In addition, the institutional contractor will, on its own, rent an office in Kinshasa for the use of the fourth member of the long-term technical assistance team, the hydrographer, and any project personnel called to the capital on business.

C. Fixed Amount Reimbursement-like Agreements

Under the amended project, Fixed Amount Reimbursement-like agreements with OR and SNRDA will be used to fund road rehabilitation and maintenance. Under this system, OR and SNRDA will submit proposals to the contractor for the road work they want to undertake. The institutional contractor will review the proposals and, if they seem economically and socially justifiable, work out with the parastatals the specifications, work plans, and budgets for the work to be undertaken. Once that has been satisfactorily completed, the contractor will recommend to USAID that it enter into FAR-like agreements with the parastatals for the road work specified.

USAID will meet with the parastatal concerned to work out final terms for the FAR-like agreement, including agreeing that the project account will pay the parastatal a fixed amount of GOZ-supplied local currency upon successful completion of the work. The specifications, work plan, and budget worked out between the contractor and the parastatal, modified by USAID as needed, will be annexed to the FAR-like agreement. The contractor will monitor the work, carry out a final inspection, and make a recommendation to USAID on whether the work has been satisfactorily completed and payment should be made as stipulated in the FAR-like agreement. USAID will then have its own engineers make an inspection of the road work and, if it is found acceptable, will approve the project account paying the parastatal per the FAR-like agreement.

Ideally, under a FAR-like agreement, the government entity involved should carry out the agreed-upon work with its own funds and then be reimbursed according to the terms of the relevant FAR-like agreement once the work has been satisfactorily completed. In practice, however, both advances and partial payments are allowed. Thus the project could pay an advance to get the work started and then pay the parastatal once the entire activity has been completed, or could pay the parastatal as each segment of the work was finished. It would also be possible to make an advance for each segment of the activity under a system of rolling advances, although that would entail considerable paperwork. Any time the concerned parastatal failed to satisfactorily complete the agreed-upon work, it would be required to repay the advance to the project account.

The institutional contractor will be compensated for its role in working out the FAR-like agreements' specifications, work plans and budgets; for monitoring the work and for making final inspections.

D. Subcontracts

The institutional contractor will be responsible under the amended project for making subcontracts for the carrying out of road rehabilitation and maintenance activities and limited port improvements by nongovernmental entities such as missions, PVOs and private firms. Under this arrangement, the contractor will receive proposals for road activities and limited port improvements from nongovernmental entities; work out with the proposer the specifications, a work plan and a budget; and send the completed proposal to USAID for its concurrence.

Once USAID has given its concurrence, work will get under way by the nongovernmental entity, with the institutional contractor monitoring the activity, making a final inspection and, if the work is satisfactory, recommending to USAID that the nongovernmental entity be paid. USAID will have its own engineers inspect the work and, if it is found to be acceptable, will authorize the contractor to pay the nongovernmental entity. Money for making such payments will be contained in the institutional contractor's contract.

E. Subgrants

The project currently has one subgrant, an Operational Program Grant (OPG) with the Society of Jesus mission in Sia, for $320,500 in foreign exchange and the equivalent of $389,500 in local currency, which will expire on 31 December 1989. Under this OPG, bridges and culverts are being repaired and replaced in the area of the Sia Mission. No additional subgrants are anticipated under the project.

F. Allocation of Counterpart Funds to DPP

In addition to regular counterpart fund (CPF) support for 098 project activities, a special allocation of local currency is being made available to Developpement Progrès Populaire (DPP) in Idiofa. This funding is being divided into three tranches covering the years 1989-1991. The first release of 100 million zaires (for CY 1989) has already been made available to DPP for road work. If the activities scheduled for CY 1989 are successfully completed, it is planned to make the dollar equivalent of $175,000 in zaires available to DPP in CY 1990, with the same arrangement, and level of funding, applying in CY 1991. With this special allocation, DPP will repair and replace embankments, dikes, access ramps and culverts in the Idiofa area, including improving the approaches to bridges built under the recently completed PVO Economic Support Project (660-0097). This special allocation will also be used to strengthen DPP institutionally by providing funding for a Zairian road engineer and an accountant. If dollar funding is required for its road activities, DPP could apply for a subcontract under the project's provisions as outlined above.

G. Buy-in to Decentralization: Finance and Management Project

Initial funding support for the buy-in to the centrally managed Decentralization: Finance and Management Project (936-5446) will come from the Central Shaba Agricultural Development Project (660-0105). Several short-term consultants will make an initial assessment of the likelihood of generating revenues for road maintenance on the regional level. If this preliminary exploration looks encouraging, Project 098 will fund a long-term consultant for one year to develop contacts with the central and Shaba and Bandundu regional governments, initiate a serious dialogue on both levels of government on the question of local revenue generation, and, for Bandundu, design a pilot program for generating local revenues for road maintenance. At the end of this year-long consultancy, USAID will assess the results to date, along with the chances of future success, and decide whether to continue with the project.

H. Gray Amendment Considerations

The institutional contractor that will implement the Agricultural Marketing Development III Project under the PP Supplement will be called upon to work in three separate, distinct areas--river transport, road transport and information gathering and assessment (analyses, impact assessments, evaluations, studies and monitoring). The contractor chosen must be able to provide high quality long- and short-term technical assistance and home office expertise in all three areas. Moreover, long- and short-term TA supplied by the contractor will have to be proficient in French, fully capable of carrying out all job-related tasks in that language. The contractor selected, therefore, must possess a combination of highly technical skills and a strong French-language capability.

Due to the size and complexity of the project and the very specific technical and linguistic skills required, an 8(a) set aside does not seem to be the most effective mechanism for involving in the project firms eligible for consideration under the Gray Amendment. Instead, bearing in mind that both large and small minority firms are considered as qualifying under the Gray Amendment, USAID, in order to ensure the participation of such firms in the project to the greatest extent possible, will ask the AID/W Minority/Small Business Advisor to supply the Mission with the names of Gray Amendment firms that might be interested in submitting proposals. Those firms will then be notified individually by USAID about the RFP. In addition, the RFP will specifically state that firms submitting proposals to become the prime contractor are encouraged to sollicit the participation, to the maximum extent possible, of small business concerns, small disadvantaged business concerns, and women-owned small business concerns as subcontractors. All selection evaluation criteria being found equal, the participation of such concerns may be a determining factor for selection.

I. Revised Project Implementation Schedule

The revised Project Implementation Schedule from 1 March 1989 through 31 December 1992 (PACD) follows on the next page.

IMPLEMENTATION SCHEDULE

	ACTION	AGENT	DATE
1	PPS approved.	USAID	Apr-89
2	Authorize RVF radio procurement.	USAID	Apr-89
3	PIO/T to REDSO for follow-on contract.	USAID	Apr-89
4	BSU begins Kikwit logistics.	USAID/BSU	Apr-89
5	2nd prototype baleiniere completed.	LBI	Apr-89
6	River marketing reconnissance.	USAID/102	Apr-89
7	RFP is issued for follow-on contract.	REDSO/W	May-89
8	Extended Lediba Pass geodetic survey begins.	LBI/RVF	May-89
9	Engineering study of fixed river markers begins.	LBI/RVF	May-89
10	Initial river marketing trial run.	USAID/102	Jul-89
11	River/road transport system study begins.	USAID	Jul-89
12	Evaluate RFPs.	USAID/REDSO	Aug-89
13	Decentralization (DFM) PIO/T	USAID	Aug-89
14	Best and final offers received.	REDSO	Sep-89
15	Follow-on contract awarded.	REDSO/USAID	Nov-89
16	LBI contract ends.		Dec-89
17	Follow-on COP and admin officer ETA.	Contractor	Jan-90
18	Info specialist, hydrographer and DFM expert arrive.	Contractor	Feb-90
19	Final Lediba Pass survey preparations.	Contract/RVF	Mar-90
20	Advertising for road maintenance contracts.	Contract	Mar-90
21	Rehabilitation of RVF houseboat.	Contract	Mar-90
22	Install RVF radio equipment.	Contract	Mar-90
23	Communication specialist designs promotion plan (boat marketing 1 mo).	Contract	Apr-90
24	Market relations study (2 mo).	Contract	Apr-90
25	Soil stabilization test preparations.	Contract/OR	Apr-90
26	First maintenance contract evaluated and contract awarded.	Contract/OR	May-90
27	Planning for anti-erosion work on Koreama bridge.	Contract/OR	May-90
28	SOW complete for the Ivang dike study.	Contract/OR	May-90
29	Discussions with Bnd Governor concerning boat marketing.	Contract/AID	May-90
30	River marketing trials.	Contract/102	Jun-90
31	Identify local boat builder, wood supplier and transporter.	Contract/102	Jun-90
32	Boat builder TA SOW complete.	Contract	Jun-90
33	Completion of Lediba Pool study and start of fixed river marker construction.	Contract/RVF	Jun-90
34	Resume traffic counts.	Contract	Jun-90
35	Project evaluation.	USAID	Jul-90
36	DFM initial recommendations for demonstrations, experiments.	DFM	Jul-90
37	DFM macro economist (1 mo).	DFM	Jul-90
38	SOW for regional maintenance study.	Contract/OR	Jul-90
39	Begin study of Ivang dike (3 mo).	Contract/OR	Jul-90
40	Assembly/transport study of ports (1 mo).	Contract	Aug-90

