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EVALUATION OF PL-480 TITLE III ACTIVITIES
in NATURAL RESOURCES MANAGEMENT and ENVIRONMENT

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I. EXECUTIVE SUMMARY

1991 finds USAID/Bolivia, with the support of the Bolivian government, placing more emphasis than ever before on environmental issues. The portion of the PL-480 Title III program dedicated to natural resources and the environment will be increased from 6% in 1990-91 to 18% in 1992-4, representing an increase of \$2.4 million annually. To give USAID/B a better handle on the current status of the NR/E projects under the Title III program, an independent consultant was contracted to evaluate the activities undertaken between 1985 and the present.

The PL-480 programs in Bolivia have been administered by a para-governmental agency called the Executive Secretariat. The ES has administered more than \$120 million in Title III funds, and more than \$15 million in 36 NR/E projects since 1985, becoming arguably the most active national-based environmental force in Bolivia.

This document is based on a comprehensive review of those 36 projects. Information was collected from project files; from review of technical documents; from interviews with USAID, the Executive Secretariat (commonly known as PL-480), NGO and GO project personnel, and project participants; and from site visits.

Nearly all of the projects were found to have proceeded satisfactorially, completing the activities established by the letters of agreement. There were some star projects, and there are some very interesting new projects being started.

The NR/E projects were at their best when PL-480 integrated various project activities into a series of complementing interventions. For example, the ES has worked on the development of three new Environmental Laws (one was rejected by Congress), sponsored a proposal to create a national system of protected areas, and has recently begun work on the National Environmental Action Plan.

USAID/B set general activity guidelines for the ES in the Title III agreements signed by both institutions. The ES evaluated proposals received from potential implementors, and selected the best for financing. The tasks of problem analysis and solution development were delegated to the participating NGO's and GO's. Projects were implemented individually, or occasionally in groups.

No success indicators were pre-established at a programming level, hence an evaluation of the program is prone to a certain subjectivity. The undeniable positive impact which resulted from the projects owes more to talent and hard work than to problem analysis and strategy development. Thus, the principal

recommendation of this evaluation is the need for the Executive Secretariat to increase its role from an administrator of projects to a programmer of projects which follow a clearly defined strategies to meet measurable goals.

The Executive Secretariat, with USAID assistance, has previously achieved tremendous improvements in its administrative abilities. It is now time to concentrate on improving programming.

Natural resources-based problems are difficult to solve. Natural resources are usually taken for granted by the land user until it is too late. Sometimes problems are rooted in conflicts between different forms of land use. Many involve foregoing short-term benefits for long-term indirect benefits.

Because of the difficulty in solving natural resource problems, they need to be attacked with a variety of activities, usually at a variety of levels. The ES needs to improve the vertical and horizontal integration of its projects.

The ES should determine priorities based an environmental analysis (and along the programming lines established by USAID/B, at least until the National Environmental Action Plan is put into place). Goals should be set which resolve the prioritized problems, and a strategy should be determined which indicates how the goals will be attained. The ES should develop success indicators to provide the criteria by which success can be measured, and design a systematic monitoring system around those indicators. Through this vertical integration, a multi-year program can be set up into which a series of projects can be plugged.

There was minimal evidence of horizontal inter-project integration within the ES. Natural resources plays only a partial role in development. To assure social and economic change, development projects should be planned such that natural resources improvements can complement other projects such as improved agricultural production, agricultural credit, and rural infrastructure.

The Executive Secretariat will be wise to remember that natural resources provide the foundation upon which land-use-based development occurs. Agricultural development projects which are built upon an unstable natural resource base will eventually fail.

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III. BACKGROUND

USAID/Bolivia currently assists the Government of Bolivia to import about \$20.0 million/year of wheat which is sold locally to millers. The proceeds from this sale are jointly programmed by USAID and the GOB for purposes of rural development and policy change. Actual administration of the program is carried out by the Executive Secretariat, whose portfolio covers a broad range of activities and programs from maternal and child health to rural infrastructure. Included in this portfolio are natural resources management and environmental programs totalling more than US\$ 15 million. The financing for the ES's programs comes from annual Title III agreements or amendments. The 1986 Title III agreement was amended three times, and therefore covers four years. The 1990 Title III agreement is a single-year agreement.

1991 finds USAID/Bolivia, with the support of the Bolivian government, placing more emphasis than ever before on environmental issues. The portion of the PL-480 Title III program dedicated to natural resources and the environment will be increased from 6% in 1990-91 to 18% in 1992-4, representing an increase of \$2.4 million annually. To give USAID/B a better handle on the current status of the NR/E projects under the Title III program, an independent consultant was contracted to evaluate the activities undertaken between 1985 and the present.

A. EVALUATION METHODOLOGY

The scope of work for this evaluation is found in Appendix 1. The purpose of the technical service is to evaluate the ES's supervision of natural resource management and environmental projects under Title III funding. It is not the purpose to provide a general picture of environmental problems in Bolivia.

The evaluator developed a list of all the NR/E projects administered by PL-480 Title III funds between 1985 and 1991. A list of criteria was developed and reviewed with USAID/Bolivia. A series of field visits were made according to the schedule presented in Appendix 2. Interviews were held with a number of persons participating in PL-480 NR/E projects. A list of those contacts appears in Appendix 3. Additional sources of information included project files, quarterly and annual reports, documents produced, and media productions.

For each project a summary was prepared from the information available, and a review of its achievements was made based on the criteria established. The conclusions and recommendations of this document represent the analysis of the PL-480 NR/E projects in their entirety.

B. LIMITS TO THE EVALUATION

The four week period allotted for the evaluation was probably appropriate to collect and evaluate information at the level described by the Scope of Work. Even so, there are literally thousands of pages of documents produced by the various projects. In reviewing documents, some details may have been overlooked. The LIDEMA file, for example, consists of nine folders full of letters and memos, making it difficult to keep track of important issues and the various PL-480/LIDEMA agreements.

The conclusions and recommendations in this document, however, are based on a series of observations, trends, or patterns noted in the field or gathered from different sources. Hence, the conclusions and recommendations are more general and are valid.

Although activity goals were set by each project, the lack of clearly defined programming objectives by PL-480 in NR/E activities limits the objectivity which can be applied to this evaluation. It is unclear just exactly what changes the PL-480 program set out to effect.

The PL-480 ES has fairly complete files covering project agreements, amounts, and disbursement since 1987. However there is no systematic method of collecting monitoring information. The appropriate measurement information, based on pre-established criteria, is not always available. To give some examples, numbers of participants and distribution of materials is not always recorded by PL-480 for training events. For reforestation projects, the number of seedling grown is generally recorded but not the number of seedling planted, which is more important for evaluation purposes. Such inconsistencies made the analysis of the program more problematic, and created holes in the informational criteria.

Project records from pre-1987 are unclear and appear to be incomplete.

The inability to return to interview field staff after having departed the area limits the ability to clarify points which in retrospect had become confusing. Field trips resulted in a "snapshot" of a small sample of participants or communities, so the variability within projects may be underappreciated.

The impacts of training and promotional events are more difficult to measure when participants have scattered to the four winds. With rare exceptions, evaluations upon the completion of a training event were not conducted.

The general manager of DESEC was out of town when the visit was made to Cochabamba. The persons interviewed were assigned to technical functions, so the details of funding, communications etc. between DESEC and ES PL-480 were not analyzed in detail.

IV. GENERAL DESCRIPTION and IMPACT of ES ACTIVITIES UNDER THE 1986-9 AND 1990 TITLE III AGREEMENTS

A. PROJECT ADMINISTRATION VS. PROGRAMMING

The functions currently performed by the PL-480 are: proposal evaluation, definition of terms of agreement, funding disbursement and administration, and field visits (or the equivalent) to confirm that the terms of the agreement are being respected.

It was not the purpose of this evaluation to evaluate funding administration, but it is worth mentioning that PL-480 appears to keep very good track of all funding which it is their responsibility to monitor. Records are organized, accessible and up-to-date, frequent audits are performed, and terms of agreement include meticulous details of the funding process.

Every agreement entered upon by PL-480 and a participating institution becomes a PL-480 "project". This includes a wide selection of activities from television series to workshops to organizational strengthening grants to extension programs. Sometimes PL-480 "projects" such as factibility studies or population censuses are actually pieces of larger and more definite projects.

Many of the NR/E projects reviewed, especially technical documents and training events are quite distinct from each other. While individually each project has a merit, the impact of each is not reinforced by other complementary efforts.

