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AUDIT REPORT
RURAL ACCESS ROADS I
(AID LOAN 511-T-056)
RURAL ACCESS ROADS II
(AID LOAN 511-T-061 AND GRANT 511-0466)
USAID/BOLIVIA

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RURAL ACCESS ROADS I
(AID LOAN 511-T-056)
AND
RURAL ACCESS ROADS II
(AID LOAN 511-T-061 AND GRANT 511-0466)
USAID/BOLIVIA

I. EXECUTIVE SUMMARY

A. Introduction

In 1974, only 5 percent of 24,500 kilometers of rural access roads in Bolivia were passable without difficulty during the rainy season. The lack of passable access roads has inhibited the marketing of agricultural production and the distribution of farm inputs. This, in turn, has limited the development of the Bolivian agricultural sector.

To assist the National Roads Service (SNC) to upgrade 2,200 kilometers of local roads to all-weather standards and to expand its capacity to carry out a rural roads improvement program, USAID/Bolivia (USAID) started two projects in the late 1970's that were estimated to cost \$38,670,000 (see Appendix A).

The first project (Rural Access Roads I) is financed under AID loan 511-T-056 dated September 20, 1976 and road construction is well underway. The second project (Rural Access Roads II) is financed under AID loan 511-T-061 and grant 511-0466, dated August 30, 1978. It has not entered the road construction phase yet.

B. Scope

This is an initial audit of USAID/Bolivia projects for the Rural Access Roads I and II. This examination covers the period from September 20, 1976 to December 31, 1979.

The principal objectives of our examination were to determine (1) project accomplishments (2) the effectiveness of project management by USAID/Bolivia and SNC (3) the adequacy of support provided to the projects by the National Community Development Service (NCDS), the Ministry of Campesino Affairs and Agriculture (MACA), and the participating communities and (4) compliance with program requirements.

C. Conclusions

In general, we believe the Rural Access Roads I and II projects have been well-designed. We did, however, find numerous areas where the USAID and SNC could improve the management of the Rural Roads I project in order to improve project implementation. Our conclusions are presented in the following paragraphs:

1. Project Accomplishments

The Rural Access Roads I project has been implemented much slower than planned. As of December 31, 1979, only (1) 301.3 kilometers of roads had been selected for improvements versus a target of 1,100 kilometers (2) the equivalent

of 236.9 kilometers of roads had been constructed versus a target of 750 kilometers and (3) one road was completed under an experimental program versus a target of 4 roads.

Delays have occurred in the road selection process because SNC has not prepared enough feasibility studies. The construction of roads is behind schedule because of delays in equipment procurement, shortages in cement, equipment downtime, lack of voluntary labor, and delays in the construction of small structures. The experimental program has moved slowly because SNC has not given it a high priority (see page 6).

Delays in completion of the roads have prevented project resources from being used as efficiently as planned. This has increased the per kilometer cost of the roads by about 43 percent which, in turn, could reduce the cost-benefit ratios for the project as well as for the roads being built under the project (see page 4).

2. SNC Management

Our review of SNC management disclosed numerous weaknesses that need to be corrected. The review and approval procedures established for the selection of road projects have not been followed. The project implementation plan is not realistic. Hand tools have been purchased in excess of needs. Loan-financed explosives have been used for non-project purposes. Project accounting and property management records are not adequate. Cash advances have not been promptly liquidated. Ineligible costs may have been financed under the loan. The independent audit of SNC books and records did not comply with AID scope requirements. SNC salaries are too low to attract and retain qualified employees. The GOB has not contributed to the project all of the funds required by the loan agreement (see page 8).

3. Support of GOB Participating Institutions

Two GOB institutions (NCDS and MACA) have not supported the project as required by agreements signed with SNC because of insufficient GOB budgetary support and cooperation. As a result, project implementation has been delayed because of the lack of voluntary labor needed to build roads and the lack of timely data needed to prepare feasibility studies and select proposed road projects (see page 17).

4. Technical Assistance

In general, the technical assistance provided to SNC could have been better. There were a few deficiencies in the quality of services provided but, more importantly, the quantity of services provided was considerably less than planned. We believe that some of the project problems could have been avoided and corrected in a more timely manner if the technical assistance had been provided to SNC as planned (see page 19).

5. USAID Management

We believe that USAID will have to monitor this project more closely than has been done in the past in order to identify and/or correct problems on a

more timely basis. This would include ensuring that the project review and approval procedures are being followed (see page 9); that NCDS is providing effective promotion to the project (see page 17); that the project selection process is proceeding as a planned (see page 6); that field trip reports document significant problems of a continuing nature (see page 20) and that requests for corrective action, such as the preparation of a revised implementation plan, are promptly complied with (see page 10).

The USAID has been very responsive to this audit. While the audit was in process, we presented our draft findings to the USAID and they acted promptly to start correcting the problems. On March 27, 1980, the USAID wrote the Minister of Transportation advising him of the deficiencies disclosed during our review and pointed out that the USAID was considering the suspension of activities under the Rural Roads II project. To follow-up on the problems cited in the letter, top USAID officials met with the Minister of Transportation and representatives from SNC and NCDS on April 2, 1980. The USAID asked GOB officials to take the necessary corrective action within 60 days so AID could make a determination whether to continue the program.

D. Recommendations

As a result of this audit, we made 13 recommendations to improve the implementation of the Rural Access Roads I project. These recommendations were made to improve the use of project resources, reduce the cost of project implementation, improve records, obtain compliance with program requirements and improve project implementation planning.

Prior to the publication of this report, the USAID implemented one recommendation included in our draft report and started action to implement other recommendations.

II. BACKGROUND

A. Scope of Audit

We have made an initial audit of USAID/Bolivia Rural Access Roads I and II projects. Our examination covers the period from September 20, 1976 to December 31, 1979.

The principal objectives of our examination were to determine: (1) project accomplishments, (2) the effectiveness of project management by USAID/Bolivia (USAID) and the National Roads Service (SNC), (3) the adequacy of support provided to the projects by the National Community Development Service (NCDS), the Ministry of Campesino Affairs and Agriculture (MACA), and the participating communities, and (4) compliance with program requirements.

Our examination was made in accordance with generally accepted auditing standards and included (1) discussions with officials of the USAID, SNC, NCDS, MACA and the participating communities (2) the review of records of the USAID and SNC (3) field trips to the project areas in the Departments of Cochabamba, Santa Cruz and Chuquisaca and (4) such other auditing procedures as we considered necessary.

B. Description of Projects

In 1974, only 5 percent of 24,500 kilometers of rural access roads in Bolivia were passable without difficulty during the rainy season. The lack of passable access roads has inhibited the marketing of agricultural production and the distribution of farm inputs. This, in turn, has limited the development of the Bolivian agricultural sector.

To assist the Government of Bolivia (GOB) to upgrade local roads to all-weather standards and to expand its capacity to carry out a rural roads improvement program, the USAID started two projects in the late 1970's.

The first project (Rural Access Roads I) is financed under AID loan 511-T-056 dated September 20, 1976 for \$8,500,000. The original estimated completion date was December 6, 1980.