	ACTION	AGENT	DATE
40	Road/river study of ports (1 mo).	Contract	Aug-90
41	Contract with OR for Koreama bridge.	Contract	Aug-90
42	LNTP-OR soil stabilization tests.	Contract/OR	Aug-90
43	Second maintenance proposal evaluated and contract signed.	Contract/OR	Sep-90
44	Lediba Pool and river markers field work completed.	Contract	Sep-90
45	Internal evaluation of boat trials.	Contract/AID	Oct-90
46	Market specialist for boats (1 mo).	Contract	Oct-90
47	Negotiate boat building agreement.	Contract	Oct-90
48	Ivang dike study completed; options evaluated.	Contract	Oct-90
49	Koreama bridge erosion work completed.	Contract/OR	Nov-90
50	Nutritional study related to roads appended to baseline.	Contract	Nov-90
51	Boat promotion campaign, Kin and Bddu.	Contract	Dec-90
52	TA boat builder (6 mo).	Contract	Dec-90
53	Study of regional maintenance program.	Contract/OR	Jan-91
54	Preparation for hydrographic surveys.	Contract/RVF	Jan-91
55	Rehabilitate buoy tender.	Contract/RVF	Jan-91
56	Production of boats begins in Bddu.	Contract	Jan-91
57	OR submits proposal for the relocation or reconstruction of the Ivang dike.	Contract/OR	Jan-91
58	Equipment/TA procurement f . Ivang dike.	Contract/OR	Jan-91
59	Development port improvement plans (3 mo).	Contract	Feb-91
60	Decentralization demo begins.	DPM	Mar-91
61	Evaluate Ivang dike proposal, award FAR contract to OR.		Apr-91
62	Second round of maintenance advertizing.	Contract	Apr-91
63	Kwilu river survey.	Contract/OR	May-91
64	Port plans completed.	Contract	May-91
65	Evaluate maintenance proposals.	Contract/OR	Jun-91
66	Boat marketing and promotion assistance (2 mo).	Contract	Jun-91
67	Award contracts for maintenance.	Contract/OR	Jul-91
68	Repeat baseline study.	Contract	Aug-91
69	Complete river markers.	Contract/RVF	Sep-91
70	Selected, limited ports improvements.	Contract	Sep-91
71	Navigational aids completed.	Contract/RVF	Oct-91
72	Study of expanding boat construction and marketing.	Contract	Dec-91
73	Maintenance study completed; action recommendations evaluated.	Contract/OR	Jan-92
74	Hydrographer contract completed.	Contract	Feb-92
76	Final evaluation.	USAID	Oct-92
77	Port improvements completed.	Contract	Nov-92
78	All contracts are terminated.	Contract	Dec-92
79	PACD.		Dec-92

V. MONITORING AND EVALUATION PLAN

The 098 Project Paper had two basic elements in its monitoring plan: 1) baseline and impact studies for the project were to be undertaken by the Area Food and Market Development Project (660-0102), which was to be the companion activity to Project 098, and 2) the institutional capacity of the Institut de Recherches Economiques et Sociales (I.R.E.S.) was to be developed so that it could undertake household and other surveys in preparation for the studies to be undertaken under Project 102. As it turned out, the project did not adhere to either element of the monitoring plan.

Projects 098 and 102 were designed as complementary projects having the same geographical focus, the Kwilu subregion of Bandundu. With regard to project monitoring, Project 098 was to develop an in-country capacity to collect, process, and analyse data; a project monitoring system was to be jointly designed by the two projects, and Project 102 was to have primary responsibility for overseeing the conducting of the studies. As part of the 098 Project Paper design, discussions were held with a number of local organizations to determine which Zairian group should be assisted in developing an information gathering capacity. The choice was difficult since it was evident that no Zairian institution had the capability to undertake the required services. Eventually, however, I.R.E.S. was chosen as the group the project would strengthen.

The staff at I.R.E.S. was drawn from the academic ranks of the Kinshasa campus of the University of Zaire, but the organization had a separate legal identity. I.R.E.S. was in a position to negotiate contracts with outside bodies, had some experience in micro-level data collection and analysis, and had a past record of undertaking serious research work. However, while it was clear that many of its members had some relevant experience, the institution as a whole did not have the capacity to undertake the range and depth of studies envisaged by Projects 098 and 102. The project design team, therefore, added a technical assistance component to 098 for strengthening I.R.E.S.

The monitoring plan envisaged in the 098 PP was never put into effect because delays in implementing the 102 project meant that the two projects did not move forward in tandem as had been intended and because opposition developed within USAID to working with I.R.E.S. due to what was peceived to be the low quality of I.R.E.S.'s research activities. The question of working with I.R.E.S., along with other issues relating to hardware requirements and information needs, were formally addressed in the project's initial evaluation in March 1986, which produced a series of recommendations that separated 098 and 102 project monitoring activities and eliminated Project 098's institution building activities with I.R.E.S. Since then, the project has developed its own capacity for meeting information requirements.

A baseline study of the project area has been completed, has been reviewed by USAID, and is now being finalized. This study consists of traffic counts taken over a 13-month period in the project area, vehicule operating costs determined by using methodology developed expressly for use in Zaire, a commercial market survey, and a river transport survey.

These components of the baseline are complemented by an exhaustive project area roads inventory and updated charts and maps, as well as a collection of studies and reports relevant to the project area and the project.

The new 098 long-term technical assistance team's information specialist will supervise updates of the baseline information, as required, to test the impact of a project intervention or series of interventions. Updating the baseline information will allow the project to gauge project impacts, to better coordinate its interventions with other development activities throughout the region, and to make more informed decisions concerning the continuation, addition or elimination of specific project activities.

In addition to monitoring project outputs, the new technical assistance team will coordinate analyses, studies and research under the project. Among the areas that might be studied and analyzed are the river marketing system, regional road maintenance, expanding the wooden boat market, and river-road linkages (assembly, storage, transformation and ports). The institutional contractor will be responsible for the entire analysis and research process (drafting scopes of work, locating and hiring consultants, arranging travel and logistics, and producing final reports acceptable to USAID). The only exception will be a river and road transport and marketing study that USAID will arrange under an IQC or a buy-in to the Agricultural Policy Analysis II (APAP II) Project. That overview study will take place before the arrival of the new institutional contractor.

USAID also recognizes the need to provide assistance to the GOZ central and regional authorities and institutions in examining the options that exist for the decentralized generation of revenues for infrastructure rehabilitation and maintenance. A dialogue with the central government and regional authorities will begin early in 1989 under a buy-in to the centrally managed Decentralization: Finance and Management (DFM) Project (936-5446). If this preliminary exploration of the problem and possible solutions yields encouraging results, decentralization discussions with the GOZ leading to pilot revenue generation demonstrations will be conducted in the region. This activity will be carefully coordinated with the Shaba 105 project as well as Project 102 in Bandundu. Close monitoring and review of this project component will ensure that the development of USAID policy in this area is consistent with the interests and policies of the GOZ.

Regular Project Implementation Reports (PIRs) will be prepared by the USAID Project Officer for USAID review and submission to AID/Washington.

An initial evaluation of the project took place in March 1986, and a mid-term evaluation is scheduled for July 1990. This mid-term evaluation should pay particular attention to project results to date and to the likelihood of project activities being financially sustainable after PACD. CPP audits will take place in FY 1989 and FY 1990, and a nonfederal audit of the project by a local accounting firm will be scheduled for FY 1990. A final evaluation will take place during the last quarter of the project (1st quarter of FY 1993).

VI. PROJECT ANALYSES

A. Technical Analysis

1. Introduction

The project involves improvement of land and river marketing routes in central Bandundu, an area of Bandundu Region with proven agricultural potential, where inadequate transport infrastructure is a major constraint to development. The project is one of several USAID projects that, in combination, should favorably impact agricultural development in the area. The Agricultural Marketing and Development I Project (660-0026) is concerned with road improvements to both market centers and river ports; the Area Food and Market Development Project (660-0102) is directly concerned with improving agricultural production and marketing; and the Small Project Support Project (660-0125), which is just getting under way, will provide assistance to PVOs and other NGOs to improve infrastructure and agriculture. USAID is coordinating project activities with the European Economic Community (EEC), which is planning road projects in central Bandundu Region that will complement our efforts. USAID is an active member of a group of donors giving assistance to Office des Routes (OR), which includes the World Bank, UNDP, and the EEC, as well as Belgium, Japan, West Germany and Italy. This group works together so that assistance to the Zaire road transport sector is a coordinated effort. USAID is participating in a World Bank-sponsored technical audit of OR, which will more clearly define the type of assistance OR should receive in the future.

The Original Project Paper states, "In the rural environment, transport and agricultural production systems are interdependent. The economic merit of transport improvements in the project area will depend on whether significant increases in future economic activity occur. Such changes may or may not be exogenous to the improvements in the transport system, depending on whether transport cost savings are transformed into increased agricultural production and income."

The original Project Paper correctly makes the point that rural transport projects require appropriate economically based engineering procedures and that the design and maintenance standards for rural roads with low traffic volumes must be appropriate for the level of economic activity. The PP also states that design criteria (which would correlate directly to maintenance criteria) are only economically justifiable as related to the harvesting season.

For purposes of the project's amendment, maintenance criteria will be expanded to include the planting season as well, but with no increase in design standards. Also, under the amendment, economic considerations ruled out the dredging of river channels during the dry season in favor of the construction of boats or barges with shallower draughts than those currently used; and favored the use of wood, which is locally available in abundance, over imported metal in the construction of smaller boats and barges. Economic factors also militated against the construction of ports since at the present level of economic activity, the common practice of mooring to the river bank suffices outside of the main market ports. However, some limited improvements were felt to be justified for selected river bank moorings.

The amended project will emphasize improving the transportation of agricultural products to market by road, river, or a combination of the two. River transport will be improved by developing a range of vessels that are individually affordable and have a shallow enough draught to allow river transport via the smaller tributaries that ultimately lead to the Zaire River. Road transport will be improved by construction of stream crossings, and by selective road rehabilitation and maintenance that will allow transport of agricultural products by road to river ports or directly to marketing centers.

2. DESCRIPTION OF TECHNICAL INPUTS

The amended project will consist of the following technical inputs:

a. Assistance to River Transportation

i) Assistance to Régie des Voies Fluviales (RVF) to improve river navigation in the project area through:

- provision of radio equipment to improve the logistics of river marking and maintenance;

- provision of technical assistance to chart selected sections of the Kasai River.

ii) Provision of technical assistance and materials to private boat builders to improve wooden boat design and construction.

iii) Subcontracts with private sector entities for limited port improvements.

b. Assistance to Road Transportation

i) Subcontracts with PVOs, missions and other private sector entities and Fixed Amount Reimbursement-like agreements with OR and SNRDA will be used to improve water crossings and rehabilitate and maintain problem roadway sections.

ii) Provision of equipment, supplies, and technical assistance to OR to undertake research into alternative surfacing materials for roads in Bandundu Region.

c. Project Monitoring and Evaluation

i) Provision of equipment, commodities, supplies, and technical assistance for the data collection and analysis required for the monitoring/information system.

ii) Provision of technical assistance for the evaluation of project performance and impact.