When NR/E projects which are related to one another are usually followups upon previous efforts, i.e. the relation is a time relation, not a complementary space relation. Some new projects are simple rollovers of previous agreements. Some of the best efforts of NR/E programs have come as a result of a series of projects, for example, the various environmental laws and other interventions on a national scale, or the LIDEMA program.

There is very little coordination between NR/E projects and other rural development projects, the only examples found being environmental impact studies for bridge projects. Intra-project coordination is practiced by PL-480 technical specialists. For example, a civil engineer participated in the supervision of a camp construction in the Noel Kempf National Park, even though this was classified as a natural resources project.

B. PRIORITIZATION

The Executive Secretariat admittedly has trouble

prioritizing projects. More project requests are received than can be funded, so only some of the projects can be funded.

All project proposals with an NR/E focus are reviewed first by the technical specialist. At times the proposal is simply returned with comments. Sometimes a field visit is made to evaluate the project on-site. A four-person technical committee consisting of the Executive Secretary, the Technical Director, the Administrator, and the Technical Specialist makes the final decision to finance a project.

The Technical Specialist assigned to NR/E indicates that project acceptance was based on the quality of the proposal. There is obviously some priority given to continuation with institutions that have experience with PL-480 and demonstrated capability in project management, such as with the SOMOS television series, the Beni Biological Station, or the PERTT watershed management project.

There is minimal project soliciting done by PL-480. They indicate that the proportion of funds which are non-counterpart (and thus under PL-480 management) are not enough to support integrated planning.

There are several problems that emanate from a passive approach to project selection. Project selection for participating NGO's and GO's is a crapshoot; they have no programmatic guidelines to follow in the development of proposals. This is very inefficient. The preparation of proposals demands the time of qualified personnel. Neither NGO's nor GO's want to spend resources frivolously in the development of proposals without some indication of interest by the donor.

For example, FAN (the Fundacion de Amigos de la Naturaleza) in Santa Cruz has presented project proposals to PL-480 with frustrating results. An example of a PL-480 response is presented in Appendix 4. There is a series of detailed technical suggestions (note that they have asked that FAN indicate something so detailed as the type of impression to be used for the final report!), yet the PL-480 response to the proposals is not communicated. There is no indication as to whether the proposals or the concepts included therein will be considered or not, and whether they indeed are viable or not within the programming guidelines and budgetary limitations of the PL-480.

Another problem is that a program may produce good individual projects, but not achieve overall goals. The PL-480 ES does not have a program made up of a portfolio of projects grouped around the achievement of a change in basic condition of an intended beneficiary. They have a series of loosely associated fill-in activities or interventions which provide immediate assistance to a need but do not assure a substantial impact toward a developmental goal.

Some of the training and educational projects fall into this category. For example, while a very professional listing of natural resources in La Paz was published with PL-480 funds, what is the established link between this and development? What development personnel are using this document?

A further problem is that areas with great environmental needs may not receive attention because that region does not submit any proposals. There are no NR/E projects in the altiplano, although that population is dependent upon natural resources for its way of life, the population segment is the poorest in the country, and natural resources problems contribute to the poor living conditions of that population.

The reason for not developing programming priorities, according to one NGO interviewed, was that the PL-480 ES did not want NGO's designing projects specifically around those priorities in order to get funding.

B. PROBLEM ANALYSIS

A basic shortfall of PL-480 in the management of the NR/E program is in the lack of problem analysis. The NR/E program has nothing to guide it outside of USAID/B guidelines. PL-480 is very proud of its claim of making the largest national contribution to NR/E activities in Bolivia. This claim carries with it a definite responsibility to the nation to identify environmental problems and their causes. When the problem analysis is done well, the development of solutions is much simpler and more successful.

Inadequate analysis of the land use problem has resulted in a lack of vision for the remainder of the management activities.

PL-480 faces a jumble of problems which need to be resolved, and its answer is to administer projects with themes that address individual problems. Established goals are numerous and very general, and accompanied by very specific activity goals. Programming strategies have not been developed.

The PERTT project is a classic example of deficient problem analysis. PERTT did buy a pickup truck, nursery supplies, barbed wire, etc., and thus completed the terms of the agreement with PL-480. However, development in Tarija is dependent on changes in land use practices. This is the final goal that should have been established with PL-480 in the PERTT project.

The lack of vision carries over onto the projects. The problem statement of individual projects is commonly one or two paragraphs. Project strategies which resolve land use problems are not obvious.

C. PLANNING

1. Internal

PL-480 did not prepare annual operating plans until this year. The reason given was that previous to 1990, the funding mechanism with USAID did not guarantee that resources would arrive on time, and so they did not want to make a plan which could not be followed.

The current plan was developed after holding an internal seminar to consider diverse factors, such as USAID's and the GOB's Development Strategies, which affect the implementation of the PL480 program. The plan lays out eight objectives. None of the objectives are very specific, some are actually constraints, strategies, or activities. For example, one of the objectives is "Design of integrated agricultural projects as a way of concentrating forces in few projects of significant impact in rural development".

Section III of the Annual Plan lays out a series of indicators for each program. PL-480 admittedly has trouble grasping the concept of indicators for natural resources (i.e., other program indicators such as credit are defined much more clearly). The indicators of the environmental programs are:

1) Preservation of renewable natural resources

The preservation of renewable natural resources for future analysis, scientific field research, and as a component of the tourism industry will be pursued.

2) Conservation of renewable natural resources

Relates to the implementation of improved management and rational use of renewable natural resources, in order to achieve eco-system balance.

3) Environmental Impact

Relates to different studies of environmental impact with the goal of preserving, conserving, and maintaining the balance of the bio-geo-diversity of the ecosystems, and braking environmental deterioration which, through environmental education will elevate the sustained use of renewable resources and land productivity."

Besides a difficulty in conceptualizing indicators in natural resources, the preceding demonstrates a lack of vision of exactly what they want to do with the NR/E program. These buzzwords and general concepts form a weak structure for their plan. Just about any type of project would fall under these categories. There are no numbers fortifying the objectives. There is no mention of target populations.

The indicators are followed by a list of projects by funding

source. There are neither supervision, monitoring, nor evaluation plans. The program budget is presented in detail.

PL-480 has been able to delegate planning at the project level successfully, as evidenced by a general completion of project activities. PL-480 is fairly demanding of planning for the implementing institutions; there is evidence of several proposals that were rejected for poor planning to be later revised and completed. For example, PL-480 rejected a 1989-90 action plan for LIDEMA, who later came back with a five-year management plan in 1990.

2. Project Setup

Several NGO's complained that PL-480 "looks for ways to make things complicated", especially with regards to setting up agreements. Project files demonstrate that PL-480 sometimes repeatedly returns corrected proposals with comments. Time passes and the NGO's become frustrated and begin to look elsewhere for donors.

3. Letters of Understanding

A Letter of Understanding to formalize the relation between PL-480 and the implementing institutions is always signed before initiating work on a PL-480 funded project. The LOU's all follow a format similar to the one presented in Appendix 5.

Letters of Understanding were reviewed which indicated neither an activities plan against which the terms of agreement can be measured, nor time limits for the completion of the project. The most recent LOU's give clear indications of activities and time periods expected of implementing institutions.

D. ACTIVITIES

A summary sheet of all the Title III projects administered by the Executive Secretariat from 1985 to the present is presented in Appendix 6. Short project descriptions are found in Appendix 7. A summary of disbursements by agreement to date is presented in Appendix 8.

1. Institutional Support

Highlights

- 21 Institutions receiving operational, strengthening, or technical support.
- 2 Management Plans produced
- 1 Park infrastructure built (3 buildings)

2. Education, Training, Promotion

Highlights

- 18 Workshops/seminars/courses w/535 participants
- 24 Scholarships awarded
- 60 Educational programs produced for television, radio, or video.

3. Technical Studies

Highlights

- 17 Environmental documents produced
- 3 Project support studies completed
- 2 Legal documents submitted to government

4. Extension

+-----+
| Highlights |
+-----+

1854 Ha. reforested

80 Ha. soil conserved

5,368,000 tree seedlings produced

Participation of 3886 families in
221 communities

+-----+

E. SUPERVISION

1. Internal

The technical personnel of the PL-480 assigned to supervise the projects tend to be selected based on technical qualifications. The agricultural specialist previously worked as a farmer, and the NR/E specialist is a biologist who previously worked on the Amboro NP with SEGMA/BID. A more logical career path for PL-480 specialists would be "graduates" of NGO's with experience in project development.