The second project (Rural Access Roads II) is financed under AID loan 511-T-061 and grant 511-0466 dated August 30, 1978. The loan is for \$13,000,000 and the grant for \$300,000. The original estimated completion date was August 30, 1983.

The implementing agency for both projects is the National Roads Service (SNC) of the Ministry of Transportation, Communications and Civil Aviation.

The goal of the projects is to increase the per capita income and improve the standard of living of Bolivia's rural poor.

The purpose of the projects is to (1) improve access to the small farm sector by upgrading 2,200 kilometers of local roads to all-weather standards (1,200 kilometers under Rural Roads I and 1,000 kilometers under Rural Roads II) and (2) expand and improve the capacity of SNC and participating institutions to carry out a rural roads program. At the completion of the projects, it is expected that 52,000 small farm families will be benefited by improved access to input and product markets (15,000 farmers under Rural Roads I and 37,000 under Rural Roads II).

Project activities are to be focused in the Departments of La Paz, Cochabamba, Chuquisaca and Santa Cruz under the Rural Roads I project and in Chuquisaca, Potosi and Tarija under the Rural Roads II project.

Road construction under both projects is to be done by SNC personnel using loan-financed equipment, voluntary labor provided by local communities and contractors to build small structures.

Under the Rural Roads I project, NCDS and MACA are responsible for gathering data needed by SNC to evaluate the feasibility of the road projects. NCDS is also responsible for promoting the projects and organizing community labor. Representatives from SNC, NCDS and MACA are to form a committee at the National level to select road projects in accordance with established criteria.

Under the Rural Roads II project, the Departmental Development Corporations (DDC's) are responsible (with assistance from SNC) to evaluate the feasibility of the road projects. The DDC's are also responsible for promoting the projects and organizing community labor. Representatives from the DDC's and SNC are to form the road selection committee at the Departmental level.

The communities are to form road committees under both projects. The committees are to sign agreements with SNC to provide voluntary labor for the construction and minor maintenance of the roads. Major maintenance is to be performed by SNC. The community road committees are to appoint a monitor who is to manage the responsibilities of the committees.

The estimated cost of both projects is \$38,670,000 including GOB and community contributions (\$15,570,000 under Rural Roads I and \$23,100,000 under Rural Roads II). Loan and grant funds are to be used for construction and other equipment, hand tools, construction materials, technical assistance and contract costs for the construction of small structures such as culverts, fords, small bridges and concrete slabs (see Appendix A). In addition, loan funds are to be used for the purchase of maintenance equipment for SNC workshops under the Rural Roads II project. SNC is to establish and fund a new Rural Roads Department (RRD) which is to be responsible for the implementation of the projects. Construction work is to be planned and carried out by SNC personnel using loan-funded construction equipment and voluntary labor provided by the communities. The DDC's are to fund one-half of SNC's expenses for construction and engineering personnel and equipment operation under the Rural Roads II project.

Technical assistance is to be provided to SNC under both projects. Under the Rural Roads I project, \$200,000 of loan funds was budgeted for two technical advisors for 3 years each. One of the technicians was to assist the Director of the RRD in overall program planning and implementation and the other was to provide

advice in equipment operation and maintenance. Under the Rural Roads II project, \$300,000 in grant funds are to be used to finance about 48 work-months of technical assistance in engineering, training and road selection criteria.

As of December 31, 1979, the obligation and disbursement status of AID funding was as follows:

	<u>Obligations</u>	<u>Disbursements</u>
1) <u>Rural Access Roads I</u>		
AID Loan 511-T-056	\$ 8,500,000	\$5,992,570
2) <u>Rural Access Roads II</u>		
AID Loan 511-T-061	13,000,000	-
AID Grant 511-0466	<u>300,000</u>	<u>8,358</u>
Total	<u>\$21,800,000</u>	<u>\$6,000,928</u>

C. USAID Management

The project is managed by one U.S. and one Bolivian engineer assigned to the USAID's Office of Engineering.

D. Other Comments

The rate of exchange used in this report is 20.38 Bolivian Pesos to \$1.00 unless otherwise noted.

III. AUDIT FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

A. Rural Access Roads I Project

1. Project Accomplishments

The project has been implemented much slower than planned. As of December 31, 1979 only (1) the equivalent of 236.9 kilometers of roads had been constructed versus a target of 750 (2) 301.3 kilometers of road projects had been selected for improvement versus a target of 1,100 kilometers and (3) one road was completed under the experimental program versus a target of 4 roads. SNC has established a Rural Roads Department (RRD) as required under the loan but the management capability of the RRD has not been fully tested because the project has been operating at very low rates of efficiency.

a. Construction of Roads

The construction of roads has moved much slower than planned. As of December 31, 1979, work had been started on 20 roads totaling 337.6 kilometers; 2 of these roads for 24.5 kilometers have been completed and 18 roads for 313.1 kilometers are in process. Of the 20 roads started, only the equivalent of 236.9 kilometers had been completed as of December 31, 1979 versus a target of 750 kilometers given in the project implementation plan prepared by SNC (see Appendix B).

Delays in the completion of the roads increases the cost of the roads because project resources cannot be used as efficiently as planned and because of inflation. This, in turn, could reduce the cost-benefit ratios for the project as well as for the proposed road projects. We have estimated that the cost per kilometer has increased by about 43 percent from \$9,853 for the 1,200 kilometers planned under the project to \$14,062 for the 236.9 kilometers of road built as of December 31, 1979 (see Appendix C). The cost per kilometer has increased mainly because the fixed costs for equipment depreciation and SNC operations have been spread over fewer kilometers than planned.

The project was initially delayed because it took 6 months longer than planned to procure project equipment. As a result, the construction of roads did not start until September 1978 versus a planned date of March 1978.

The project has been further delayed since September 1978 because the construction of roads has moved at about one-half the planned rate. We estimate that it will take an average of about 12 months to complete the 20 projects that have been started versus a planned time of about 5.9 months (see Appendix B).

If we assume no improvement in the rate of construction progress achieved in CY 1979 (when the equivalent of 214.7 kilometers of roads were built), then it will take 5.8 years ^{1/} to build the 1,200 kilometers planned for the project versus 2.8 years estimated in the project implementation plan.

¹ As of December 31, 1979, the roads have been under construction for 16 months or 1.3 years. We estimate it will take additional 4.5 years to complete the remaining 963.1 kilometers assuming a rate of progress of 214.7 kilometers per year.

Thus, this would delay the completion of the project until June 1984 versus a planned date of December 1980. We believe, however, that with anticipated improvements to be made in project implementation as discussed below, the project can be completed before June 1984.

In addition to the above, the principal problems of a continuing nature which have delayed the construction of the 20 road projects are listed below:

<u>Problem</u>	<u>Percentage of Projects in which Problems Have Occurred</u>
1) Shortages of Cement	55%
2) Equipment Downtime	45%
3) Lack of Voluntary Labor	50%
4) Delay in the Construction of Small Structures	95%

Shortages of Cement in the local market during the last six months of 1979 delayed the construction of drainage facilities and other small structures. This is no longer a problem because the supply of cement in Bolivia has been adequate since January 1980. Also, the USAID has ordered plastic pipe under the loan to serve as a substitute for cement pipe and also to provide other sizes of pipe not available in the local market.