3. Assistance to River Transportation

The project area is centered on the Kasai and Kwilu rivers and their tributaries. The hydrographic basin of the Kasai River covers a surface area of 904,000 square kilometers of which 72.5 percent is in Zaire, with the rest being in Angola. The principal tributary of the Kasai on the left bank is the Kwango, which has as its major tributaries, the Wamba, and the Kwilu. The major tributaries of the Kwilu include the Inzia, the Lukula, the Kwenge and the Lutshima. There are three other navigable tributaries on the left bank of the Kasai in the project area: the Kamtsha, the Lubwe and the Loange. The principal tributaries of the right bank are the Mfimi, which draws its waters from Lake Mai-Ndombe, the Lukenie, the Sankuru and the Lulua.

The navigable waterways of Zaire are classified in four categories according to their navigability by certain types of barges for approximately 75 percent of the year.

Table 4: Navigable Waterways

Categories	Nominal Barge Capacity	Draft when loaded
1	1200 T	2.00 m
	1000 T	1.80 m
	700 to 800 T	1.80 to 1.90 m
2	150 to 550 T	1.00 to 1.50 m
3	40 T	0.85 m
4	5 T	0.40 m

The navigable length of the Kasai basin for vessels of 40 tons or more is about 3,900 kilometers, divided as follows:

Category 1: 600 km (Kwa and Kasai to Ilebo)
Category 2: 1,280 km
Category 3: 2,020 km

Significantly more kilometers of waterways are navigable by small wooden pirogues and wooden or steel baleinières (Category 4).

The Kasai River between Ilebo and Malela is navigable throughout the year. However, there are a number of difficult passages caused by sandy shelves, moving sand banks, isolated rocks and rocky reefs.

Rocky stretches are infrequent upstream, but towards the mouth of the Kasai, the river bed becomes very rocky, and reefs covered in sand limit the draft of vessels to 1.3 m during periods of low water. The problematic passes downstream include the Swinburne Pass (km 176), the channel from Kandolo (km 175) to Dima (km 171), the regions near Kimbambili (km 150 to 143), Bokala (km 120 to km 115, and Mushie (km 97). Between Mushie and Lediba, the Kasai forms two large pools, the Kraal Pool (km 90 to km 65) and the Lediba Pool (km 65 to km 48), both of which are rocky areas of up to 8 kms in width with changing channels and rocky shelves. There are new channels in this section which have never been surveyed.

Assistance to RVF for surveying and charting the Lediba Pool has begun under the project and will continue under the amended project. This is a rocky section of river which is dangerous to navigate. The survey will identify navigable channels through the rocks, and these channels will be marked so they can be safely travelled. Additionally, a hydrographical study of the Kangombe Pass will be performed. This is a stretch of river characterized by continually shifting sand bars. The study will chart river channel changes and movement of the sand bars, allowing a model to be formulated. This model will provide guidance in predicting future shifting of the sand bars. The hydrographer will organize and implement on-the-job training for RVF personnel, so that charting and updating the model will continue after completion of the project. An expert hydrographer will be engaged for two years to supervise this work.

Assistance will be given to RVF to improve river marking and maintenance practices in the project area. RVF intends to rebuild the fixed river markers in the rocky sections of the Kasai River, which are essential for the safe passage of shipping. USAID will assist RVF to complete the program in a timely fashion by providing the supplies required to construct 16 fixed markers.

The communications equipment currently being used by RVF to contact the various vessels, and in particular the boats responsible for surveying and marking the rivers in the region, is inadequate and mostly worn out. USAID will provide 10 new pieces of radio communication equipment.

Assistance will also be given to RVF to undertake a reconnaissance study of the Kamtsha and Lubwe Rivers. The Lubwe is navigable for at least 150 kilometers upstream from its mouth at the Kasai river. It is narrow but, for most of the year, deep, with a strong current. In the dry season, however, the water depth is less than 1 meter, though metal boats can still navigate it carrying a load of 8 tons. The Kamtsha is navigable for at least 175 kilometers and is wider than the Lubwe. Both rivers run through very productive agricultural areas and were once extensively used for the transportation of food and other crops. The Compagnie du Commerce du Bandundu (CCB) uses the Lubwe for transporting maize, fibers and palm products to Dibaya Lubwe for onward shipment by ONATRA.

a. Design of Wooden Boats and Barges

The project area has significant timber reserves including a range of species particularly suitable for wooden boat construction. Wood with excellent working characteristics and good tropical life expectancy is available at reasonable cost. Wood-working and pirogue-building skills are widely available. There is already in existence a rudimentary wooden boat construction industry which produces a single design of boat (baleinières) along the lines of a whaleboat or dory. These boats are built by artisans at Kinshasa, Nioki, Dungu and Kutu and by builders at the sawmill at Nioki.

Wooden boats cost approximately one-fifth of the price of metal boats of a similar capacity, which facilitates ease of entry of new entrepreneurs into river transportation. Wooden boats are much more easily maintained and repaired with the skills and tools at hand than steel boats, and their holds are less prone to the condensation that inevitably shortens the life of perishable commodities, especially manioc. Their positive design feature include a very shallow draft when empty, high maneuverability, a sharp prow that makes head-on collisions unlikely and a long length relative to their beam, which makes them easily propelled through the water.

However, as presently designed, these boats have few of the construction elements necessary for durability. For example, they have no chine log, no knees, no breasthook, no stem and no heel. They are rather flimsy crafts, extrapolated beyond the reasonable capabilities of the structural elements, namely the side and bottom planking, which is usually sawn to approximately 35 mm thickness, and the ungussetted or unkneed bottom and side frames. These boats are short-lived and easily damaged. Fully loaded, they have a draft of 60 to 70 cm, and their normal speed through the water when powered by a 15 to 20 horsepower outboard is 8 to 10 km/hour.

The successful navigation of the complex network of waterways which make up the Kasai basin requires more than one type and size of boat. The currently employed craft, though they answer a critical specific requirement in the transport scheme, have too small a capacity and too short a useful life to make them economically attractive for long haul work.

One of the prime factors in the selection of a transport mode is the elapsed time to get to market with perishable commodities. The parastatal ONATRA barge system employs, for the most part, vessels with displacements of over 500 tons, which means that the time required to put together a full load is longer than the time needed to make the trip to Kinshasa. Thus, although the 950 km between Kikwit and Kinshasa could be accomplished in about three days of steady running, 20 to 30 days usually elapse between the deposit of goods on the Kikwit dock and their arrival in Kinshasa.

As already demonstrated by the project, one solution to this problem is to develop a cargo transport system with a much broader base, utilizing carefully designed vessels of less burden than the ONATRA barges and owned and operated by the private sector. The goal would be to increase the hauling capacity and modify the design of the present wooden craft, utilizing an efficient diesel propulsion system.

Diversification would fill the economic gap between investment in a wooden small boat and the current large steel vessels. Steel construction involves a level of capitalization and scope of operations beyond the reach of the average small wooden boat owner. The gap could well be filled by wooden boats or barges with larger capacities than that of the wooden boats now in use.

b. Possible Design Modifications

Project experience has demonstrated that gasoline outboards are inefficient, with a high cost of operation per ton/km. A diesel inboard of between 10 and 20 hp with a relatively large propeller turning at under 1500 rpm at rated power is a more efficient power plant. It should also be noted that diesel fuel is usually readily available in the interior of the country, while gasoline is not.

Under the project, a prototype metal barge was determined to be unsuccessful in early testing, due to the high cost of materials and a lack of local capability in making that type of vessel.

A prototype wooden boat of 25-ton capacity, designed to represent the 15-40 ton class, was constructed under the project and found to be a viable means of river transport. Diesel inboard engines were determined to be the most economical power for driving the prototype boat. Under the amended project, technical assistance will be provided for construction of a 15-ton prototype boat by the private sector, powered by an inboard diesel engine.

Testing of the 15-ton prototype wooden boat, combined with information already obtained from testing the 25-ton wooden boat, will establish the economic attraction of the 15-40 ton class of wooden boat for river transport.

4. Assistance to Road Transportation

The project area is a difficult region in which to build, improve or maintain roads. This is due to a number of factors including periodic torrential rains, highly erodable soils, excessive axle loadings and a shortage of good and economically viable sources of surfacing materials and aggregates. The project area comprises about 1,150 kilometers of roads of significant agricultural interest.

Traffic volumes on these roads are low. Traffic counts conducted under the project show an average of 25 to 35 vehicles per day on the Kikwit-Idiofa road, which carries more traffic than any other road in the project area, with the exception of the paved National Highway Number 1. The average daily traffic count on most roads is less than ten. Most of the vehicles are trucks carrying agricultural produce and passengers. Access to the roads of agricultural interest is most important during the harvest season. This period overlaps with the second rainy season, which complicates the selection of design standards.

The most serious impediment to vehicular traffic is the absence of adequate stream crossings, followed closely by the lack of maintenance. OR performs some maintenance, particularly on the Kikwit-Idiofa road. However, most roads in the project area receive no maintenance other than sporadic, localized maintenance performed by religious missions, chefs de collectivité, and local traders during the harvest season. Until recently, OR had contracted with traders and villagers to perform labor intensive maintenance in localized areas; however, due to the financial difficulties of OR and its inability to pay the laborers, this effort has ceased.