The NR/E Technical Specialist reports to the Technical Director. The Technical Director has eight Specialists under his supervision, all except for the Agricultural Credit Specialist, who for some reason reports to someone higher up.

2. Site Visits

A technical specialist is in charge of project supervision for the ES. Supervision is accomplished by field trips to visit projects, and attendance at events when possible. The technical specialist visits the field whenever reports indicate that the project is not proceeding as planned.

The technical specialist prepares a pre-trip report stating the trip's objectives, and a post-trip report upon his or her return. The post-trip report is reviewed by the Technical Director and the Executive Secretary. Sometimes participating

institutions are sent the conclusions of the Trip Reports.

The trip reports vary by the person who prepared them. Most of the NR/E reports on file at PL-480, prepared by someone who is no longer with PL-480 are very detailed, but concentrate on the activity level, sometimes not investigating adequately the causes behind the problems encountered.

Supervision within projects varies by project and institution. It is not part of the project plan.

F. MONITORING

The ES submits quarterly reports to USAID/Bolivia. They are generally submitted within six weeks of the end of the quarter. The quarterly reports follow a standard format for all programs, which consists of project narratives by line item (program type), and a financial review. As in the supervisory reports, the problem analysis is rather superficial. It is not obvious how well the various projects are marching towards their stated goals.

The Environmental Section of the quarterly report gives a narrative rundown of various activities, accompanied by some data. The data presented is inconsistent. For example, narratives for some training events are accompanied by information on number of participants, and others no. It is not clear when a project begins or ends, or whether each project is addressed in the narrative. The level of progress toward activity goals versus what was planned is not obvious. There is not even a standardized time period for those reports.

To give some examples, in the April-June 91 Report, the DESEC project reported seedling production of 367,207. Was this greater than planned, less than planned, about right or what? The period covered by DESEC reports varies as follows:

Previous to April 1989-	4 month periods
May to November 1989-	6 month period
December 1989 to April 90-	5 month period
May 90 to March 91-	11 month period
April to June 91-	3 month period

USAID indicated that up to now, the quarterly reports meet their reporting needs. They plan on increasing the level of detail required under the reporting requirements of the new PL-480 legislation.

G. EVALUATION

PL-480 does not always effect in-depth project evaluations after the completion of project agreements. Final payment to implementors is made after the terms of the LOU are completed to the satisfaction of PL-480.

V. PROJECT ACTIVITIES SELECTED FOR INTENSIVE EVALUATION

A. BENI BIOLOGICAL STATION (EBB)

The EBB was established in 1983 by the Government of Bolivia, but nothing much happened until Conservation International and the GOB signed a debt exchange agreement. Its aim is to conserve sufficient habitat to study the fauna of the mixed savannah-forest ecosystem of the Beni department. In 1986, the EBB was named a International Biosphere Reserve.

The PL-480 program has worked with the EBB since its startup in 1987 with three different types of financing mechanisms. There is an operating fund based on the interest on a \$150,000 deposit from the Title III program (plus 100,000 funds from the GOB) in the Bank of La Paz (since changed to BHN Multibanco). This deposit generates approximately \$28,800 per year which is used currently to pay for salaries of EBB personnel.

The PL-480 has directly funded activities with EBB, along with The Nature Conservancy and Conservation International. PL-480 has 76% of the cost for the preparation of the EBB management plan (total cost \$80,450). This plan was initiated in January, 1988, and a final copy was recently sent to publishing.

The EBB has also been used as a the scene for a variety of workshops and courses funded by PL-480 and others. Some example of courses held there include an ecology course for university students, a park protection workshop for natives put on by Peace Corps volunteers, BIOLAT (Man and the Biosphere) workshops done with the support of the Smithsonian Institute. Approximately 200 persons received training in eight courses over the last year.

1. Management Plan

The objectives of the EBB management plan are the protection and conservation of biota and natural processes, investigation, environmental education and training, resource use, development, and regional projection. To do this the EBB in its management plan has designed a series of seven programs, each program with one or two sub-programs and various objectives. The program objectives as stated in the management plan are quite general, hence of doubtful application in the field. For example, one objective of the protection sub-program is "to guarantee the protection of the natural resources and the area of the EBB and the strict vigilance of its limits."

The typical problem with management plans is that they too often become an exercise which is so tedious that it is forgotten by all but the author once it is approved and in place. The EBB MP gives a general idea of the structure of things to come, but its strategies are too conceptual to unite field and office teams

around those objectives and the accompanying activities. It is not obvious exactly what the EBB will be like in X years. While the MP forms an excellent source of reference information about the Beni and the EBB, the 564 page document (plus Appendices) needs to be simpler and more user-friendly.

There are other shortfalls. The target beneficiaries are not clearly identified; there are no time limits established. There is no plan for supervision or evaluation. A resource monitoring program has been designed, but it has not been built in to the intermediate goals. There is no activity monitoring design. File notes indicate that field station personnel felt left out of the planning process.

EBB staff indicate that their most pressing problems are protection and financing. During the two and a half year period which has been necessary for the elaboration of the MP, the EBB team has pieced together activities based on this pragmatic needs assessment. This strategy has in fact worked quite well; activities such as the park guards program implemented by the EBB over the last two years have strengthened the institution considerably.

There is nothing wrong with a practical management plan which focuses primarily on a three-year period of funding consolidation and border and resources control. At the end of a consolidation period, the institutional framework will have been established such that research and other activities can proceed within a secure and stable organization.

2. Activities

One gets impression that, in the wide-open land-use battle that is going on in the Beni, the EBB has been established early enough that it has secured a niche for itself and for natural resources conservation. The EBB has demonstrated an excellent balance in programming, mixing program, administration, and institution building activities.

The EBB has received \$30,000 from Conservation International for a park guards, or guardaparques program. Six gp's and a foreman stop river travellers and search for turtle eggs which are illegally sold in markets. This project wisely pays a fairly good salary (\$250/month) to the guardaparques, thus attracting individuals who have some qualifications and dedication to the job at hand and will be less susceptible to corruption.

Neighboring campesinos have benefitted from occasional employment, from the good neighbors policy practiced by the field station staff, and from projects in community development such as health (formation of promotores, vaccinations), gardens, and group organizations for rotating seed funds. They have begun to change their attitudes toward pest control and crop

diversification due to training received in integrated pest management and crop rotation. According to EBB staff, campesinos have begun to act as unpaid park guards, informing on trespassers.

Native groups are soon to receive training in park administration. Youth groups in the Beni have begun to realize and work in favor of natural resources. The environment has received consideration on the regional government's planning and policy agenda.

For biologists, basic data on wildlife in the area has been developed which never before existed. This forms the base for resource monitoring. Biologists gain work experience by working on some of the small projects at the station. The EBB is also gaining a pioneering experience in wildlife management never before attained in Bolivia, and from which lessons can be learned and applied to other protected areas.

There remains much to be done. Mahogany (Swietenia macrophylla) and black caiman (Melanosuchus niger) hides are very valuable commodities which are being depleted without effective management in the Beni. The EBB needs to investigate sustainable land use systems and activities which will insure continuous supplies of the renewable natural resources. Some technical areas for investigation include natural regeneration of mahogany, agroforestry systems for soil fertility maintenance, silvo-pastoral systems for livestock control, and timber concession administration. Buffer area integrated development programs are advisable to help consolidate the EBB's boundaries.

3. Organization

The current organizational structure (see Appendix 9a.) has been pieced together over the years as the EBB has evolved to become operative. There is a susceptibility to communications problems, backup persons are not always available, and the Director is far removed from the operations of the institution, this responsibility being delegated to the Sub-Director. To give some examples, there is no telephone communications between La Paz and field personnel, there was a breakdown in the cashflow mechanism from PL-480 to the EBB recently when the Sub-Director was out of La Paz on a training, and the Director has never visited the station. It takes a lot of extra effort to overcome some of the built-in inefficiencies of the present organizational structure.

It is recommended that the EBB implement a new organizational structure such as that recommended in Appendix 9b. The advisory board would be retained but should be reformulated to include some local interests. The Director and the majority of the professional staff would be located in San Borja, where

the EBB has a property and is building an office, and where there are good telephone communications with La Paz. A Coordinator position would be located in La Paz to handle international and national correspondence and to participate in program development and fundraising. Administrative and programming functions would be split out beneath the Director. The staff at El Porvenir field station would be limited to a station chief and staff responsible for those facilities and visitors. Their radio contact would be with San Borja.