Equipment downtime has also delayed construction progress. Equipment operations have suffered from a lack of spare parts and the rapid deterioration of the tires of the front loaders. These problems are now in the process of being resolved. Most of the spare parts purchased under the loan have now been cleared out of customs after average delays in customs of 7 months and the parts are being distributed to the field offices. Also loan funds are being used for replacement tires ordered for the front loaders.

The lack of voluntary labor, which the communities were to provide, has been a major constraint. The failure of NCDS to effectively promote the project was the main cause of this problem which is analyzed on page 17 of this report.

Delays in the construction of small structures such as drainage facilities and bridges has been one of the most serious problems. This has adversely affected the completion of all but one of the 20 roads. Eight roads have been damaged because SNC was not able to get the drainage structures built before the rainy season. The loan agreement allocated \$290,000 to finance contracts to build small structures. However, SNC has not used any of these funds because they wanted to build the structures themselves by using their own masons and voluntary labor in order to save money. But, SNC was not able to build the structures as fast as planned because the communities did not provide enough labor to work with SNC masons. At the urging of the USAID in October 1979, SNC submitted three proposals to the USAID for approval on the procedures to be used to contract for small structures. It appears that the third proposal, submitted in March 1980, will be approved by the USAID, thus permitting the correction of this problem.

In sum, it appears that all of the significant problems adversely affecting construction progress have been or were being resolved as of

December 31, 1979, except for the lack of voluntary labor. We have included a recommendation to correct this problem on page of this report.

b. Approval of Road Projects

The National Road Selection Committee (Committee) has not selected road projects as fast as planned because SNC has not prepared enough feasibility studies and MACA and NCDS have not cooperated in providing input data needed for the studies as required. The failure to approve enough projects could (1) require that equipment be moved greater distances between projects than would otherwise be necessary if more projects were approved in an area and (2) delay the starting of new projects because of the lack of approved projects. Also, it has resulted in the starting of one unapproved project because SNC did not have any approved projects in the area on which to use its equipment (see page 9).

As of December 31, 1979, 18 projects for 301.3 kilometers had been approved by the Committee versus a target of 1,100 kilometers estimated in the project implementation plan. The lack of a sufficient number of completed feasibility studies will prevent the approval of many more projects. As of December 31, 1979, there were only 6 unstarted projects with completed feasibility studies. Feasibility studies have not been prepared as required because the SNC project economist, who was supposed to do the studies, has been assigned to the SNC Accounting Department since October 1979 and NCDS and MACA have not cooperated in providing data needed for studies (see page 17).

To ensure that project progress is not delayed for the lack of a sufficient number of approved projects and equipment is used as efficiently as possible, we believe that USAID should require SNC to develop a work plan and ensure that adequate staff is provided to start preparing feasibility studies.

Recommendation No. 1

USAID/Bolivia should require SNC to develop a work plan and ensure that adequate staff is provided to prepare a sufficient number of feasibility studies for proposed road projects.

c. Experimental Program

The experimental program has moved much slower than planned because SNC has assigned it a low priority. Delays in completing the program prevent SNC from obtaining data that could help them improve the management of its rural roads program.

The plan approved by the USAID for the program called for the completion of 4 roads by July 1978. As of December 31, 1979, SNC had started two roads of which one has been completed. The other two roads have been selected and design work has begun.

The loan agreement allocated \$200,000 to finance the implementation of the program. The purpose of the program is to identify a broader range of options for the more efficient use of human resources. The program is to

explore the use of labor intensive methods and the adaptability of farm machinery and equipment in road construction and maintenance.

As the USAID has very little information on this program, we believe they should review progress with SNC to determine whether it has been carried out in accordance with the procedures established in the program plan and require SNC to correct any problems identified.

During our exit conference on May 5, 1980, the USAID indicated that a contract advisor has recently arrived who can work with SNC to improve the experimental program.

Recommendation No. 2

USAID/Bolivia should (1) review the progress of the experimental program with SNC to determine whether the program has been carried out in accordance with the procedures established in the program plan and (2) require SNC to correct any problems identified.

d. Planned Changes in Project

On August 27, 1979, the USAID and SNC agreed through Implementation Letter No. 13 that SNC should start conversations with 4 DDC's to involve them in the project. The USAID suggested that SNC sign agreements with each of the participating DDC's which set forth the responsibilities of both SNC and the DDC's along the lines of the Rural Access Roads II project.

Under these circumstances, the participation of NCDS and MACA in the project would no longer be needed to promote projects, organize community labor, and provide input data for feasibility studies. Also, most of the burden for preparing feasibility studies would be shifted from SNC to the DDC's. The USAID and SNC believe that this reassignment of responsibilities will improve project implementation.

Although SNC and the Minister of Transportation have started conversations with the DDC's, none of them had agreed to participate in the project as of April 30, 1980. The response of the DDC's has been varied. Some have shown a keen interest in the project while others lack funds to participate or do not like the idea of joining an on-going project. In spite of these difficulties, the USAID and SNC are moving ahead with their plan to try to involve the DDC's in the project.

e. Rural Roads Department of SNC

SNC has established a separate Rural Roads Department (RRD) to plan and implement a rural roads improvement program as required by the loan. The RRD was staffed with 293 employees as of December 31, 1979. It has a Central Office in La-Paz and four Resident Offices in the Departments of La Paz, Santa Cruz, Cochabamba and Chuquisaca.

The management capability of the RRD has not been fully tested because the project has not been operating at the planned levels of efficiency. We believe that if the existing problems delaying project implementation are corrected, management weaknesses in the RRD organization will surface as they try to use their resources more efficiently.

2. SNC Management

Our review of SNC management disclosed numerous weaknesses that need to be corrected. The review and approval procedures established for the selection of road projects have not been followed. The project implementation plan is not realistic. Hand tools have been purchased in excess of needs. Loan-financed explosives have been used for non-project purposes. Project accounting and property management records are not adequate. Cash advances have not been promptly liquidated. Ineligible costs may have been financed under the loan. The independent audit of SNC books and records did not comply with AID requirements. SNC salaries are too low to attract and retain qualified employees. The GOB has not contributed to the project all of the funds required by the loan agreement. Our review of these problems follows:

a. Road Selection Procedures

The project participants have not followed the review and approval procedures established for the selection of road projects because of weak management. These deficiencies could result in the improvement of roads that do not meet the technical, economic and other criteria established for the projects or delay the completion of roads because of the lack of voluntary labor.

According to Annex I of the Loan Agreement, a National Road Selection Committee (Committee) was to be created to select the roads to be built under the project. The Committee was to consist of one voting member each from SNC, NCDS and MACA. The Committee was to be under the general direction of SNC but both NCDS and MACA were to provide information to assist in road selection. Each road project selected was to have the unanimous approval of the three voting committee members.

According to the review and approval procedures approved by the USAID under condition precedent 3.02(f) of the loan, the selection of road projects consisted of the following four ascending levels of analysis.