The project has already funded the construction of several bridges and culverts, which provide access to agriculturally productive areas. This project component has been very successful and will be continued under the amendment. The institutional contractor will subcontract with missions, PVOs, and other private sector entities to construct selected stream crossings. USAID and the TA contractor will establish criteria for prioritizing roadway sections to be worked on, based upon the agricultural productivity and agricultural potential of the area served, the provision of better farmer access to markets, and improved accessibility to health centers. Priority will be given to roads which will benefit other USAID and Peace Corps activities and to roads which will facilitate development of the private sector. Attention will be paid to funding the maintenance of selected problem roadways and improving approaches to existing bridges.

a. Assistance to Office des Routes

The soils of the project area are predominately poorly graded sands and silty sands, with occasional deposits of clay. There is insufficient laterite gravels or other gravel deposits within economic hauling distance to stabilize roadway surfaces, a fact recently confirmed by a satellite imagery consultancy. Office des Routes has considered several methods of road surface stabilization, including cement, bitumen, and crushed brick.

The project will fund laboratory equipment and materials for testing various types of road surface stabilization and the construction of test roadway sections utilizing materials which seem economically attractive after laboratory testing. The test sections will be 300 meters in length and positioned one immediately after another in a roadway section which will receive the same traffic volume, i.e., a section with no opportunity for traffic to enter or exit and will thus be subjected to the same axle loads. This will allow an easy comparison of the various stabilizing materials. Laboratory testing, construction supervision and monitoring of the test sections will be performed under the guidance and supervision of the project technical assistance contractor. OR has experience with soil-cement stabilization using clay. Stabilization of poorly graded sands with cement about doubles the percentage of cement required (from about 6 percent to between 10 and 15 percent). Laboratory tests following the American Association of State Highway and Transportation Officials (AASHTO) test procedures will determine the desired cement percentage. If these tests indicate that cement stabilization is economically viable, a roadway test section will be constructed.

In similar fashion, following AASHTO procedures, laboratory tests for bituminous stabilization will be conducted, and roadway test sections will be constructed if deemed economically justified. The availability of petroleum waste products will also be investigated and, depending on availability, will be tested as a possible source of low cost road surface stabilization.

Clay deposits in the project area are basically unsuitable for surfacing materials. Although pulverized clay, mixed with the natural sand and properly compacted, could provide a satisfactory road surface for present traffic volumes, the haul distance of the clay, the technology needed for construction, and the ensuing need for maintenance argue strongly against this approach. However, the clay could be cheaply made into bricks, the bricks could be crushed into gravel size particles and the particles could be transported to the construction site for use as a surfacing material. The technical and economic viability of this surfacing material will be investigated.

It must be emphasized that the project purpose is to improve the standard of living in Bandundu through improved and expanded access to comercial markets. The project will improve access to areas of agricultural potential by providing stream crossings, roadway maintenance and testing road surfacing materials for stabilizing selected troublesome locations such as steep gradients. Construction of an all-weather road for traffic volumes that do not exceed 35 vehicles per day cannot be justified economically.

Furthermore, these low volume roads should be maintained to standards which provide that the road be closed to traffic for no longer than six hours after a heavy rain during the planting and harvest seasons. This criterion implies that some road maintenance must be performed at various times during the year to ensure that the road does not deteriorate to the point where the "six hour" rule will be exceeded during the planting and harvest seasons.

5. Impact, monitoring and evaluation

A baseline study that includes traffic counts, vehicle operating costs, marketing activity, and a river transport survey has been completed under the project. The institutional contractor selected for the amendment will update this data, as required. These updates will indicate the degree to which improved access to markets, through improved river transport and the opening of roads, has affected the rural population of the project area. Concurrently, continual monitoring of agricultural activity in the project area by Project 0102 will provide information on the agricultural sector. The technical assistance contractor will monitor the behavior of the various roadway surfacing materials tested under the project, comparing construction costs and maintenance costs with life expectancy. This will help provide a basis for future road design in the project area.

B. Economic Analysis

As restated in the present PP Supplement, the purpose of Project 098 is to improve and expand the access of central Bandundu farmers to commercial markets. The project's river and road transportation and information components will contribute to this purpose both by developing infrastructure during the life of the project and by generating information -- through innovation, experimentation and analysis -- which will be useful in guiding future transportation development. This Amendment provides additional funding which will be used to expand activities under each of the project's components, building on experience gained during the earlier years of the project. The essential nature of the project is unchanged, and the original economic rationale remains valid. These points will be elaborated below.

Uses of Additional Funding

This Amendment will increase the project authorization by $5 million to a new life-of-project total of $13 million. The GOZ's direct financial contribution to the project also will increase, by $4.972 million in local currency. The allocation of project funding by major line item is shown in Section III, Table 1, above.

Functionally, technical assistance is allocated the largest share of the project's dollar budget, although this share declines from 75 percent of original funding to 65 percent of the new funding. In contrast, funding for subcontracts, construction and commodities increases from 19 percent to 30 percent, reflecting an increased emphasis on direct infrastructure investment in the PP Supplement.

Within the river transportation component, the increased funding will be used to provide technical assistance and equipment to RVF and to support development of river marketing. The assistance to RVF is targeted to improve river navigation and complements World Bank and Belgian Cooperation assistance to RVF. This assistance will be used to improve the performance of RVF, and to survey, chart and mark sections of river that hinder navigation. River marketing activities include the development of new wooden boat prototypes and efforts to study and encourage the use of the river for the evacuation of agricultural produce from central Bandundu.

Additional road transportation interventions resulting from the new funding will include primarily road maintenance and further support to OR to develop surfacing and soil stabilization methods. The road maintenance activities will be a series of minimal interventions to remove localized bottlenecks through the rehabilitation of water crossings and through keeping feeder roads passable. The new funding will also support an initial river and road transport marketing system study of Bandundu Region, which will be followed by any additional studies determined to be necessary. Expanded monitoring and evaluation activities will also be undertaken.

The additional local currency will be used primarily to co-finance road works activities. Local currency will also support improvements to river navigation as well as innovation, experimentation and analysis within each of the project components.

Economic Rationale

The economic rationale underlying the original PP is retained in this Amendment. First, it is assumed that central Bandundu has considerable underutilized agricultural potential. Central Bandundu is already one of Zaire's most important agricultural regions and, because of its potential, has become a focal area for USAID assistance, including Project 0102, the sister project to 098.

Second, it is assumed that there exists a sufficient and growing demand in urban centers for agricultural products from central Bandundu. Central Bandundu supplies Kinshasa and other urban centers as far east as the Kasais.

Third, it is assumed that there exist, in rural central Bandundu, a number of potential, discrete river and road transportation interventions which would be economically viable because benefits in the form of reduced transportation costs and increases in transportation volumes would justify costs. Transportation costs may be reduced by shortening delays and associated losses and by lowering vehicle repair and maintenance requirements. For river transportation, delays and operating costs may be reduced by assisting navigation, improving the management and maintenance capabilities of RVF, and increasing the availability of appropriate vessels in the 15-40 ton class. For road transportation, rehabilitation of water crossings and low-cost maintenance activities will cut transportation costs.

Fourth, it is assumed that interventions to improve both river and road transportation networks are needed. There appear to be strong seasonal and physical complementarities between the two transportation modes. Seasonal rains make roads impassable at certain times of the year, whereas dry periods lower water levels making some stretches of river virtually impassable. Moreover, to a certain extent, river transportation is reliant on feeder roads.

Fifth, it is assumed that producers will receive a significant proportion of the benefits of improved transportation. This is based on the perception that there is sufficient competition among both transporters and traders. As a result of this competition, it is expected that marketing margins will approximate marketing costs. Since urban food demand, particularly for manioc, is assumed to be fairly price inelastic, it is expected that costs savings will be captured primarily by the rural producer. To a certain extent, the consumer will also benefit. In fact, all parties should benefit from increases in volumes traded.

Sixth, it is assumed that information and experience gained, in both the technical and socio-economic aspects of this program, will yield a stream of benefits which will go beyond the more easily identified physical improvements made during the LOP. In the future, this increase in knowledge should help to improve resource allocation and minimize costs within the transportation sector, both in central Bandundu and throughout Zaire.

Economic Assessment

Three factors complicate the economic assessment of this project: First, as noted in the original PP, information on agricultural production, transport usage and transport costs in central Bandundu is sparse. Although several of the project's activities are intended to fill this information gap, information is presently still quite limited. Second, many of the activities are exploratory or experimental, so that the eventual benefits are highly uncertain. Third, few of the specific infrastructure investments which will eventually be funded have been identified or assessed at this stage.

Roads: Within the roads component of the project, emphasis is being shifted to rehabilitation of water crossings and low-cost maintenance and away from road upgrading and the search for surfacing materials. The intention is to maximize the availability of passable feeder roads given the very low observed traffic volumes. Recent, albeit preliminary, analyses of a proposed national program for SNRDA identify most of the area covered by Project 098 as high priority for agricultural feeder road maintenance. Crude cost-benefit analyses of the proposed SNRDA program for the Bulungu, Idiofa and Bagata zones show very high benefit to cost ratios for road maintenance projects.

Similarly, a crude break-even analysis of the road maintenance activities under the present Project 098 Amendment may be constructed using the following information and assumptions:

Road maintenance costs of $3.5 million are spread over the next 3 years.

Given a baseline estimate of 2500 tons per week of agricultural produce exported from the Kwilu subregion (see Johan Fagerskiold, "Baseline Study for the Kwilu Subregion," forthcoming), and adjusting upwards to account for additional population in the project area but outside the Kwilu subregion, a base estimate of 145,000 tons per year of agricultural exports is used.

Project benefits are limited to transport cost savings. The project is not assumed to have an impact on the quantity of produce evacuated. Rather trade increases at a rate of 3 percent per year, reflecting population growth.

Costs and benefits are discounted over an assumed 20-year life of investment using dollar values and 8 percent inflation. No project costs are assumed after year 3. (Note that bridges are planned to last more than 20 years.)