4. Funding

The EBB currently receives funding four different ways:

a) The operating fund of \$250,000 deposited in the Bank of La Paz generates approximately \$28,800 annually. The PL-480 program contributed 150,000 of this fund, while the GOB and TGN contributed 100,000 in a debt-exchange agreement with Conservation International.

This is currently used to pay salaries of personnel assigned to the station. Approximately half of those salaries are for personnel in La Paz, which the PL-480 people have complained about. The justification for the La Paz salaries is questionable since there are definite operating needs in the field which are not being met (vehicles, etc.).

The operating fund is guided by a five-year letter of agreement between 1989 and 1993, at which time (1993) it will be decided what to do with the \$250,000. It is recommended that this funding be turned over to the EBB to be utilized in the same manner.

b) The EBB has received \$100,000 directly from the GOB in 1990 and 1991. About half of this money is used for infrastructure (motorcycle purchase, they will build an office in San Borja), and the rest for operations. This funding is tenuous and there is no guarantee that it will be available year after year.

The EBB staff complained that a large proportion of this funding also is spent in La Paz. Approximately 47% of this budget for 1991 stayed in the capital.

c) There are two projects active right now at the EBB. There is \$30,000 from Conservation International for protection and the park guards program, and \$24,000 from UNESCO for a communication and education program. Other projects are starting up or finishing constantly, such as a \$17,000 WWF Rural Population Project, a Native population project with InterAmerican Foundation, and others. The EBB does not take an overhead charge out of the programs at the station.

d) Income from visitors is between \$4,000 and \$6,000 annually.

Total budget for 1991 then is approximately \$190,000. The Sub-Director indicates that they need about \$110,000 annually for operating expenses. Fund-raising is a constant headache for the directing staff.

There was a recent difficulty with the PL-480 funds. The PL-480 administration halted disbursements to the EBB because the EBB was not separating their receipts turned in by fund source.

5. Facilities

The field station in El Porvenir is well set up for training events and to put people up overnight. They are short on mobility, having only one pickup truck, one motorcycle, and one horse. They have a outboard boat motor but no launch.

The EBB has been given a terrain in San Borja, where they are planning on building an office.

B. AMBORO NATIONAL PARK (PNA)

PNA covers an eastern flank of the Andes where three great ecological regions meet: the Chaco, the Amazonian lowlands, and the Andean highlands. This has created an area of extraordinary biodiversity. The park provides the headwaters and fish spawning grounds for the Ichilo River and its tributaries which pour out of the mountains onto the rich agricultural flatlands below. The mountains in the PNA receive up to 4000 mm of rainfall per year.

An 184,000 hectare park was established by Supreme Decree in 1984 to protect the area. Not much happened on the ground until a 1988 BID project dedicated a small portion of their highway construction program to include a park management project. The park area was expanded to 634,000 hectares during the same year.

Access to the park during the rainy season is difficult, from the South because there are no bridges, and from the North because of the rugged topography. A large bridge over the Surutu River is in great danger of being under cut by the dynamic river.

The chief attraction of the PNA is the variety of ecosystems in a small area, which is of debatable practical drawing power for tourism given the risky access (one could be stranded in the park after a heavy rainfall). There are no facilities for visitors. Establishing a viable park seems to be an unrealistic goal given the size and infrastructure needs of the PNA.

Park budgets should be concentrated on more viable park opportunities. This area could be managed in a more effective manner as a natural area, eliminating the need to provide visitor facilities and security. Protection of natural resources and

conservation of the watershed would become the only two objectives; resource protection activities such as the guardaparques would of necessity be maintained. Visitors could be permitted but warned of the dangers. As a natural area it could easily be considered for conversion to a park at a future date.

Three institutions have worked in natural resources management in the area. The Forestry Development Center (CDF), as representative of the Ministry of Agriculture in Santa Cruz, is the governmental institution in charge of the park. The Foundation of Friends of Nature (FAN) has worked in park management in the Southern half of the park, while the SEGMA/BID project has taken responsibility for the Northern half of the park. All three institutions have had some relation with the PL-480 program.

1. Forestry Development Center (CDF-SC)

The CDF has the department-wide responsibility of administering timber exploitation, administering forest conversion to agricultural land, protecting wildlife, implementing forest research, and administering national parks. They have a staff of 140 persons, of which 40 are field-based technicians, eight vehicles of various types, a central office and four provincial offices, a forest laboratory, and nursery facilities. They finance themselves by charging for the right to clear forest land for agriculture, gaining an income of approximately \$1 million per year.

The CDF has designed an interesting project to improve the administration of timber concessions in the Production Forest adjacent to the PNA. To do this they want to establish control points and outfit them with technical personnel, radios, and vehicles.

The original proposal for this project was rejected by USAID/B for including a vehicle purchase, later reformulated to include only infrastructure, operating costs, and equipment, and then reduced to a pilot project by PL-480. The pilot program was recently approved through Title I.

2. Foundation of Friends of Nature (FAN)

FAN is a Santa Cruz-based NGO created with the objective of protecting the bio-diversity of Bolivia. Its staff consists of a 16 person directory, an executive director, two professionals in project development and financing, three biologists, an airplane pilot, and park administrators and park guards in Amboro and Noel Kempf National Parks.

Their facilities include an office in Santa Cruz with

meeting rooms, video cassette equipment, a small technical library, computers, local mobility, a copy machine, and radio communications with PNA and PNNK. They have recently purchased a light plane to access the remote PNNK.

Their organizational overhead currently needs an operating budget of \$100,000 to manage projects of a value of up to \$500,000. However, their projection is an overhead of \$150,000 to manage \$1,000,000 in projects.

FAN receives 80% of its operational funding from foreign institutions and individuals, 15% from an overhead charge of 12-15% per project, and 5% from national donations such as the PL-480 program. They have refused projects offered to them which did not coincide with organizational objectives.

FAN has provided serious impetus to conservation activities in Eastern Bolivia, developing a proved record of projects with various donors in its two plus years of existence. FAN collaborated on the census of PNA families in 1989 which was funded by PL-480 Title III. It currently has three proposals turned in to PL-480 to which it has received comments but no indication as to whether the proposals are being seriously considered or not (see Section IV.B.). They feel that PL-480 makes the project approval process unnecessarily complicated and time-consuming, not establishing clearly what they are looking for so that proposals can be tailored to requirement. The previously cited letter from PL-480 to FAN in Appendix 4 is a clear evidence of this.

3. SEGMA/BID

The SEGMA/BID program in PNA, called Management and Conservation of Amboro Park, was financed as an environmental consideration in the BID highway construction project. They submitted to PL-480 an Environmental Education project proposal as a supplement to the CDF Forest Administration project. This was rejected, and resubmitted as an independent proposal. At the moment they do not know where they stand with PL-480 and the Environmental Ed. project. They plan on re-submitting a proposal for the expanded park area, projecting a need of approximately \$160,000.

The SEGMA/BID project has been assisted by PL-480 Title I funding in the establishment of a red line beyond which resources utilization is prohibited. The BID is financing the construction of camps for the park guards at key geographical points along the red line.

C. EXECUTIVE PROGRAM FOR LAND REHABILITATION IN TARIJA (PERTT)

The land use systems in practice in the Tarija valley is

inappropriate for the carrying capacity of the environmental resources. Overgrazing combined with firewood cutting has stripped the land of its natural forest and grass cover, resulting in severe soil erosion throughout the valley. A total of 240,000 hectares of land currently suffer from soil erosion, with an increase of over 1,000 hectares annually.

The Executive Program for Land Rehabilitation in Tarija (PERTT) was created in 1978 to combat this problem. In 1987 a new law was passed by the national government which gave the state the right to take land from its owner if it was being used improperly. The PERTT program was to be involved in various aspects of this law, including the determination of proper use, technical assistance, and administration of a rotating fund for improved land productivity.

The goals of the PERTT program for the 1987-91 period were to incorporate organized communities into soil conservation, reforestation, and land rehabilitation activities; to elaborate detailed operational plans together with rural communities; to implement reforestation, gully control, support to natural vegetation, soil conservation, etc., in 2090 hectares, and to provide training for technicians and rural families.

PERTT has a long history with PL-480, dating back to 1981; more than \$354,000 were disbursed to PERTT between 1981 and 1985. In 1986, an agreement was reached for an additional \$169,000 to be used for office infrastructure, nursery infrastructure and supplies, community centers, a vehicle, and wire and other materials and equipment. Other specific activities funded with this agreement included aerial photos of the Tarija valley (done by the National Aeronautical Service), and a land use capability study by CUMAT. No activity goals were set for hectares of land to be conserved.