1) NCDS was to perform a preselection review of proposed projects. In order to pass the preselection review for a proposed project, it must connect to an all-weather road, not exceed 20 kilometers in length, serve an average farm density of at least four farms per kilometer, and serve a zone of influence which has significant agricultural potential.

2) SNC was to determine the technical feasibility of the road projects considering such matters as road alignment, types of soils, estimated quantities of earth to be excavated and the construction period.

3) SNC was also to determine the economic feasibility of the projects. The estimated benefits and costs of the project were to be determined.

In order for a project to be considered it was to have an internal rate of return equal to or greater than the opportunity cost of capital which was estimated to be 15 percent.

4) NCDS was to organize Road Committees at the community level and obtain signed agreements from the communities that they would provide voluntary labor for the construction and maintenance of the roads.

As discussed below, our review of these procedures disclosed that the Committee has not functioned with all of its required voting members. Also, out of 20 road projects started, (1) the Committee had not approved 9 projects, (2) SNC had not done studies to determine the technical and economic feasibility of 3 projects and (3) the communities had not signed agreements with SNC to provide voluntary labor for the construction and maintenance of 18 projects. Our analysis of these problems follows:

i) Attendance at Meetings of the National Road Selection Committee

The Committee has not functioned with its three voting members as required. The Committee has met four times to approve road projects. However, the representative from MACA has only attended one of these meetings because he did not comply with the written notifications received from SNC to attend the scheduled meetings. We believe MACA should attend these meetings to help ensure that the best projects are selected and because the approval of all three voting members is required for project selection (see page 17).

ii) Approval of Projects

Our review of the minutes of the meetings of the Committee disclosed that of the 20 roads started prior to December 31, 1979, the Committee had not approved the following 9 projects:

<u>Name of Road</u>	<u>Department</u>
1) San Pedro-Mejillones	La Paz
2) Mejillones-Uyunense	La Paz
3) Uyunense-Bronceni	La Paz
4) Rodeo-Casa Grande	Chuquisaca
5) Casa Grande-Redencion	Chuquisaca
6) Tarabuco-Colchapampa	Chuquisaca
7) Quepupama-Rodeo	Chuquisaca
8) Punata-Pacpani	Cochabamba
9) Antofagasta-Est. Buen Retiro	Santa Cruz

According to the Director of the Rural Roads Department:

1) The seven roads in the Departments of La Paz and Chuquisaca had been approved by the Committee but he could not find copies of the minutes of the Committee approving the roads.

2) The Punata-Pacpani road was started without the approval of the Committee because SNC wanted to use project equipment that could not be used on another road in the area because of rains.

3) He was not aware that work had begun on the Antofagasta-Est. Buen Retiro Road.

We believe it is important that SNC not start work on any roads until the Committee has documented its approval of the projects to ensure that they meet the technical, economic, and other criteria established for the projects. For example, we found that SNC had not performed studies to determine the economic viability of three projects which had been started without the approval of the Committee (Tarabuco-Colchagua, Punata-Pacpani and Antofagasta-Est. Buen Retiro).

iii) Agreements with Communities

Of the 20 projects started, NCDS has not obtained signed agreements with 18 communities 1/ to provide voluntary labor for road construction and maintenance as required by the selection procedures approved by the USAID under condition precedent 3.02(r). We believe that the lack of agreements with communities has contributed to their failure to provide enough labor to the projects which has significantly delayed construction progress. SNC advised us that the Committee has overlooked this requirement in approving road projects. At the same time, we believe that the USAID has not adequately monitored compliance with this requirement because they have had a representative present at all meetings of the Committee and he did not object to the approval of projects for this reason.

We believe that SNC should not start any new projects until signed agreements are obtained from the communities and that SNC should obtain maintenance agreements for the 18 projects started without agreements to help ensure that communities will provide minor road maintenance after project completion.

Recommendation No. 3

USAID/Bolivia should require SNC to (1) not start any new road projects until they have been approved in accordance with established procedures (2) determine through established procedures the acceptability of the nine projects that have started without the documented approval of the Committee and (3) sign maintenance agreements with communities for the 18 projects that were started without agreements.

b. Implementation Plan

The implementation plan prepared for the project by SNC on February 17, 1977 is no longer realistic because of slippage in project implementation. On October 17, 1978, the USAID requested in Implementation Letter No.11 that SNC prepare and submit to the USAID a revised implementation plan. As of December 31, 1978, SNC had not complied with this request and the USAID had not followed-up with SNC to obtain the revised plan.

To ensure that actions required to carry out the project are taken in an effective and efficient manner and that the USAID has a realistic basis against which to monitor project progress, we believe a new implementation plan should be prepared.

1/ The communities have not signed agreements for the 20 projects listed in Appendix B except for Cr. Rt. 7-Tiraque and Senda III-Puerto Aurora.

Recommendation No. 4

USAID/Bolivia should obtain from SNC a revised implementation plan for the project.

c. Hand Tools

More hand tools have been purchased for the project than needed because less voluntary labor has been used in construction than planned. The purchase of unneeded tools reduces the rate of return that can be earned on loan funds invested in the project.

In January 1980, we found that of the 15,000 shovels, picks and wheel barrows received by SNC, only 3,800 units have been delivered to its District offices in Santa Cruz, Cochabamba, Chuquisaca and La Paz. Also, of the 900 units delivered to the District office in Santa Cruz, only 14 units were being used at the job sites:

We also found that similar conditions existed in Santa Cruz regarding the use of other types of hand tools purchased under the loan.

We discussed the low rate of utilization of hand tools with SNC and they believed that more tools were purchased than are needed by the project. They also estimated that the surplus tools purchased under project Rural Roads I should be enough to satisfy about 60 percent of the tool requirements under the Rural Roads II project (511-T-061).

An Invitation for Bids has been issued under the Rural Roads II project to purchase about the same quantity of tools as was purchased under the Rural Roads I project. Under these circumstances, we believe the USAID, in consultation with SNC, should reduce the quantity of tools to be purchased under Rural Roads II so the combined quantity of tools purchased under both projects are not in excess of needs.

Recommendation No. 5

USAID/Bolivia, in consultation with SNC, should reduce the quantity of tools to be purchased under the Rural Roads II project so the combined quantity of tools purchased under the Rural Roads I and II projects are not in excess of needs.

d. Explosives

SNC used some loan-financed explosives for non-project purposes because they did not have any explosives to satisfy the needs of their Sapecho project. The diversion of loan-financed commodities to non-project purposes reduces the amount of resources available for project activities, and is contrary to Section 4.06 of the Loan Agreement.

Based on orders given by the Deputy Director of SNC, the following loan-financed explosives valued at \$16,117 were diverted for use in the SNC Sapecho project in February 1979.

Dynamite	200 boxes
Fuses	39,345 feet
Detonator	20,000 pieces
Amonium Nitrate	500 bags

On January 24, 1980, the Director of RRD wrote the Deputy Director of SNC requesting the return of the explosives. On January 30, 1980, the Deputy Director responded saying that they were ready to return all of the explosives except 100 bags of amonium nitrate and 20,000 pieces of detonator.