Under these assumptions break-even occurs at savings of $1.70 per ton. Using a recent baseline estimate of transport costs for manioc (see Louis Berger International, "Commercial Survey Baseline Study," October 1988), this implies that it would be necessary for the project's road component to reduce all transportation costs within the region over the next 20 years by 2.2 percent for the project to be viable. However, this savings factor would be reduced if shadow pricing is used to compensate for overvaluation of the zaire, or if it is assumed that the road maintenance will lead to higher volumes being traded than would be the case without the project. Since rehabilitation and maintenance activities will retard the deterioration of the road network and will focus on areas where agricultural output is being expanded, such as Project 102's and other donors' project areas, this last assumption is reasonable.

The foregoing analysis underscores the importance of assessing each road intervention before subcontract or PAR approval to guarantee that it will contribute to reducing transportation costs and increasing trade, and that it is cost effective.

Rivers: USAID's assistance to Regie des Voies Fluviales will be coordinated with the Navigation Improvement Project supported by the World Bank and Belgian Cooperation. Under Project 098, USAID will provide commodities and technical assistance to RVF primarily to improve navigation on the Kasai and Kwilu Rivers. The $25 million RVF component of the joint Navigation Improvement Project is designed to improve RVF's management of Zaire's river navigation system, particularly on the Zaire and Kasai Rivers. The World Bank (IDA) is providing approximately 42 percent of the project funding for RVF, the Belgians, 29 percent, and the GOZ, 23 percent. Although the RVF component of Project 098 constitutes less than 10 percent of the joint financing for the organization, USAID's assistance is considered to be essential to the success of the coordinated aid package.

In its 1987 appraisal report, the World Bank estimated that the RVF component of the Navigation Investment Program would have an acceptable 19 percent economic rate of return (ERR). This estimate is based on traffic projections on the Zaire and Kasai Rivers and assumes significant reductions in travel times and accidents due to improvements in navigation resulting from the project. The primary benefits of the project are thus reductions in operating costs and the costs of financing stocks in transit. Sensitivity analysis revealed that the EER would drop to 15 percent if estimates of traffic increases were halved and that projects are highly sensitive to assumptions about the productivity of RVF in maintaining navigation aids.

No separate analysis has been conducted for the USAID portion of the RVF package because it is so highly integrated. Although the users of longer-range river transport services will be the primary beneficiaries of the RVF assistance package, farmers, traders and transporters within central Bandundu will also benefit from improved access to points both up- and down-river, and from reduced transportation costs, delays and losses.

Studies and Innovations: A number of individual activities under this project are intended to generate information -- through experimentation, innovation, data collection and analysis -- to guide future technical and resource allocation decisions. Technical activities include the continuing support of OR road materials research and the development of boat prototypes. Several studies look at socio-economic issues, such as agricultural and transportation baseline studies, and river marketing studies. No attempt is made here to assess the likely economic impact of these activities.

Research Issues

As this economic analysis has indicated, there are a number of unresolved research issues relating to this project's objectives. This project provides for a range of relevant research activities, several of which are already under way. These and related Mission research activities are summarized below, followed by recommendations for additional research.

Research Plans: An initial river and road transport marketing system study will be carried out before the arrival of the new institutional contractor by a team of experts hired under an Indefinite Quantity Contract. This study will use existing data and personal interviews with marketing and transport participants to obtain an overview of the river and road marketing and transport system for Bandundu Region.

The critical issue of food supply and demand linkages between Kinshasa and rural Bandundu will be examined under a cooperative agreement with Cornell University. One aspect of this research will relate to the determinants of Kinshasa's demand for domestic agricultural products and its responsiveness to underlying macroeconomic conditions.

The collection of baseline data on river and road traffic flows and transportation costs is well under way as part of this project. It will be possible to replicate these studies at a later date for purposes of assessing economic change and project impacts.

Similarly, the project is collecting baseline data on marketing activity as an indirect means of judging changes in consumption levels of the target populations in central Bandundu. This work is complemented by extensive research on agricultural production in Bandundu recently conducted by the Katholieke Universiteit Leuven of Belgium (the "Tollens Group"). As part of the Cornell University research, an analysis of marketing and transportation costs is planned. Together these activities should provide new information on marketing and transport costs and prices. In addition, they should help to validate assumptions concerning the degree of competition in these markets and the implications for producers' incomes.

This project amendment also provides for studies of the following topics:

demand for river transportation services and the market for new types of boats;

decentralization of the GOZ's road maintenance activities; and

technical studies of specific road construction materials and methods which may lead to road costs savings in future road works projects.

Recommendations for Additional Research: While the results of the initial river and road transport marketing system study will play an important role in determining the project's research agenda, it is at present thought that it might be worthwhile to undertake a closer examination of constraints to the growth in transportation usage. With respect to road transportation, the availability of trucks and truck spares is a critical issue. Among the questions to be examined are: Is the use of roads constrained by a shortage of trucks and spare parts? Would GOZ or donor intervention to stimulate the supply of trucks and spares be appropriate? Are trucks being used rationally given prevailing economic conditions? Could trucking costs be reduced by changing trucking practices? With respect to river transportation, further research should be directed to institutional constraints to river transportation and to overcoming the critical problem of theft and corruption.

The recent baseline study of consumption and marketing suggests that significant inefficiencies may exist due to the lack of intermediairies to assume marketing and transportation risks and to perform bulking functions. The apparent result is that there are a large number of traders with very slow turnover, particularly in the market for manioc.

With the completion of specific infrastructure investments it should soon be possible to conduct preliminary case studies of subproject costs and benefits. In the longer run, it will be important to analyze the trade-offs between investments in river and road transportation.

The decentralization research proposed for the project should include analysis of alternate sources of financing for the roads. When the USAID project ends, alternate sources of funding for road maintenance will be required. In this context, the role of the SNRDA should be examined.

Finally, a critical area for research concerns the contribution of the project to its overall goal: raising the living standards of the target population. To the extent that the project is successful in raising producers' incomes by reducing transportation costs and increasing sales, how will this contribute to raising living standards? It will be important to examine both household level and intra-household level consumption and health status. Existing analysis suggests that increased access to roads and higher sales of agricultural output may be perversely associated with declining nutrition status among children. Nutritional status data was collected from health facilities in the project zone during December 1988 and may be used to monitor the nutritional effects of development in central Bandundu.

C. Social Soundness Analysis

The social soundness analysis carried out in the Kwilu subregion of Bandundu in 1984 as part of the design of the Agricultural Marketing Development III Project Paper (660-0098) emphasized a number of positive factors regarding the project area that increased the chances of project success. To start with, the area is very mixed ethnically. This means that the local population is accustomed to different types of social organization and cultural practices. Everyone speaks several local languages and is aware that there are alternative ways for doing things. In the view of the Project Paper, this heterogeneity could well play an important role in the spread of new technologies and information.

The PP stressed that the villages of the Kwilu subregion were not stagnant, rigidly unchanging and homogeneous units. For one thing, due to local custom, most women spend their married lives in neighboring villages, where they are not directly related to most of the other women in the village. This practice means that they are forced to learn new ways, including different agricultural techniques. Added to this traditionally dynamic situation are the effects on the entire rural population of primary, education, as well as migration to regional and national urban centers. When all these factors are taken together, the villages are shown to have wider and more frequent contacts with the outside world and a greater internal dynamic than would appear likely at first sight.

The social soundness analysis for the PP revealed that village cultivators needed more information in order to improve their agricultural techniques. They were, however, aware to a remarkable degree of the continuing constraints on their productivity and the problems that needed to be overcome to increase and regularize the commercialization of their surplus food production. The paved road from Kinshasa, which reached Kikwit in 1977, was found to have played a major role in opening up the Kwilu subregion economically. For most of the project area, it was only with the coming of the paved road that the major food crops, particularly manioc, became important cash earners and village farmers began making a serious effort to change from subsistence to cash crop cultivation. The PP reported a strong feeling among village cultivators that life could get better and that the future lay with agriculture.

Evidence gathered from the field since the completion of the 098 Project Paper indicates that social conditions, including receptivity to change, remain basically as they were described in 1984. The most recent corroboration took place during the summer of 1988 when a social soundness analysis, which included a field visit, was carried out in the Kwilu subregion as part of the design of the Small Project Support Project (660-0125). Similar feedback has come from the recently completed Fish Culture Expansion Project (660-0080), which had 32 posts in the Bandundu region. Project 080 found that villagers were receptive to change when the economic benefits were clear to them. The fish farmers readily adopted improved fish raising techniques and even organized fish farmer groups on their own initiative.

In the project area, women continue to be more actively involved in agriculture than men. They spend more time than men in the fields, obtaining fields as young women and cultivating them into old age. There is, however, an increasing tendency for men to become more involved in farming and herding as hunting, previously an important source of revenue for men, becomes less profitable due to a decline in the animal population. Fish farming, an activity of considerable importance in the Bandundu region, is undertaken primarily by men.

The 098 project, as amended, will continue to be of particular benefit to women. Improvements in river and road transport will allow agricultural produce grown by women to be more easily marketed. Additional direct positive effects on women would arise from any project-related increase in general trading activity because a significant proportion of the small-to-medium-sized traders in the project area are women. Similarly, women comprise a high proportion of baleinière owners, who would benefit from increased marketing activity on the rivers.

The problems connected with rehabilitating and maintaining roads have, if anything, grown more acute since the PP was written. Office des Routes has suffered from severe financial difficulties and finds it increasingly hard to carry out its responsibilities. Another negative development affecting road transport since the 098 Project Paper was completed is the growing tendency--which was clearly identified while designing the 125 Project Paper--for Plantations Lever au Zaire (PLZ) and other plantations to reduce their activities in Bandundu Region. According to a PLZ spokesman, the company prefers Equateur and Haut-Zaïre Regions because of their better growing climate.

Though the pullout of the plantations will take several years, it has already resulted in some secondary roads not being maintained that were formerly in the domain of the large concessions. NGOs and private companies have in some cases stepped in to fill the gap, but in other instances alternative bridge repair and road maintenance have not been organized. An example of what has happened as a result of the plantations' pullout occurred last summer when the 125 PP design team went to visit a fish farmer only 20 Km outside Kikwit but was unable to drive directly to his farm because a bridge was broken that had formerly been maintained by PLZ.