The PL-480 has not been a large contributor to the PERTT overall budget in recent years. However, outside support to PERTT has decreased, and they look to PL-480 to play a more important role in the future. PERTT receives approximately \$150,000 per year from the GOB, and FAO/Norway funding of approximately \$200,000 per year. They have in the past received annual amounts of around \$300,000 from Germany, and \$250,000 worth of food from the WFP. According to the project's general manager, Martin Gallardo, food was eliminated as a component because it was creating a dependency on food as a criteria for participation.

Mr. Gallardo indicates that PL-480 funds have played an important role in project activities. During the first months of the year, disbursements from the GOB are very difficult to obtain. This is also a very busy time for field work, especially moving tree seedlings out to the field and supervising their planting. By developing an annual disbursement agreement PL-480, PERTT has been able to assure program operability at this

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critical time.

1. Activities

A summary of the results of PL-480 funding is presented below:

	planned	actual
Tree seedlings produced	unclear	560,000
Community centers constructed	4	4
Vehicles purchased	1	1
Aerial photo coverage (ha.)	29,500	29,500
Land use capability study (ha.)	10,022	10,022

On this level, PERTT has demonstrated an ability to follow through on agreements made with PL-480.

Community interest in forest trees appeared to be mixed. The Sella de Quebrada community complained of the lack of immediate benefits of their participation in the nursery, and indicated they would like to receive food as compensation for their time invested. (The community showed up for work on their scheduled day, but since the extensionist had been given other duties for that day and did not show up, no one was working.) [NOTE: this community was also worried about the loss of their agricultural land to a dam project so that this may have contributed to their attitude.] The Candelaria community was more enthusiastic, and had used trees for live fences and living barriers on a contour.

PERTT can demonstrate some very good soil conservation work in the lower valleys where putting vegetation out of the reach of goats is a difficult task indeed. A large 187 hectare soil conservation area installed with the COINCA cooperative demonstrated indicators of greatly improved soil stability after a combination of soil conservation activities were implemented, including:

- install barb wire fencing
- plant native species w/ half moon catchment techniques (>95% seedling survival was observed)
- gully control via cement dams, sandbags, dried branches
- re-seeding with grass.

The other principal PERTT field activities seen were block reforestation with eucalyptus. Survival is not measured by the project, but was observed to be good, usually >80%, when fencing holds up. There seems to be some confusion about the objective of these plantations. Eucalyptus spp. are inappropriate for soil or water conservation, except in an indirect manner by providing future fuelwood thus decreasing pressure on existing woodlands in the years to come.

The community centers which were visited during the field trip consist of a building with several rooms and a lorena stove outside. While the centers were found to be in good condition, the reason for this appeared to be that they weren't used very much. The three centers visited during the evaluation were completely empty, even one where the community was working that very day. The lorena stoves demonstrated use but not that of more than a few times.

The PL-480 supervisors visit the PERTT project 3-4 times per year. Periodic reports are sent in for 3-6 month periods, and an annual report is traditionally prepared. Apart from supervisory visits to confirm that money was spent as designated in the project agreement, there was no evaluation done on project.

PERTT in general gives an impression of being a "pudgy" project, i.e. that all of the central needs are assuredly taken care of, and if something is needed it will be bought. Of the payroll of 69 persons (approximately \$170,000/year), only eight are extensionists. There are five drivers on the payroll. Mr. Gallardo indicates that the staff has been reduced from a high of 127 in 1988, and that approximately 150 seasonal field workers are employed to install fence, etc.

Administrative costs are not split off from programming costs in the budget so it is difficult to determine what percentage of the total goes to each. PL-480 funds are deposited in a separate bank account from other funding sources.

PERTT has done a good job of developing an office structure, transforming a warehouse into a viable project headquarters.

PERTT has begun to get involved the 286 hectare Las Barrancas National Park adjacent to the PERTT property. They have put in roads with no drainage, fencing, guards, and some soil conservation practices. The ungrazed grasslands looked like a potential fire hazard.

PERTT has a new proposal recently submitted to PL-480. It calls for the following activities:

- production of 1.6 million seedlings per year (1.0 in central nurseries, 0.6 in community nurseries)
- coime (a highly nutritious grain appropriate for the zone) production in 50 hectares per year
- installation of 100 bee boxes
- cochinilla production in 50 hectares per year
- 50 rural schools, 5 high schools to receive awareness campaign
- installation of five control points and other infrastructure in Las Barrancas National Park
- construct new PERTT offices on the National Park land
- construct community center and warehouse for all community nurseries.

The PL-480 proposal is part of a twenty year plan by PERTT to bring every hectare of erosion in the Tarija watershed under control. This plan carries the price tag of \$184 million, or \$4842 per current rural resident, or \$767 per hectare. There is an economic analysis supporting the proposal.

2. Analysis

The previous agreement between PERTT and PL-480 suffered from a lack of focus. The "goals" established with PL-480 do not represent fundamental changes in the land use system, which is the problem the PERTT project set out to address. It is impossible to measure how many hectares of soil conservation were completed with PL-480 money. Since on-the-ground criteria was not set as a project goal with PL-480, this important variable can only be evaluated in a global manner in combination with other funding sources.

PERTT's overall achievements have come very dearly to the donors. The land use changes brought about by the project have cost a total of \$7.9 million over the life of the project:

Stabilization	609 has.
Reforestation for production	143
Reforestation for protection	800
Reforestation in silvo-pastoral systems	32
Demonstration plots	50

Total	1634 has.

The cost per hectare comes out to \$4834. The project obviously needs to improve its efficiency. PL-480 should take this into account in its evaluation of the proposal submitted by PERTT.

The new PERTT proposal for PL-480 is more activity oriented than the previous, as what the money will be used for is clearly spelled out, yet one gets no idea how much soil conservation will be carried out. In this sense PERTT is repeating the weakness of the previous agreement.

To be more specific, coime and beehive production should be categorized as supplemental community activities which receive but a small share of a budget directed toward soil conservation. One must be aware of the limitations in substantial change in living conditions of the rural poor which are solved by this type of "cute" technology. PERTT should stick to what it does best and try to replicate the COINCA site in a cost efficient manner.

The need for fencing in the lower watersheds appears so great and so crucial for livestock control that it becomes an essential part of the rural infrastructure. A fencing crew employment program reimbursed partially with WFP food could work year round and contribute a great deal to soil conservation in

the Tarija valley. PERTT could follow this up with additional soil conservation activities, and concentrate more on extension.

The PERTT formula needs to be better adapted to the needs of the individual community for it to become sustainable. Separate community strategies should be developed for lower and upper valley communities where the problems are different.

With regards to reforestation the project needs a strategy to turn over the program over to the communities. To do this they must increase benefits or lower "costs" realized by the participants. The most difficult area will be in seedling production, where short term costs in time are difficult to cover with the promise of firewood in ten years. The project should increase its attention to fruit trees production where there is a great interest by the communities.

PERTT should develop activities which incorporate modern range management techniques for the population which grazes animals as a part of its soil conservation strategy. Agroforestry and silvopastoral systems which utilize trees to produce browse should be developed.

The Las Barrancas National Park is kind of a misnomer. The small size and proximity to the city of Tarija make it more of a municipal park. PERTT should stay out of parks, even if they can be used for demonstrations.

D. CENTER FOR SOCIAL AND ECONOMIC DEVELOPMENT (DESEC) FORESTRY

The Center for Social and Economic Development (DESEC) is a private, independent, non-profit institution founded in 1963. DESEC received formal governmental recognition in 1966. DESEC's general objective is the organization of the popular sector, and its participation in the social and economic development of the nation. DESEC has oriented its actions principally to the rural sector.

DESEC has been instrumental in the creation of various grassroots organizations in the Cochabamba area, such as the Rural Artesan's Association (1964), the Popular Housing Association (1965), the Small Farmer Education Institute (1967), a Potato Seed Production Unit (1984), and Amerindia (artisan centers). DESEC and its spinoff institutions have worked with over 200 community organizations and given over 600 courses of distinctive types to over 15,000 rural families.

The DESEC Forestry project began in 1983 with the support of PL-480 and COTESU (through CORDECO). Its objective is to improve soil management and preserve the ecological equilibrium through the establishment of a forest repopulation program. They have established six specific objectives, among them those of controlling agrologic conditions, orienting resource management

to rational practices, reforesting marginal areas, and generating jobs. In keeping with its focus on institutions, DESEC formed an Inter-institutional Forestry Committee to coordinate forestry activities in Cochabamba, as well as a Community Forestry Committee umbrella organization to represent collective forestry issues.