Recommendation No. 6

USAID/Bolivia should require SNC to return to the project the explosives used for non-project purposes.

e. Project Records

SNC has not maintained project records as required by the Loan Agreement and Implementation Letters because of the lack of accounting personnel. SNC needs accurate, relevant and timely information on the financial and operational results of the project so they can improve its management.

i) Accounting Records

SNC has not maintained separate books and records to account for project transactions. The project transactions are recorded in the same accounts with non-project transactions. Also, SNC has not established separate subsidiary accounts for the AID and GOB contributions by project component.

We also found that while SNC has kept a separate account for USAID advances they did not have complete documentation to support the use of funds which has prevented the timely liquidation of the advances (see page 13).

We believe this is contrary to (1) Section 4.09 of the Loan Agreement which states "The Borrower shall...cause to be maintained, in accordance with sound accounting principles and practices consistently applied, books and records relating both to the Project and to this Agreement." and (2) Attachment J to Implementation Letter No. 1 which states "... the Borrower should establish subsidiary accounting records and supporting files for each project component."

In addition to the above, we believe SNC should open separate cost accounts for each road project to help management plan and control the cost of the projects.

ii) Property Management Records

Our visit to the project warehouse in La Paz disclosed that SNC had not prepaid property control cards for spare parts and other commodities received many months ago because they were still in the process of opening boxes of spare parts. We also found that many of the spare parts had been damaged and were not suitable for use.

Recommendation No. 7

USAID/Bolivia should require SNC to maintain adequate accounting and property management records for the project as stipulated in Section 4.09 of the loan agreement.

f. Cash Advances

SNC has not promptly liquidated cash advances used because of inadequate accounting records and controls. Also, the USAID has advanced funds to SNC in excess of its short-term (90 day) needs because the funds were not used as fast as planned. These conditions have reduced the purchasing power of unused funds because of inflation and could facilitate the use of AID loan funds for non project purposes.

From August 1978 through December 1979, the USAID advanced \$106,513 to SNC of which they have spent \$72,976, leaving an unused balance of \$33,537. Of the funds received by SNC, they have presented documentation acceptable to the USAID to liquidate \$9,404 of the advances, leaving an unliquidated balance of \$97,109 as detailed below:

<u>Date of Advance</u>	<u>Purpose</u>	<u>Unliquidated Advances</u>
8/31/78	Experimental Program	\$ 58,881.25
9/1/78	Procurement of Cement Pipe	35,083.41
11/9/78	Fabrica de Tubos PAM	<u>3,144.06</u>
	Total	<u>\$ 97,108.72</u>

On May 5, 1980, the USAID advised us during our Exit Conference that SNC had presented documentation to liquidate the advance of \$3,144.06 made on November 9, 1978.

Deficiencies found in SNC accounting records and controls were:

1) SNC had deposited the funds advances by the USAID in the same bank account with funds received from other sources. This is contrary to the provisions of Attachment J to Implementation Letter No. 1 which prohibits the commingling of AID and other funds. Commingling of the funds facilitates the use of AID funds for non-project purposes.

2) In June 1979, we found that SNC had improperly used \$57,409 of the funds advanced by AID to pay SNC salaries. In July 1979, SNC restored these funds to the AID account. It appears that AID funds were used for non-project purposes because of an accounting classification error.

3) SNC did not have records to support most of the expenses paid with the funds advanced by the USAID.

We also found that the USAID had not taken timely action to follow-up with SNC to obtain an accounting for the advances. Even though most of the funds were advanced in August and September 1978 the USAID did not formally follow-up with SNC until October 4, 1979. Since then the USAID has followed-up in December 1979 and March 1980. On February 11, 1980, the USAID advanced SNC \$60,060 for the improvement of workcamps and the purchase of drainage material although the earlier advances had not been liquidated. This advance was made

because SNC promised to promptly account for the old advances and because they badly needed funds to improve workcamps and purchase drainage materials. In making this advance, the USAID said it would not make anymore advances until the old advances were liquidated.

Recommendation No. 8

USAID/Bolivia should (1) obtain documentation from SNC to liquidate the outstanding advances as soon as possible (2) not make any new advances to SNC until the old advances are fully accounted for (3) require SNC to deposit AID funds in a separate bank account and (4) establish procedures to determine that any new advances are not in excess of short-term (90 day) needs.

g. Ineligible Costs

U.S. banks may have improperly paid \$6,996 of Bolivian consular fees under two letters of commitment issued to finance the procurement of commodities under AID loan 511-T-056 as shown below:

<u>Letter of Commitment No.</u>	<u>Supplier</u>	<u>Amount</u>
511-T-5604	Iowa Manufacturing Co.	\$ 1,554.50
511-T-5603	John Deere Intercontinental Ltd.	4,203.00
511-T-5603	John Deere Intercontinental Ltd.	735.00
511-T-5604	Le Torneau-Westinghouse Trade	503.50
		<u>\$ 6,996.00</u>

The above fees were shown in the commercial invoices which were supported by tax stamps issued by the Bolivian Consulate in the U.S. This indicates that the fees may have been paid by the U.S. banks. However, the payment documentation should be reviewed in the U.S. to determine conclusively whether the fees were paid.

Consular fees are not eligible for loan financing according to Section 4.05 of the AID Loan Agreement which states:

"To the extent that ... commodity procurement transactions financed hereunder, are not exempt from identifiable taxes, tariffs, duties, and other levels imposed under the laws in effect in Bolivia, Borrower shall pay or reimburse the same under Section 4.02 of this Agreement with funds other than those provided under the Loan."

To verify compliance with Section 4.05 of the loan, the USAID should ask AID/W to determine whether the above fees have been paid by the U.S., banks and, if so, issue a bill of collection to recover the ineligible costs.

The U.S. banks may have paid the above consular fees even though the costs were not eligible for reimbursement under the letters of commitment. Under this procedure, the USAID has no effective means to determine the propriety of payments because the USAID does not review the invoices paid by the banks. The USAID has recently started issuing direct letters of commitment to suppliers which will permit the USAID to better identify ineligible costs. Under the direct procedure, the USAID reviews and certifies invoices which AID pays directly to the suppliers. This procedure also speeds-up payments to the suppliers, avoids the need to issue letters of credit and saves commissions charged to AID by U.S. banks under the bank letter of commitment procedure. Because of the advantages of the direct letter of commitment procedure, we suggest the USAID expand its use to the extent that they have available staff time.

Recommendation No. 9

USAID/Bolivia should ask AID/W to determine whether the consular fees were paid under AID loan 511-T-056, and if so, issue a bill of collection to recover the ineligible costs.

h. Independent Audit

The audit of SNC's books and records performed by the Controller General of Bolivia for CY's 1977 and 1978 did not entirely comply with the scope requirements of Attachment C to Implementation Letter No. 1.

The audit report did not include comments on the following matters as required by Attachment C:

1) An evaluation of the management and internal controls afforded by the Borrower's accounting, financial and operating procedures and practices.

2) The borrower's compliance or noncompliance with covenants and warranties contained in the Loan Agreement.

3) The provisions of major contracts and agreements.