The pullout of the plantations has also exacerbated scarcities of goods in Bandundu Region because the companies had been responsible for supplying many consumer products. At the same time, however, their withdrawal has opened up new opportunities for small producers and traders--the project's target group--who now have a larger share of the market to themselves.

D. Administrative Analysis

Implementation of the 098 project from 1 January 1990 to 31 December 1992 (PACD) will require a single major contracting action during CY 1989 in order to procure the services of a qualified technical assistance contractor. The organization selected will carry out project activities after the expiration of the present technical contract with Louis Berger International on 20 December 1989. The timing of the RFP, evaluation of proposals, selection, and contract negotiations will be critical to a smooth transition from the existing team to the next one. This essential timing has been coordinated with the Regional Contracting Officer, and it is expected that the RCO will make a contract award early in November 1989.

The follow-on long-term technical assistance team will be based in the Bandundu commercial center of Kikwit. The 098 Project Officer and the USAID Executive Office will work with the head of the Bandundu Support Unit (BSU) to ensure that advance logistics are completed before the end of 1989. Housing and office space for long-term contract personnel will be rented and necessary improvements will be made in order to avoid any delays in implementing the remaining three years of the project.

Long-term technical assistance will include:

1. a Chief of Party, a civil engineer who will have overall responsibility for implementing the project;

2. an Administrative Officer, who will be responsible for all team logistics, office management, procurement and project accounting;

3. an Information Specialist, who will be responsible for monitoring the project, including updating the baseline data, and supervising short-term TA brought in to do analyses, impact assessments and other types of studies; and

4. a Hydrographer, the only team member permanently assigned to Kinshasa, who will work with RVF on improving navigation on the rivers.

The long-term technical assistance team will be authorized to hire a full office staff in Kikwit, as well as a limited number of employees in Kinshasa to help with administrative and logistical matters. The contractor will handle all the logistics for the short-term consultants who will carry out various studies under the project and also give administrative/logistical support to TA personnel working on the Decentralization: Finance and Management Project.

The shift of administrative responsibility to the contractor will ensure that the project-generated workload on USAID staff is kept to a minimum.

E. Environmental Considerations

This PP Supplement contains no components affecting the natural or physical environment not considered in the original Initial Environmental Examination (IEE) for the project. The Regional Environmental Officer (REO), REDSO/WCA, has reviewed the proposed PP Supplement components and has determined that they neither constitute nor include changes in the scope or nature of the original project which may have an environmental impact not previously assessed per the provisions of 22 CFR 216. 3(a)(9).

VII. CONDITIONS AND COVENANTS

1. Conditions Precedent to Disbursement

a. First disbursement

Prior to first disbursement under this amendment, or to the issuance by A.I.D. of commitment documents pursuant to which disbursement will be made, the Grantee shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D., a statement of the name of the person holding or acting in the office of the Grantee, and of any additional representatives, together with a specimen signature of each person specified in such statement.

b. Disbursement for Local Cost Financing

Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, to finance local costs, the determinations required by Chapter 18A1c of A.I.D. Handbook 1, Amendment B, shall have been made.

2. Covenants

a. Private sector

The Cooperating Country shall covenant, through Office des Routes (OR) and the Service National des Routes de Desserte Agricole (SNRDA), to cooperate with A.I.D. in developing methods for increased participation of the private sector in road maintenance and rehabilitation and, through OR and SNRDA, to utilize the methods developed to encourage private sector activity for road maintenance.

b. GOZ support

The Cooperating Country shall covenant (a) to make available in a timely fashion all necessary budgetary and human resources needed by the Grantee's participating organizations and (b) to establish and maintain a separate account, or accounts, through which all GOZ project expenditures will flow.

c. River transport

The Government of Zaire, through the Régie des Voies Fluviales, shall covenant to encourage and support free and open shipping along the entirety of the navigable river system of Zaire.

ANNEX A
LOGICAL FRAMEWORK
AGRICULTURAL MARKETING DEVELOPMENT III
(660-0098)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Goal: To raise the standard of living of the rural population of central Bandundu.	1. Increased per capita sales of basic consumer goods. 2. Increased agricultural production and sales. 3. Increased utilization of community-based health care services. 4. Lower incidence of child and infant malnutrition.	1. Market surveys. 2. Comparisons with agricultural baseline studies, project evaluations, GOZ agricultural statistics.	1. Economic stabilization encourages investment in rural areas. 2. Liberalization of agricultural markets continues, encouraging a greater volume of trade.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	Means of Verification	Important Assumptions
Project Purpose: To improve and expand the access of central Bandundu farmers to commercial markets.	1. River transport is cheaper and more reliable due to improved navigability and an increase in the number of boats. 2. Due to road improvements, farmers have increased their marketing activity in project areas where road improvements have been made. 3. Reorientation of annual regional road maintenance program. 4. Information gathering, studies and other types of research have more clearly revealed the nature of Bandundu's Region's transport problems and suggested the most promising courses of action.	1. Project studies and evaluations on river transport, GOZ statistics. 2. Primary and secondary marketing statistics obtained from GOZ, market surveys and evaluations. 3. Project monitoring and evaluations. 4. Data gathered and studies and reports prepared.	1. GOZ will continue liberalization of river transport. 2. Traders have the capacity to increase their market activity. 3. Donors and GOZ will continue to to finance maintenance to keep roads open. 4. OR will cooperate in implementing regional road maintenance programs. 5. Studies can be designed, carried out and effectively linked to decision-making processes and end-of-project status indicators.

51

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Outputs: 1. Navigation on Bandundu rivers improved by RVF. 2. New types of wooden boats developed and trading on rivers. 3. Level of activity of river transport trading system increased. 4. Selective road rehabilitation and maintenance carried out. 5. Annual regional road maintenance plan developed. 6. Information gathering, studies and reports completed on major transport issues.	1. Radios installed and operating effectively on 6 RVF boats in Bandundu Region. 2. Markers in place and being maintained on 200 Kms of the Kwilu River. 3. 3 NGOs/private sector entities using Bandundu rivers for transport. 4. 12 Subcontracts/Fixed Amount Reimbursements for road rehabilitation and maintenance interventions completed. 5. Regional maintenance study completed in collaboration with OR. 6. 8 transport studies and reports completed.	1. RVF records. 2. Project evaluations. 3. Market studies. 4. Site visits. 5. OR records. 6. USAID records.	1. RVF will efficiently install, operate and maintain radios and river markets. 2. Private traders are interested in new types of wooden boats. 3. Local boat building companies have skills to build new types of wooden boats. 4. Donors and GOZ will continue to finance road maintenance. 5. OR interested in alternative approaches to road maintenance. 6. Required experts are available to undertake studies and reports.

ANNEX B

FOREIGN ASSISTANCE ACT

Section 611(a) and 611(e) Certification

Section 611 (a)

Technical advice for the original Project Paper was provided by REDSO/WCA. Technical advice for this Project Paper Amendment has been provided by the USAID/Zaire direct-hire engineer and his staff in consultation with host country engineers in Office des Routes (for selected road improvements, road surface materials testing, and bridge locations), in Régie des Voies Fluviales (for continued riverine charting and marking), and in the private sector (for wooden boat construction). Under the original project, the construction of bridges and culverts was quite a successful project component, and this activity will be continued under the project amendment. Construction of a wooden prototype boat of 22 tons capacity was also found to be promising, while construction of metal boats was determined not to be economically viable. Under the amended project, technical assistance will be provided for constructing a prototype wooden boat by the private sector having a capacity of 15 tons. This boat should serve a river transport need not currently being met.

Several procedures for stabilizing the sandy materials available for road construction in Bandundu will be tested in an effort to find an economically feasible road surface which will reduce maintenance requirements. The engineering, financial, and other planning already undertaken, combined with the knowledge gained under the project to date, has been sufficient to provide reasonably firm dollar cost estimates for these various activities.

Section 611 (e)

Experience under the project relating to road improvements and construction of bridges and culverts indicate that these road sections will be readily utilized. The prototype wooden boat that was constructed with technical assistance provided by the project has stimulated a great deal of private sector interest, as has plans for a proposed 15-ton capacity boat. Designs for this project component have emphasized increasing the boats' useful life and minimizing maintenance requirements.

Financing the maintenance costs of public facilities has become increasingly difficult for the GOZ at present due to the rapid growth of inflation. USAID and the GOZ are presently collaborating on a study to evaluate the availability and capability of private sector contractors to perform road rehabilitation and maintenance. Also, in recent months, USAID has been actively engaged with other donors (specifically the World Bank, the EEC, UNDP, as well as other donor countries) to develop long-term solutions to the maintenance problems of Zaire's infrastructure. Ways of improving the GOZ's maintenance capabilities will continue to be examined and pursued under the amended project.

The Government of Zaire has recently increased fuel prices, which will in turn increase revenues to Office des Routes and Régie des Voies Fluviales. The GOZ will have the financial and human resources to maintain and utilize the capital development components of the project.

Dennis Chandler
Director
USAID/Zaire

10 MAY 1989
Date

ANNEX C

PROCUREMENT PLAN FOR COMMODITIES AND SERVICES

A. Introduction

It is USAID's desire to have all local and offshore commodity procurement, with the exception of some items listed below as being the responsibility of the USAID Commodity Management Office (CMO), be handled by the institutional contractor following AID procurement rules and regulations. However, prior to granting procurement responsibilities to the contractor, the contractor shall specify a fixed price for the procurement service that he will provide, based on the commodity element allocated to him under this project. The contractor will also provide information concerning prior experience in the procurement of AID-financed commodities, to include the procurement methods and procedures used and those proposed to be used for the procurement, shipping and clearing of the commodities under this contract. USAID will review the contractor's procurement capabilities in depth to assess the contractor's competency and undertanding of AID procurement regulations. The contractor will be required to submit a comprehensive monthly status report to the USAID Project Officer and the CMO.