1. Project Management

Records of the DESEC forestry program achievements over the last three forestry campaigns are presented in Appendix 6 in the review of projects. DESEC maintains two regional nurseries to produce seedlings for its reforestation program. PL-480 funds, along with DESEC and CORDECO funds, are used to finance its payroll for the two nurseries, purchase nursery supplies, seeds, etc., set up infrastructure, and to finance three extensionists and their training program.

DESEC planning is centered at the nurseries but there is an appreciation for individual community requirements. There is good coordination with other similar reforestation projects in the area as evidenced by area assignation by project and by co-participation in species trials at different ecological floors. The project has done some advance thinking in indicating that they will develop a forest management and utilization component to work with forest harvesting systems.

Community entry at the beginning of the project was through small-scale trials, but staff indicate that there is sufficient popular interest that they now receive more programming requests than they can attend.

DESEC manifests that the coordination with PL-480 is good, and that resources arrive when they are planned. DESEC has concluded its current obligation with PL-480, and is operating on DESEC and CORDECO funds. They have no proposal prepared, but indicate that they will develop one in hopes of continuing the relationship with PL-480.

As the activity summary indicates, DESEC over the last few years has done a good job of setting out activity goals and following through on them. The field visit to the communities revealed that the reforested areas had good survival with the exception of two plantations which suffered damages from brushfires. The farmers interviewed were content with the forestry project; importantly, their follow-through on plantation maintenance is an indicator that they place a value on the plantation. (Their previous attitude was that the forest resource was something to be mined for firewood.)

The DESEC reports follow a standard format, are fairly well organized, and indicate a conscientious attention to detail. The variation in the period covered by the reports is mentioned in Section IVF. Participating farmers indicate that the extensionists visit the communities an average of three times per

month. DESEC says the frequency of PL-480 visits is about three times per year.

2. Analysis

The DESEC project is a well organized program which has found an adequate formula for reforesting rural areas in Cochabamba. The project has remained quite stable for the last three years, although one nursery is being expanded.

The limitation to the DESEF project is that seedling production is dependent on project funding. If funding were to be cut off, reforestation would probably not continue. DESEC staff indicate that the communities have agreed to pay to the project 30% of the total value of wood products sold from project plantations. Farmers expressed that they would be willing to pay small fees for tree seedlings. Neither of these tentative solutions is very convincing.

The project needs to develop a clear strategy to sustain seedling production. The project should focus both on increasing benefits and on lowering those "costs" (especially in time, since manpower is short) realized by the participants. They may need to experiment with different models before finding one that is acceptable. Family nurseries, bare-root cultivation, and seedling sales are examples of possible tactics which could be utilized as a way of improving sustainability. It will take some time and it will not be easy.

Population pressure on land as seen during the field visit was not yet extreme. Farm families had 3-4 hectares of agricultural land so pressure to maximize utilization of each individual parcel is not great, and manpower is likely to be scarce. This gives the project some time but will cause the promotion of a more community based approach to be more difficult. (DESEC indicates that their other work site is quite different, so these observations may be less relevant there.)

A community development model based on forest production will not work. While project participants were content with the project, they are farmers, and their focus is in agricultural production. Their production is limited by plagues such as nematodes and funguses, and lack of water. Wind is a constant in the areas visited (increases evapotranspiration). Farmers know what soil erosion is but do not know how to stop it. No soil conservation practices were observed in the field, even though all the cultivated areas were on slopes.

The DESEC project can augment the benefits realized by the participating farmer while still retaining project goals by developing agroforestry systems appropriate for the distinct conditions in encountered in the field. Andean farmers need to improve production while maintaining productive capacity. Fruit

tree/row crop systems, windbreaks, living fences for firewood production, and slow formation terraces are some systems which can be developed and refined by the DESEC project. Species trials should be expanded to include agroforestry systems and should take into account the human element. After all, the human element is the principal problem in the fundamental change to be enacted.

Another technique to improving sustainability is to link forestry activities (where benefits are long-term) to activities of short-term benefit, such as small scale irrigation, agricultural credit, seed improvement, etc. Participation in seed improvement programs, for example, would be made contingent upon installing appropriate conservation measures on the same parcel.

Nursery production eventually needs to be either financed by the project or taken over by the participants. This will allow DESEC to concentrate more on extension, and to replicate its experience with the more communities each year. Both of these adjustments will allow DESEC to increase its impact to the target population.

There are good examples of sustainability strategies for agroforestry projects in Peru. The Arbol Andino project in Puno has worked with family nurseries. The ARCA project managed by CARE-Peru has experimented with integrating activities, and with various types of agroforestry systems. The FAO/Holanda project has experience with small lumber mills and furniture making. Mr. Enrique Schwartz, an ex-national coordinator with that project, currently works with FAO in Potosii, and would be a good source of information.

E. ENVIRONMENTAL DEFENSE LEAGUE (LIDEMA)

LIDEMA is an umbrella institution formed in 1985 to represent the interests and pool the powers of a group of 11 PVO's, NGO's, and GO's which work in the environmental field. LIDEMA's stated objective is promotion and consciousness raising in environmental issues, and the internal and external coordination of its members institutions and their activities. Coordination is achieved by offering technical and logistical support to its member institutions, by channeling financial assistance to members, and by assisting in coordination with other institutions.

LIDEMA's organization consists of a Directory (Pres., VP, Secretary, 2 vocales); Technical, Communication, and Administration Committees; and a General Assembly (Executive Dir., Chief Technical Unit, Chief Administrative Unit, Chief Communications Unit, 3 administrative support staff). All members of the General Assembly are on the LIDEMA payroll.

LIDEMA can demonstrate some important achievements in its four year existence. LIDEMA provided technical assistance to the Sub-Secretary of Natural Resources in the development of a separate Ministry for Environmental Affairs. It has developed a practical guide to preparation of proposals to financing institutions. LIDEMA has also served as contact and conduit for financing of various projects by its members.

1. Relations with PL-480

LIDEMA has a long history of relations with PL-480; its survival as an institution has actually depended on the institutional support provided first by Title I funds in 1985, and later by Title III funds from 1987 onwards.

Three institutional support agreements have been negotiated with PL-480 to pay for salaries of the General Assembly and support staff. Institutional support was given to LIDEMA members in the form of office supplies and equipment in 1987-88.

More recent events have led to the development of an external evaluation project to evaluate LIDEMA's functioning as an organization. In attempting to become self-sufficient, functions of General Assembly members had been increased to include governmental relations, project administration, institutional coordination, PL-480 relations, and fund raising. LIDEMA had requested an increase in operational funding to add staff in order to relieve the added workload.

The PL-480 then made a very critical analysis of LIDEMA's ability to coordinate its member institutions, implying that LIDEMA had become a puppet of its most powerful institutions. PL-480 concluded that LIDEMA needed to improve communications and coordination, to develop priorities, and to be more specific as to goals and activities. Continued support to LIDEMA was made to be contingent upon the results of this evaluation.

The additional cost of LIDEMA's request would have been approximately \$22,000 per year. The LIDEMA evaluation is budgeted at \$150,000.

LIDEMA from the start has been the channel for funding small projects to its members from PL-480. This coordination was made more efficient after LIDEMA completed a five-year management plan in 1989, leading to a series of project proposals which could be presented as a group within a multi-year framework.

This management plan is much more coherent than the others reviewed in the evaluation. Five specific objectives are set up, under which the 29 projects are proposed. This is followed by an annual activity plan and budget. Although lacking in monitoring and evaluation guidelines, and although the relation between

activities and objectives is not quite clear, the five year plan is a practical, effective tool which is being followed by LIDEMA and PL-480.

The current state of relations between LIDEMA and PL-480 is not the best. Poor relations with PL-480 played a factor in the recent resignation of the Executive Director of LIDEMA.

One of the long-time complaints of PL-480 has been the inability of LIDEMA to support itself. As the percent of overhead support received from PL-480 declined from 100% to 60%, LIDEMA, like the rest of the NGO's surveyed, has been forced to devote time to fundraising. They have raised some funds by selling stickers and copies of the Environmental Profile, received some assistance from Conservation International, and collected some overhead money from member institutions. The future of LIDEMA for now, however, remains tied to PL-480.

LIDEMA repeats the story heard at other NGO's. PL-480 does not know what they want and does not establish clear rules. Then when they receive work that they don't like, they send it back and won't pay. They feel that PL-480 does not understand environmental issues. There are also complaints about delays in funds disbursement.