We believe that the scope of future audits should be expanded to include a review of the above matters since it will help the USAID to identify and correct problems more promptly.

During our Exit Conference on May 5, 1980, the USAID/Director said he recently talked to the Controller General of Bolivia about this problem as well as the need to do audits on a more timely basis. We suggest, however, that the USAID advise the Controller General in writing of the scope deficiencies disclosed by our review.

The USAID has established a reports control system which is managed by the USAID Controller. It is mainly used to determine whether the reports are submitted on a timely basis.

The USAID Controller is not able to comprehensively determine whether the monitoring reports received by the USAID comply with established content requirements because of staffing limitations. We suggest, therefore, that the principal burden for determining this be placed on project managers and that staff findings be reported to USAID management in the Monthly Project Status Reports.

Recommendation No. 10

USAID/Bolivia should (1) ask SNC to follow-up with the Controller General of Bolivia to obtain compliance with AID audit requirements and (2) require its staff to evaluate whether monitoring reports received comply with the content requirements established by the USAID and report their findings to USAID management in the Monthly Project Status Reports.

i. SNC Salaries

SNC has had difficulty in hiring and retaining the services of qualified professionals and skilled labor because SNC salary scales are too low. The lack of qualified professionals and skilled personnel adversely affects project progress.

One of the most serious problems SNC has had is hiring a sufficient number of qualified surveyors to assist in the design of the roads. As the salaries offered by SNC were too low, the USAID resolved the problem by allowing SNC to use loan funds to contract six surveyors.

We also found during our field trip to Santa Cruz in January 1980, that many of the project employees believed the SNC Resident Engineer was not adequately qualified to direct and supervise the work being done in the area.

Recommendation No. 11

USAID/Bolivia should encourage SNC to increase its salary scales for professionals and skilled labor to levels that will enable them to employ and retain qualified personnel.

j. GOB Contribution

The GOB has not complied with its financial commitments as required under Annex I of the loan because of its weak financial position. As shown below, the GOB has contributed only \$1,425,000 to the project through December 1979, which is only 54 percent of the amount required under the loan agreement.

Year	Status of GOB Contribution (\$000)				1/
	Amount Required by Loan	Amount Budgeted for Project	Amount GOB Released to SNC	Amount SNC Contributed to the Project	
1977	261	256	74	34	
1978	1,181	735	266	408	
1979	<u>1,183</u>	<u>981</u>	<u>814</u>	<u>983</u>	
	<u>2,625</u>	<u>1,973</u>	<u>1,154</u>	<u>1,425</u>	
1980	<u>1,285</u>	<u>1,801</u> 3/	<u>2/</u>	<u>2/</u>	

We do not believe the shortage in the GOB contribution has significantly affected project progress because less funds were needed than planned due to delays in project implementation. The project was delayed mainly for reasons other than SNC funding. The lack of funds, however, has contributed to delays in clearing commodities from customs, hiring personnel and obtaining spare parts.

We believe the USAID has adequately monitored the contribution of funds by the GOB and, therefore, make no recommendation.

3. Support of GOB Participating Institutions

Two GOB institutions (NCDS and MACA) have not supported the project as required by agreements signed with SNC because of the lack of sufficient GOB budgetary support and cooperation. As a result, project implementation has been delayed because of the lack of voluntary labor needed to build roads and the lack of timely data needed to prepare feasibility studies and select proposed road projects.

a. NCDS

NCDS has not supported the project as required by the NCDS/SNC agreement signed on February 10, 1977 because of a lack of funds to employ and support the needed staff. The lack of NCDS support has contributed to the lack of voluntary labor provided by communities which has significantly delayed the construction progress of many projects.

According to the NCDS/SNC agreement, NCDS was to:

- i) Assign a voting representative to the National Road Selection Committee.
- ii) Employ eight full-time promoters to:
 - (a) Assist in subproject site identification and selection.
 - (b) Organize the community road committee, which was to be the formal body representing the community during project construction.

1/ Includes SNC contribution for fuel, training and central office support not fully funded from the project budget.

2/ Data is not available yet.

3/ Converted to dollars at rate of exchange of 24,975 pesos to US\$1.00.

(c) Give promotional assistance to the recipient community to ensure that the required voluntary labor force is provided during the construction phase; and

(d) Maintain the community road committee so that it is capable of mobilizing the work groups needed to undertake minor road maintenance.

Our review of NCDS compliance with this agreement disclosed they had not fully complied with the provision to provide eight full-time promoters. Partly as a result of this, the communities have not provided sufficient labor which has adversely affected construction progress in 10 of the 20 projects started as of December 31, 1979.

From March 1977 through December 1979, NCDS has only provided 77.8 work-months of full-time promoter services which is far short of the 272 work-months we calculated were required by the SNC/NCDS agreement. On April 4, 1980, NCDS advised us that they do not have any promoters working in the Departments of Santa Cruz and Cochabamba, and that they have not received any reports on the work done by two of its regular employees who were assigned to the Department of Chuquisaca as full-time promoters in October 1978. NCDS has not provided effective promotion to the project because of the lack of funds to pay adequate salaries to attract and retain promoters and also to provide them with adequate support for transportation and travel.

Because of the crucial role played by NCDS promoters in the identification of projects and the mobilization of community labor, we believe it is important that the USAID correct the problem. As suggested by the USAID, this could include using loan funds to provide NCDS with sufficient resources to contract promoters and provide them with adequate logistic support. We also believe that NCDS should be required to report the progress made in improving the effectiveness of its promotional services.

Recommendation No. 12

USAID/Bolivia should (1) ensure that sufficient funds are provided to effectively promote the project and (2) require SNC to report on the progress made in achieving this objective.

b. MACA

MACA has not supported the project as required by an agreement it signed with SNC on February 10, 1977 because of a lack of cooperation by MACA staff. MACA participation in the project could help to improve the road project selection process.

According to the MACA/SNC agreement, MACA was to appoint a representative to be a member of the National Road Selection Committee (Committee). This representative was also to supervise extension agents who were to work part-time on the project in preparing agricultural reports needed for the selection of proposed road projects. Also, MACA was to provide the Economist of SNC with data needed to determine the economic viability of the projects.

We found that MACA has provided almost no assistance to the project. The MACA representative has only attended one of four meetings held by the Committee to select projects even though he received advance written notification of the meetings from SNC (see page 9). Also, MACA has not provided

any agricultural reports to SNC to help in project evaluation and selection which has shifted the burden of obtaining this data to SNC. The MACA representative told us he was not familiar with the provisions of the MACA/SNC agreement.

We believe the USAID should notify MACA of these performance deficiencies and obtain a commitment from MACA that they will support the project as required.

Recommendation No. 13

USAID/Bolivia should obtain a commitment from MACA that they will support the project as required by its agreement signed with SNC on February 10, 1977.

4. Technical Assistance

In general, the technical assistance provided to SNC could have been improved. There were a few deficiencies in the quality of services provided but more importantly the quantity of services provided was considerably less than planned. We believe that some of the problems of this project could have been avoided or corrected in a more timely manner if the technical assistance had been provided to SNC as planned.