Both commodities and services will be procured during the time remaining under the project. Commodities will be procured by USAID's CMO and the institutional contractor. Services - technical assistance, USAID oversight, road rehabilitation and maintenance work and limited port improvements - will be procured directly by USAID and by the institutional contractor. All road work will be carried out under subcontracts and PARs as explained in the Implementation Plan, Section IV, above. All port improvements will be undertaken through subcontractors.

B. Commodities

1. USAID Commodity Management Office

The USAID Commodity Management Office will procure four four-wheel drive project vehicles for the technical assistance team. The present long-term technical assistance team has a total of 8 vehicles (3 in excellent condition, 2 in average condition and 3 in poor condition). Only the 3 in excellent condition are capable of travelling in the field. Since it takes a considerable period of time for vehicles, once ordered, to arrive in country, it is strongly recommended that CMO order the vehicles as soon as the Project Agreement Amendment is signed. In that way, the additional vehicles should be available for use when the new technical assistance team arrives, and there will be no delays to project implementation because of lack of vehicles. It is suggested that the vehicle model chosen be one that can be easily serviced in Zaire, such as the Toyota Landcruiser.

The CMO will procure household furniture, appliances and computers through either a GSA, Federal Supply Schedule (FSS) contractor, or the Regional Procurement Supply Office (RPSO), American Embassy at Bonn, Germany or Tokyo, Japan for the long-term technical assistance team and USAID oversight personnel. In those cases, purchase orders will be issued directly from USAID to the RPSO or the supplier for procurement under the established GSA contract. Those entities can supply quality products at lower prices than would be available to the contractor.

The advantage of using the above-mentioned FSS and RPSO procurement system is that there is no need to synopsize requirements, seek further competition, determine price reasonableness, or comply with small-business, small-purchase set aside requirements. These requirements are met by the General Services Administration and the Regional Procurement Service Office when they solicit and award their schedule contracts. All statutory requirements are met when purchases from these two agencies are made. Accordingly, orders placed under the Federal Supply Schedule or RPSO contracts may be issued without regard to further compliance with such statutory requirements. For USAID/Kinshasa, this means a savings in time and administrative costs.

2. Institutional Contractor

The bulk of commodity procurement under the project will be handled or supervised by the institutional contractor, if so qualified, on behalf of the Host Country, which is required, as a minimum, to comply with the AID procurement rules as set forth in Section 2 of AID Handbook 11, Chapter 3, concerning Host Country Procurement. At this point, it is not possible to list exactly the specific commodities that will be needed under subcontracts and PARs for road rehabilitation and maintenance, but a variety of building supplies and equipment including cement, gabions, bridge and culvert materials, hand tools and mechanical equipment will most likely be required. Under subcontracts for limited port improvements, it may be necessary to obtain gangplanks, railings, small docks, mooring equipment, and materials to construct covered storage and secure enclosures. Whenever possible these commodity requirements will be filled from shelf items currently available in Zaire, and the contractor will be responsible for seeing that the price requirement test as shown in Chapter 18A, Part 6, of AID Handbook 1, Sup B, is applied to all local procurement actions.

Should the institutional contractor be awarded the commodity procurement element, he will then be required to select a local freight forwarder to be consignee of all goods marked for the project. The freight forwarder must have a bonded custom warehouse in Kinshasa and/or Lubumbashi where goods can be shipped on a through bill of lading to either of the aforementioned locations. It will also be the contractor's responsibility to receive and prepare all shipping documents for customs exoneration and to process the documents through the Ministry of Finance.

The long-term technical assistance team's Administrative Assistant will be in charge of managing all commodity procurement, local and offshore. Offshore procurement will be carried out either by the institutional contractor's own procurement department or by a Procurement Services Administrator (PSA). The PSA's fixed fee would be negotiated by either USAID/Zaire or AID/Washington. The institutional contractor will obtain and receive approval from the Department of Finance for all documentation needed for the duty-free importation of commodities.

3. Commodity Eligibility and the Development Fund for Africa

The AID Geographic Code for the project's initial three obligations totaling $8,000,000 was 000 plus the host country. Those funds are thus subject to the source, origin and nationality regulations for goods and services set forth in AID Handbooks 1B, 11, 13, and 14. The obligations made under this Project Paper Amendment, however, will come from the Development Fund for Africa (DFA), which grants a special waiver to those regulations. The authorized Geographic Code for procurement under the DFA is 935, the Special Free World, including the cooperating country itself.

The purpose of this waiver is to ease existing procurement procedures, which were seen as impeding project implementation in Africa. The essential elements of DFA procurement rules are as follows:

- it is a revision of DOA 551 and eliminates requirements for source/origin waiver only;

- it is understood that 000 source/origin, and thereafter 941 source/origin, will be used to the fullest extent possible;

- it directs field posts to formulate comprehensive procurement plans which assure U.S. purchases whenever practical, consistent with program objectives.

If the Mission chooses to finance a non-U.S., Code 935 procurement, no waiver is needed, but documentation is required to explain why Code 000 was not used. This order of preference will be documented for each procurement, as applicable. While the need for source/origin waivers has been removed, all other procurement regulations spelled out in AID Handbooks related to commodity procurement remain unchanged. For example, AID requires that all AID-financed commodities be shipped on American flag vessels, whether by air or ocean, whenever such a flag vessel is available. A waiver of the American flag requirement is needed for reimbursement of freight paid for shipment on another country registry. Should the contractor make payment to a non-American flag carrier without obtaining a waiver, then the contractor will have to refund AID for the cost of the freight.

4. Transportation and Storage

Commodities will be procured on a CIF Matadi or Kinshasa basis. Customs clearance and documentation requirements are established and have been used under other projects. Getting the commodities through customs will be the responsibility of either CMO or the institutional contractor, depending on who initiated the procurement. While most commodities will be delivered by sea and then brought up from Matadi by truck, some urgently needed or fragile items may be shipped by air.

Goods for RVF and the recipients of subcontracts and PARs will be turned over to the intended parties as soon as possible after the commodities' arrival in country and the completion of appropriate transfer documents. It is expected that the commodities will be put to immediate use.

The present technical assistance team already has adequate facilities in Kinshasa for storing commodities. The follow-on technical assistance team will secure suitable storage space in Kikwit for commodities that need to be stored.

5. Waivers

Funds for all future commodity procurements will be earmarked from the DFA. A justification for informal competition and proprietary procurement has already been issued for the procurement of spare parts for RVF. A justification for other than full and open competition will be issued for the RVF hydrographic equipment. To ensure compatibility with the radiocommunications equipment to be procured by the World Bank project with RVF, it is anticipated that a justification for proprietary procurement will be needed.

C. Services

1. Technical Assistance

a) Long-term Technical Assistance Team. AID-Direct contracting for obtaining the services of a follow-on technical assistance team will begin immediately upon execution of the Project Agreement Amendment and will be the responsibility of the REDSO/WCA/RCO. USAID will assist by developing a PIO/T containing detailed scopes of work and evaluation criteria and by evaluating the technical proposals received. The contracting schedule is contained in the Implementation Schedule given in Section IV, above.

b) Other Technical Assistance. Before the arrival of the new long-term technical assistance team, USAID will obtain the services of up to five technically qualified people under an Indefinte Quantity Contract (IQC) or through a buy-in to the centrally funded Agricultural Policy Analysis II (APAP II) Project to undertake an initial river and road transport marketing system study of the project area. USAID will also be responsible for buying into the centrally managed Decentralization: Finance and Management (DFM) Project (936-5446).

Once the new technical assistance team is in place, it will be responsible for all short-term technical assistance, including the management of all personnel brought in under the buy-in to the DFM Project. The institutional contractor's responsibilities will include drawing up scopes of work (in consultation with USAID), identifying and contracting for the required technical expertise, handling all travel and logistical arrangements, and ensuring that all reports prepared by short-term technical experts are acceptable to USAID.

2. USAID Oversight

Funds will be earmarked under the project for the services of the Project Officer, the Transport Sector Officer, an Engineer, the PDO Policy and Project Analyst, and the Director of the Bandundu Support Unit (BSU). For the first four positions mentioned above, the project will provide full funding until PACD. For the last-mentioned position, the Director of BSU, Project 098 will provide funding for the present CY and for one additional CY before PACD. The rest of the funding for that position will come from Project 102. USAID will acquire these oversight services through Personal Services Contracts.

3. Construction Services

As explained in the Implementation Plan, Section IV, above, road rehabilitation and maintenance work and limited port improvements will be carried out under the project by means of subcontracts and Fixed Amount Reibursement (FAR) agreements. USAID will procure services from OR and SNRDA for road work by entering into FAR arrangements with those two organizations, though the actual monitoring of the work, including financial oversight, will be undertaken by the institutional contractor. For procuring services from the private sector (missions, PVOs and private companies) for road work and limited port improvements, the institutional contractor will enter into subcontracts with the private sector entities involved.

PROCUREMENT PLAN THROUGH PACD
US Dollars

I. Amount obligated in ProAgs through FY88 $8,000,000

Total commodity element (under original budget in PP) $1,030,000

Items already earmarked and estimated costs

Item	Commodity Description	QTY	Unit Price	Extended Price (CIF)
1.	Furniture & other HHE	10	$29,750	$297,500
2.	Computers & accessories	8	$32,482	$259,856
3.	RVF spare parts - lot 1			$200,000
4.	RVF spare parts - lot 2			$90,000
5.	RVF hydrographic equip.			$160,000
6.	Video equipment			$2,534
Total earmarked under PIOs				$1,009,890
Total commitments under PIOs				$481,911
Remaining earmarked under PIOs				$527,979

II. Unearmarked balance in obligated funds $20,110

III. Commodity list of new procurement for remainder of project until PACD

Item	Commodity Description	QTY	Unit Price	Extended Price (CIF)
1.	Furniture & other HHE			$80,000
2.	Computers & accessories			$120,000
3.	4x4 Vehicles	4	$35,000	$140,000
4.	RVF radios			$175,000
5.	Bailey bridge			$150,000
5.	Culvert pipe			$75,000
6.	OR spare parts			$450,000
7.	Other			$237,979
	Total:			$1,427,979
Uncommitted under PIOs:				$527,979
Additional Procurement (Total - Uncommitted)				$900,000

IV. Anticipated additional LOP obligations $5,000,000

Additional commodities $900,000

V. Total LOP obligations $13,000,000

LOP Commodity portion $1,909,890

V. Recommendation: That you sign the attached Project Authorization Amendment and thereby approve an increase in the authorization amount of the grant funding from $8,000,000 to $13,000,000 and a shortening of the PACD from July 31, 1994 to December 31, 1992.