2. Analysis

It is distressing to see two institutions with a non-productive relationship. Communications are bound to suffer. Both LIDEMA and PL-480 need to make clear their expectations for one another.

It is questionable just how realistic it is to expect that LIDEMA will attain self-sufficiency. Changing into an implementing institution holds the danger of blurring the fundamental role of LIDEMA. Fund raising techniques such as selling stickers etc. may work in the United States but not in Bolivia- the man on the street has no money.

PL-480 does not appear to have a clear idea of what LIDEMA should be, outside of self-sufficient. Their commentary lacks facts and the recommendations need to be more precise.

LIDEMA as an organization is breaking new ground in the environmental field in Bolivia, and deserves some slack. A democratic organization will always suffer from some politicking. An experience exchange with a similar organization in another country would be helpful. The upcoming evaluation should also shed some light on the situation.

VI. CONCLUSIONS AND SUMMARY

1. The Executive Secretariat has demonstrated the ability to supervise a variety of projects in NR/E.

At least part of an improved national consciousness about the environment is due to the support of PL-480. Whether they saw it on television, received an extension visit, or attended a class, the message appears to be out. Even the government is paying closer attention. What is yet to be seen is substantial reverses in unsustainable resource use practices.

2. The developmental impact of the NR/E projects can be increased if the Executive Secretariat amplifies its conceptual role from that of project administrator to development programmer.

Development will only occur when a series of interventions succeed in effecting a series of fundamental changes in a target population. Non-counterpart funds (where PL-480 has management responsibility) can go a long way towards changing some existing conditions in a developing country if they are programmed deliberately toward resolving clearly identified problems. PL-480 can do more than receive proposals, evaluate them, and administer the financing. PL-480 needs to use its resources strategically to assure that those changes occur.

3. The change in conceptual role will require a series of changes in the way the Executive Secretariat manages its program.

The ES needs to develop clear regional development strategies based on analyses of overall development needs for each region. This strategy should then be used to define criteria for project acceptance within the region. The PL-480 then has a responsibility with its clients to lay out those criteria in broad working guidelines and then stick to those guidelines. Thus participating institutions may tailor their proposals to programming needs. USAID/B guidelines such as food deficits will obviously have to be considered in the development of programming strategies.

The environment can usually take care of itself if left alone. The problem is man and technology. Taken together man, technology, and the environment represent the land use system. Problem analysis should be at the Land Use System level. NR/E programming goals should focus on improving man's ability to manage natural resources. A practical manual on land use system analysis is available from ICRAF (International Center for Research in Agroforestry) in Kenya, under the title Diagnosis and Design Manual by John Raintree.

To set constraints, PL-480 should develop a funding mix by region, X% for Beni, Y% for Santa Cruz, etc., based on needs. Funding mix formulas can also easily be applied within the regional development strategies. For example, PL-480 may develop a mix of 50% institutional support, 25% field projects, and 25% education for a region when that region's needs are greatest in institutional support.

Programming priorities should be examined periodically and revised if necessary.

PL-480 needs to improve its mastery of the logical framework. Final goals are the resolution of the identified problem, intermediate goals create the conditions so that the final goal may be attained, and indicators describe important aspects of the various goals. Guidelines for writing final and intermediate goals and indicators are presented in Appendix 10.

There is a need to be more analytical in the trip reports. Activities go wrong for different reasons- poor supervision, lack of resources, reasons beyond the control of the project. The report should look for common threads and trends which are manifested as problems in achieving activity goals, analyze the causes, and make recommendations.

Monitoring reports would be more useful for USAID if they indicated progress in achieving project success indicators.

Final evaluations are useful exercises that should be built into multi-year extension projects as a standard part of the project design. Both PERTT and DESEC have or will have prepared follow-up project proposals for funding by PL-480 without an independent opinion as to the effectiveness of their interventions. Both PERTT and DESEC were found in this short evaluation to have weaknesses were not spotted by PL-480. An experienced independent evaluator will help bring these projects up to date with what's new in extension and resources management.

All multi-year extension project proposals should include the final evaluation key questions as part of the initial project design in order to help focus the implementation of the project.

The programming emphasis will work better if accompanied by a re-organization of the PL-480 technical staff. Technical specialists should be grouped into three or four basic divisions who report to the overall technical director (who should be renamed the Programming Director). NR/E logically falls into a division with agriculturally related activities which could be called rural land management, rural development or something similar. An increase in NR/E funds means that supervisory staffing will have to be beefed up as well.

When hiring new personnel, the ES should look for management and program development skills in addition to technical skills.

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Each division should be required to develop an integrated strategy by geographical region. NR/E activities which are not recognized as important by the land user can be piggybacked onto sure winners such as irrigation and seed improvements.

4. Finally, USAID will need to participate in the implementation of these recommendations

In view of the increased environmental and natural resources funding planned by USAID/B for 1992-94, the recommendations of this evaluation take on increased importance. It will not be enough that USAID delegates the development of an action plan to PL-480. There are a lot of very basic recommendations in this document, which indicates that there are some fundamental changes required to improve the management of this program under the new PL-480 law. USAID/B participation in the followthrough of the recommended changes will probably be necessary to assure that they are implemented.

Program management training is one of the tactics which USAID should pursue with the PL-480 natural resources sector. The environmental field is generally staffed by professionals under forty years old who will probably be very receptive to new ways of looking at development.

The ES PL-480 suggested that some training be dedicated towards educating their economists on the economic impact of natural resources on a project.

For the long term, USAID and PL-480 may look at ways to strengthen the career path of professionals entering the natural resources field. The best trained professionals in Latin America usually come from capital cities, and spend very little time in the field before being handed larger responsibilities at regional and national levels. A longer apprenticeship, if combined with a guaranteed placing afterwards, may give young professionals improved perspective to development needs of rural areas. An alternative strategy may include career enhancement incentives for promising professionals from the regions who have an inherent appreciation for regional needs.

Another option that USAID and PL-480 may look into is working with some of the international NGO's that are in Bolivia. CARE and FAO are arguably the two most experienced institutions worldwide in agroforestry and both have missions in Bolivia. They have access to international staff, ample experience in project management, and can probably bring in some complementary funds.

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER September 23, 1991	2. CONTRACT NO. (if any)	3. ORDER NO. 511-0000-0-00-1496	4. REQUISITION/REFERENCE NO. 511-0000-01-3-10119-01
5. ISSUING OFFICE (Address correspondence to) Regional Contracts Office USAID/Bolivia Casilla 4530 La Paz, Bolivia		6. SHIP TO: (Consignee and address, ZIP Code) SHIP VIA:	

7. TO: CONTRACTOR (Name, address and ZIP Code)

John A. Riggan
Calle General Cordova 2627A
Lince, Lima 14 Peru

72-1111021
LDNA-91-25511-KG13

8. TYPE OF ORDER
 A. PURCHASE - Reference your negotiation 09/91
 B. DELIVERY - Except for billing instruction on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA
7201111021
LDNA-91-25511-KG13
511-0000.01-3-10119

10. REQUISITIONING OFFICE
ARD Office
11. BUSINESS CLASSIFICATION (Check appropriate box(es))
 SMALL OTHER THAN SMALL DIS-ADVANTAGED WOMEN-OWNED

12. F.O.B. POINT
13. PLACE OF INSPECTION AND ACCEPTANCE
USAID/Bolivia ARD, J. Sleeper

14. GOVERNMENT B/L NO.

15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)

16. DISCOUNT TERMS

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	For the firm fixed price mentioned in item 17 (1), the contractor will provide the services/report(s) in accordance with the following statement of work. <u>ARTICLE I - Statement of Work</u> <u>A. Summary</u> The contractor will provide technical services to USAID/Bolivia for the evaluation of natural resources management and environmental activities which have been carried out under the 1986-89 and 1990 PL-480 Title II and 1985 Title I programs implemented by the Executive Secretariat.					