As shown below, only 26.5 work-months of technical assistance were provided to SNC versus 56 work-months planned under the project as of December 31, 1979.

<u>Type of Advisor</u>	<u>Period of Contract</u>	<u>Work-months of Technical Assistance as of 12/31/79</u>		<u>Source of Financing</u>
		<u>Planned</u>	<u>Actual</u>	
General	11/1/77 to 10/9/78	26	11.5	Loan 056
Equipment	10/1/78 to 12/31/80	<u>30</u>	<u>15.0</u>	Loan 056
	Total	<u>56</u>	<u>26.5</u>	

We do not believe the reduction in the quantity of services to be provided by the Equipment Advisor has had a significant adverse effect because construction did not start until September 1978 and the advisor arrived in October 1978 and is still on board.

However, the quality and quantity of services provided by the General Advisor has hurt the project. The General Advisor was contracted for a two-year period beginning November 1, 1977 under AID loan 511-T-056. However, the contract was terminated after almost one year because he could not get along with his counterpart (Chief of the RRD) and his performance was not satisfactory. The contractual duties of the General Advisor were to advise SNC for the:

- a. Planning and implementation of all project activities.
- b. Development and implementation of evaluation activities.

c. Coordination of activities between the central and regional offices and identification of problems and formulation of recommended solutions.

d. Contemplation of necessary measures for the continuation of activities after project completion.

e. Planning and evaluation of the experimental program.

f. Coordination with the USAID.

According to the Chief of the Rural Roads Department of SNC, the advisor only provided assistance to the experimental program and such assistance was not satisfactory.

The project has not had a General Advisor since October 1978 because SNC did not want to use loan funds to pay for the services of the advisor. Thus, the USAID decided to wait and contract the services of a General Advisor with grant funds provided under the Rural Access Roads II project. A contractor was selected in April 1980 to provide the services of a General Advisor and a Training Advisor. As the USAID has acted to contract the technical assistance needed for the project, we make no recommendation.

5. USAID Field Trip Reports

At the time of our review the USAID did not have any written procedures specifying when field trip reports should be prepared. During CY 1979, USAID engineers took 14 field trips to project areas but only prepared reports for 5 of these trips. We believe that field trip reports should be prepared when significant problems of a continuing nature are identified to serve as a basis for correcting and following-up on the problems and for informing other USAID officials of the findings.

Based on a recommendation in our draft audit report, the USAID issued a Local Notice on April 30, 1980, which established written procedures for the preparation and exchange of field trip reports. We have, therefore, withdrawn the recommendation.

B. Rural Access Roads II Project

The project is in its early stages of implementation but is already about one year behind schedule. The loan/grant agreement was signed on August 30, 1978. Bids for the purchase of equipment and other commodities were not published until February 11, 1980 versus a target date of March 15, 1979 estimated in the project implementation plan prepared by SNC. This delay was mainly caused because the USAID deliberately held up the publication of bids until they were reasonably assured that SNC would begin the construction of workshops needed for equipment maintenance. SNC did not promptly prepare plans and schedules for workshop construction; also, the GOB did not provide its contribution (\$200,000) to finance the construction of the workshops until February 1980 because of political problems at the end of 1979. In April 1980, a contractor was selected to provide technical assistance to SNC. The USAID estimates that the construction of roads can begin under the project by the end of 1980 when the equipment arrives.

APPENDIX A

ESTIMATED PROJECT COSTS FOR RURAL ACCESS ROADS I AND II AS OF 12/31/79
(IN THOUSANDS OF DOLLARS)

	<u>Total</u>	<u>Construction Equipment and Spare Parts</u>	<u>Hand Tools</u>	<u>Construction Materials</u>	<u>Contracts for Construction of Small Structures</u>	<u>Maintenance Equipment</u>	<u>Technical Assistance</u>	<u>Other</u>	<u>Contin- gencies</u>	<u>Operating Expenses</u>
<u>Rural Access Roads I</u>										
AID Loan 511-T-056	8,500	5,800	150	1,850	290	-	200	210 <u>1/</u>	-	-
SNC	3,910	-	-	-	-	-	-	-	-	3,910 <u>2/</u>
NCDS	40	-	-	-	-	-	-	-	-	40
MACA	20	-	-	-	-	-	-	-	-	20
Communities	<u>3,100</u>	-	-	-	-	-	-	<u>100</u> <u>3/</u>	-	<u>3,000</u> <u>6/</u>
Total	<u>15,570</u>	<u>5,800</u>	<u>150</u>	<u>1,850</u>	<u>290</u>	-	<u>200</u>	<u>310</u>	-	<u>6,970</u>
<u>Rural Access Roads II</u>										
AID Loan 511-T-061	13,000	6,700	280	1,470	900	1,030	-	770 <u>5/</u>	1,850	-
AID Grant 511-0466	300	-	-	-	-	-	275	-	25	-
SNC	4,130	-	-	-	-	-	-	-	375	3,755 <u>4/</u>
DDC's	3,280	-	-	-	-	-	-	-	515	2,765 <u>8/</u>
Communities	<u>2,390</u>	-	-	-	-	-	-	<u>220</u> <u>7/</u>	-	<u>2,170</u> <u>6/</u>
Total	<u>23,100</u>	<u>6,700</u>	<u>280</u>	<u>1,470</u>	<u>900</u>	<u>1,030</u>	<u>275</u>	<u>990</u>	<u>2,765</u>	<u>8,690</u>
Grand Total	<u>38,670</u>	<u>12,500</u>	<u>430</u>	<u>3,320</u>	<u>1,190</u>	<u>1,030</u>	<u>475</u>	<u>1,300</u>	<u>2,765</u>	<u>15,660</u>

1/ Consists of \$10,000 for training and \$200,000 for experimental program.

2/ Includes \$30,000 for training and \$320,000 for materials.

3/ Estimated value of community right-aways.

4/ Includes \$230,000 for improvement of maintenance facilities and offices, \$60,000 for training and \$330,000 for materials.

5/ Consists of \$300,000 for training, \$225,000 for vehicles, \$35,000 for surveying instruments, \$80,000 for radios and \$100,000 for evaluations.

6/ Estimated value of voluntary labor to be provided by communities.

7/ Consists of \$120,000 for community labor for maintenance costs and \$100,000 for community right-aways.

8/ Includes \$2,590,000 to be provided by the DDC's to SNC for operating expenses.