VI. Attachments:

1. Project Authorization Amendment
2. Project Paper Supplement
3. Project Agreement Amendment

Clearances on Action Memorandum for the Director to authorize an amendment to the Agricultural Marketing Development III Project (660-0098):

GWAnderson, PDO	GWA	4/24/89
PLacerte, CMO	[illegible]	4/24/89
DBrown, ARD	[illegible]	4/[illegible]/89
RMWalton, EXO	RMW	4/25/89
DDolley, CONT	[illegible]	4/28/89 CONT approval contingent upon receipt of additional $3 mil. To date mission received ABA for only $2 mil.
JBierke, PRM	[illegible]	5/5/89
BBryant, RLO	(draft)	
JGoodwin, D/DIR	[illegible]	5/10/89

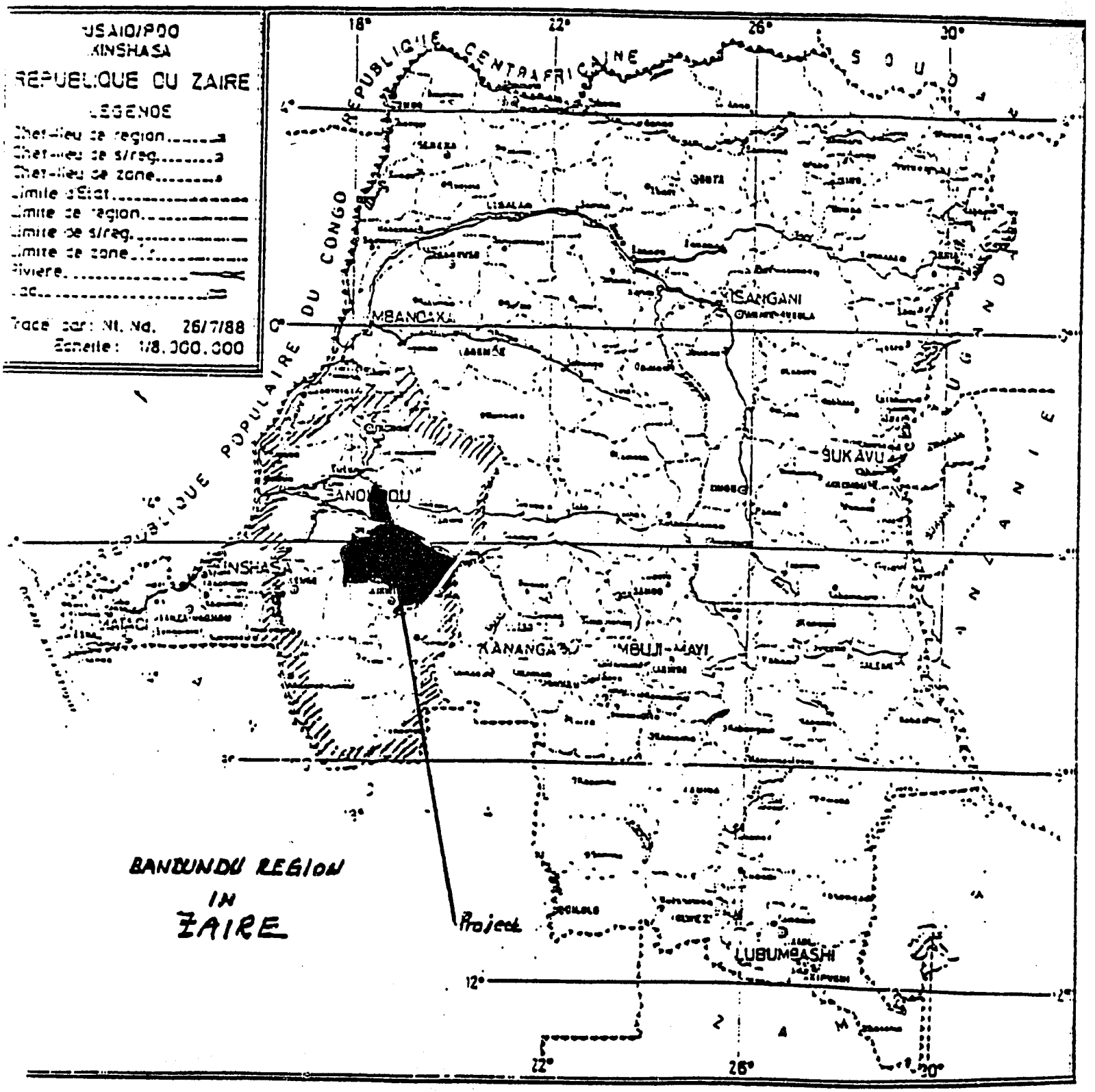
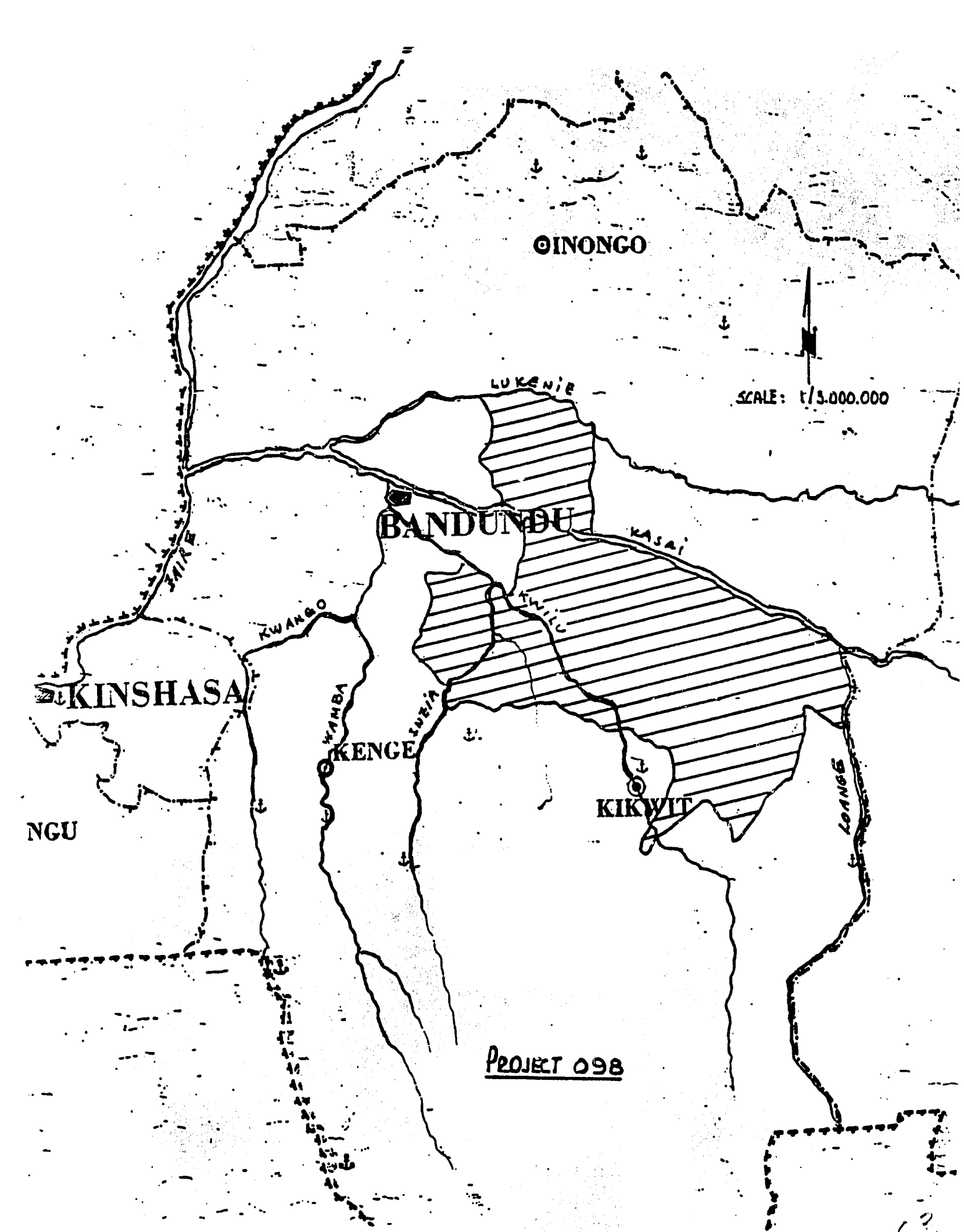

USAID/PDO
KINSHASA
REPUBLIQUE DU ZAIRE
LEGENDE
Chef-lieu de region
Chef-lieu de s/reg
Chef-lieu de zone
Limite d'Etat
Limite de region
Limite de s/reg
Limite de zone
Riviere
Lac
Trace par: NI. Nd. 26/7/88
Echelle: 1/8.000.000
18°
22°
26°
30°
4°
0°
REPUBLIQUE CENTRAFRICAINE
SOUDAN
REPUBLIQUE POPULAIRE DU CONGO
OUGANDA
TANZANIE
ZAMBIE
ANGOLA
MBANDAKA
KISANGANI
BUKAVU
BANDUNDU
KINSHASA
KANANGA
MBUJI-MAYI
LUBUMBASHI
12°
22°
26°
30°
BANDUNDU REGION
IN
ZAIRE
Project

FIG. 1


INONGO
LUKENIE
SCALE: 1/3.000.000
BANDUNDU
KASAI
ZAIRE
KWANGO
KINSHASA
WAMBA
KENGE
LUEBIA
KIKWIT
LOMAGE
NGU
PROJECT 098