ANALYSIS OF 20 ROAD PROJECTS
STARTED AS OF 12/31/79

<u>Department/Project</u>	<u>No. of Kilometers</u>	<u>Percent of Work Completed</u>	<u>Equivalent Kilometers Completed</u>	<u>Planned Start Date</u>	<u>Start</u>	<u>Completed</u>	<u>Planned</u>	<u>Actual</u>	<u>Estimated to Complete</u>	<u>2/</u>
<u>Department of La Paz</u>										
Carrasco-Fernandez	20.0	85%	17.0	3/78	1/79	-	6.0	12.0	14.1	
San Pedro-Mejillones	18.0	85%	15.3	3/78	9/78	-	6.0	15.5	18.2	
Mejillones-Uyunense	23.0	90%	20.7	3/78	9/78	-	6.0	15.5	17.2	
Uyunense-Broncenti	21.0	65%	13.6	1/79	9/79	-	4.0	3.5	5.3	
San Lorenzo-Mejillones	20.0	25%	5.0	1/79	9/79	-	4.0	3.5	14.0	
<u>Department of Chuquisaca</u>										
Quepupampa-Rodeo	9.5	100%	9.5	3/78	10/78	9/79	7.0	11.0	11.0	
Rodeo-Casa Grande	20.3	97%	19.7	3/78	1/79	-	7.0	12.0	12.4	
Casa Grande-Redencion	18.8	87%	16.4	3/78	8/79	-	7.0	4.0	4.5	
Tarabuco-Colchaspampa	15.4	25%	3.8	3/78	11/79	-	7.0	2.0	8.0	
<u>Department of Cochabamba</u>										
Cr. Rt. 7 - Tiraque	15.0	100%	15.0	3/78	1/79	3/79	7.0	2.0	2.0	
Cr. Rt. (Km. 71) - Corani	12.0	80%	9.6	3/78	9/78	-	4.0	15.0	18.7	
Corani-Tablero	16.1	60%	9.7	3/78	9/78	-	4.0	15.0	25.0	
Senda III-Puerto Aurora	20.0	60%	12.0	3/78	10/79	-	4.0	3.0	5.0	
Ivirgarzama-Valle Hermoso	19.0	90%	17.1	3/78	4/79	-	4.0	8.0	8.8	
Punata-Pacpani	13.0	20%	2.6	-	11/79	-	-	1.5	7.5	
<u>Department of Santa Cruz</u>										
Villa Bush - Km. 20	20.0	45%	9.0	3/78	10/78	-	7.0	14.5	32.2	
Buena Vista-Colonia Huaytu	18.5	95%	17.6	3/78	12/78	-	7.0	12.5	12.1	
San Carlos-Buen Retiro	13.0	80%	10.4	3/78	5/79	-	7.0	7.5	9.3	
Buen Retiro-Antofagasta	16.0	75%	12.0	3/78	10/79	-	7.0	3.0	4.0	
Antofagasta-Est. Buen Retiro	9.0	10%	.9	3/78	12/79	-	7.0	1.0	10.0	
Totals	<u>337.6</u>		<u>236.9</u>				<u>5.9</u>	<u>3/</u>	<u>12.0</u>	

1/ Percent of work completed times number of kilometers planned.

2/ Elapsed time divided by percent of work completed.

3/ Average.

PLANNED AND ACTUAL COST PER KILOMETER OF ROADS

	<u>Planned</u> <u>(Life of Project)</u>	<u>Actual</u> <u>As of 12/31/79</u>
A. <u>Costs</u>		
1) AID Loan		
- Depreciation for Equipment and Spare Parts	\$ 2,053,780 <u>1/</u>	\$ 773,314 <u>3/</u>
- Other Costs	2,700,000 <u>2/</u>	521,000 <u>4/</u>
2) Community Contribution	3,100,000	611,971 <u>5/</u>
3) MACA Contribution	20,000	-
4) NCDS Contribution	40,000	-
5) SNC Contribution	<u>3,910,000</u>	<u>1,425,000</u> <u>6/</u>
Total Costs	<u>\$11,823,780</u>	<u>\$3,331,285</u>
B. <u>Number of Kilometers</u>	<u>1,200</u>	<u>236.9</u>
C. <u>Cost Per Kilometer</u>	<u>\$ 9,853</u>	<u>\$ 14,062</u>

-
- 1/ Estimated cost of equipment and spare parts (\$5,800,000) x planned months of use (34) ÷ estimated life in months (96).
 - 2/ Amount of loan \$8,500,000 - Cost of Equipment and Spare Parts (\$5,800,000).
 - 3/ Estimated cost of equipment and spare parts (\$5,800,000) x actual months of use as of 12/31/79 (16) ÷ estimated life in months (120).
 - 4/ Actual loan disbursements for other costs as of 12/31/79.
 - 5/ Estimated value of community contribution (\$3,100,000 x 236.9 kilometers completed as of 12/31/79 ÷ planned kilometers to be built (1,200)).
 - 6/ Actual SNC contribution as of 12/31/79.

LIST OF REPORT RECOMMENDATIONS

Recommendation No. 1

USAID/Bolivia should require SNC to develop a work plan and ensure that adequate staff is provided to prepare a sufficient number of feasibility studies for proposed road projects. (Page 6.)

Recommendation No. 2

USAID/Bolivia should (1) review the progress of the experimental program with SNC to determine whether the program has been carried out in accordance with the procedures established in the program plan and (2) require SNC to correct any problems identified. (Page 7.)

Recommendation No. 3

USAID/Bolivia should require SNC to (1) not start any new road projects until they have been approved in accordance with established procedures (2) determine through established procedures the acceptability of the nine projects that have started without the documented approval of the Committee and (3) sign maintenance agreements with communities for the 18 projects that were started without agreements. (Page 10.)

Recommendation No. 4

USAID/Bolivia should obtain from SNC a revised implementation plan for the project. (Page 11.)

Recommendation No. 5

USAID/Bolivia in consultation with SNC, should reduce the quantity of tools to be purchased under the Rural Roads II project so the combined quantity of tools purchased under the Rural Roads I and II projects are not in excess of needs. (Page 11.)

Recommendation No. 6

USAID/Bolivia should require SNC to return to the project the explosives used for non-project purposes. (Page 12.)

Recommendation No. 7

USAID/Bolivia should require SNC to maintain adequate accounting and property management records for the project as stipulated in Section 4.09 of the loan agreement. (Page 13.)

Recommendation No. 8

USAID/Bolivia should (1) obtain documentation from SNC to liquidate the outstanding advances as soon as possible (2) not make any new advances to SNC until the old advances are fully accounted for (3) require SNC to deposit AID funds in a separate bank account and (4) establish procedures to determine that any new advances are not in excess of short-term (90 day) needs. (Page 14.)

Recommendation No. 9

USAID/Bolivia should ask AID/W to determine whether the consular fees were paid under AID loan 511-T-056, and if so, issue a bill of collection to recover the ineligible costs. (Page 15.)

Recommendation No. 10

USAID/Bolivia should ask AID/W to determine whether the consular fees were paid under AID loan 511-T-056, and if so, issue a bill of collection to recover the ineligible costs. (Page 16.)

Recommendation No. 11

USAID/Bolivia should (1) ask SNC to follow-up with the Controller General of Bolivia to obtain compliance with AID audit requirements and (2) require its staff to evaluate whether monitoring reports received comply with the content requirements established by the USAID and report their findings to USAID management in the Monthly Project Status Reports. (Page 16.)

Recommendation No. 12

USAID/Bolivia should (1) ensure that sufficient funds are provided to effectively promote the project and (2) require SNC to report on the progress made in achieving this objective. (Page 18.)

Recommendation No. 13

USAID/Bolivia should obtain a commitment from MACA that they will support the project as required by its agreement signed with SNC on February 10, 1977. (Page 19.)

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