FUNDS AVAILABLE
25 SET. 1991
Signature

Thomas Johnston

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT	20. INVOICE NO.	17(H). TOT (Cont. pages)
	21. MAIL INVOICE TO: (Include ZIP Code) Controller's Office - USAID/Bolivia		US\$ 6,300.00	17(I). GRAN TOTAL

22. UNITED STATES OF AMERICA BY (Signature)
Clement J. Bucher 9/27/91

23. NAME (Typed)
Clement J. Bucher
TITLE: CONTRACTING/ORDERING OFFICER

**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER September 23, 1991	CONTRACT NO.	ORDER NO. 511-0000-0-00-1496
--	--------------	--

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
B.	<p><u>Background</u></p> <p>USAID/B currently assists the Government of Bolivia to import about \$20.0 million/year of wheat which is sold locally to millers. The proceeds from this sale are jointly programmed by USAID and the GOB for purposes of rural development and policy change. Actual administration of the program is carried out by the Executive Secretariat, whose portfolio covers a broad range of activities and programs from maternal and child health to rural infrastructure. Included in this portfolio are natural resources management and environment programs totalling more than US\$ 15 million. The financing for the ES's programs comes from annual Title III agreements or amendments. The 1986 Title III agreement was amended three times, and therefore covers four years. The 1990 Title III agreement is a single-year agreement.</p>					
C.	<p><u>Purpose and Scope</u></p> <p>The purpose of the technical services is to write an evaluation of the ES's natural resource management and environment activities. It is <u>not</u> the purpose of the technical services to provide a general picture of the environmental problems in Bolivia, nor describe in a general manner what is wrong with Bolivia's current natural resources policy environment or law enforcement, except insofar as it directly relates to the success or failure of a specific ES project activity which is being evaluated by the contractor.</p> <p>In close consultation with the ES technical staff, the consultant will: review the project information available in the ES; establish a list or matrix of each and every environmental/natural resources project activity, date began, amount committed, amount spent, pipeline, etc.; interview key persons in government or other organizations involved with the particular activity; establish impact or success indicators for selected activities; make selected field visits to (not to exceed) five field activities; interview people in the field; and write up the analysis in prose, table and (if appropriate) graphic form. The analysis will also provide a description of policy/regulatory problems which may have directly affected the success or failure of selected activities.</p> <p>The following are typical project success indicators by which the success of activities could be measured, depending of course upon the particular nature of the ES activity evaluated. They are only given as examples.</p>					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER September 23, 1991	CONTRACT NO.	ORDER NO. 511-0000-0-00-1496
--	--------------	--

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	<p>(a) Improvements in natural resource management practices.</p> <p>(b) Improvements in the natural resource base (No. of trees planted, evidence of decreased soil erosion, improved water management).</p> <p>(c) Number of individuals who received training.</p> <p>(d) Progress in taking inventories of natural resources in protected areas.</p> <p>(e) Number, content, and/or quality of laws passed to protect natural resources.</p> <p>(f) Number, content and/or quality of seminars, publications, publicity programs achieved.</p> <p>The contractor will review the list or matrix of project success indicators, and ES activities selected for field evaluation, with USAID/Bolivia before continuing with field work. The services described above are to be analytical in nature--under no circumstances will USAID accept purely anecdotal material, or material not substantiated by actual observation, objective interviews with project participants, or review (and citation) of project publications.</p>					
D.	<p><u>Reports</u></p> <p>The contractor will submit a final draft of his work to the Director, Office of Agricultural and Rural Development, or his designee, in English. Upon review and approval by this individual, the contractor will submit in final, in clearly legible print. The report will be entitled, "Evaluation of PL-480 Title III Activities in Natural Resources Management and the Environment." The report will be organized in the following fashion:</p>					
	I. Executive Summary					
	II. Introduction					
	III. Background					
	IV. General description and Impact of ES Activities under the 1985-89 and 1990 Title III Agreements					
	V. Project Activities Selected for Intensive Evaluation					
	VI. Summary and Conclusions					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

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**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

4

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER September 23, 1991	CONTRACT NO.	ORDER NO. 511-0000-0-00-1496
--	--------------	--

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
B.	<u>Relationships and Responsibilities</u> The contractor will work under the general direction of the Director, Agricultural and Rural Development Office, or his designees. The Contractor will coordinate work with the General Director and Financial Director of the Executive Secretariat, the PL-480 implementing agency, and their designees. Additionally, the contractor will be required to interview numerous people in the natural resources and environment field in Bolivia, including local representatives of U.S.-based environmental groups.					
F.	<u>Proprietary Rights</u> Under no circumstances at any time may the contractor publish, or cause to be published, in any journal, newspaper, circular, bulletin, magazine or any other document intended for consumption by the public, without the prior written approval of the Director, USAID/Bolivia.					
	<u>ARTICLE II - Period of Service</u> The period of service under this purchase order shall commence on/about September 29, 1991, and terminate on/about October 25, 1991.					
	<u>ARTICLE III - Compensation and Method of Payment</u> As full and complete compensation to the contractor for the services/products described in Article I, the contractor shall receive U.S. dollars (U.S. \$ 6,300.00). The contractor must submit Voucher form 1034 in an original and three copies, duly signed by the project manager, to receive any payment under this purchase order. Payment will be processed upon receipt and acceptance of all services/products. The following schedule of progress payments is hereby authorized: 50% of \$6,300.00 to be processed upon arrival in country. 50% of \$6,300.00 to be processed upon receipt and acceptance of the final report. Note: Appropriate income tax reporting requirements (1099) will be filed for compensation received under this purchase order.					
	<u>ARTICLE IV - Logistic Support</u> All logistic support is to be arranged/provided by the contractor.					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

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**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER September 23, 1991	CONTRACT NO.	ORDER NO. 511-0000-0-00-1496
--	--------------	--

ITEM NO. (A)	SUPPLIES OR SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	<p>ARTICLE V - Special Requirements</p> <p>Bolivia is currently a medium security threat post, although it may soon be reclassified by the State Department as a high threat post due to recent terrorist incidents. It is a requirement that all visitors to post attend a security briefing prepared by the Executive Office shortly after their arrival in order to become familiar with measures to reduce individual vulnerabilities and to know what to do in the event of an emergency.</p> <p>Travelers are advised that they must, repeat must, plan to spend their first working day in La Paz, Bolivia for a security briefing given by the USAID Executive Officer. Under no circumstances are AID funded travelers allowed to travel within Bolivia without a security briefing.</p> <p>The altitude of La Paz (12,500 feet above sea level) can have a deleterious effect on the health of persons with pre-existing medical problems and/or respiratory infections. Individuals with hypertension, diabetes, angina pectoris, coronary heart disease, asthma, emphysema, chronic bronchitis, or any history of heart attack, heart disease, or lung disease, should have a thorough evaluation by their physician prior to traveling to La Paz. Persons with any respiratory infection, such as cold, bronchitis, or pneumonia should delay travel to La Paz until they have fully recovered.</p> <p>USAID/Bolivia requires a doctor's statement declaring that incoming short-term personnel are not afflicted by any of the above pre-existing medical problems. If such problems exist, a full physical exam is required prior to departure for Bolivia.</p> <p>Adjustment to the altitude usually requires only a few days. Personnel should, if at all possible, limit their physical activity for the first 36 -48 hours after arrival in La Paz.</p> <p>LAST ITEM</p>					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

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Appendix 2

EVALUATION FIELD VISIT SCHEDULE

October 7, 1991

La Paz-Trinidad (air)

Trinidad-Beni Biological Station (air)

October 7-9

Beni Biological Station

October 9

BBS-Trinidad (truck)

Trinidad-Santa Cruz (air)

October 10-11

Meetings Santa Cruz

Amboro National Park

October 12

Santa Cruz-La Paz

October 14

La Paz-Tarija

October 14-16

PERTT

October 17

Tarija-Cochabamba

October 17-19

DESEC

October 19

Cochabamba-La Paz

LIST OF PERSONS CONTACTED

Jack Sleeper, USAID/Title III
Jorge Calvo, USAID/Title III
Dr. Carlos Brockman, Executive Secretary, PL-450
Luis Jordan, Technical Director, PL-450
Carlos Murillo, Technical Evaluator, Natural Resources
Programming, PL-450
Jose Luis Aramayo, Technical Evaluator, Agricultural Development
Programming, PL-450
Carmen Miranda, Sub-Director, Beni Biological Station
Alfredo Vaca, Administrator, Beni Biological Station
Nino Vaca, Chief, Park Guards, Beni Biological Station
Nelson Vaca, Biologist (student), BBS
Don Victor, Farmer, El Porvenir
Hermes Justiniano, Executive Director, FAN
Hugo Sales, Project Official, FAN
Walter Landivar, Director, Forestry Development Center, Santa
Cruz
Sergio Suarez, Chief, Project SEGMA/BID
Gonzalo Peña, Technical Assistant, Conservation and Management
of Amporo Park Project, SEGMA/BID
Halo Cabruja, Chief of Protection, Amporo Park
Julio Ocaña, Consultant, SEGMA/BID
Martin Gallardo, General Manager, PERTT
Victor Hugo Gonzales, Chief, Extension and Training, PERTT
Don Carmelo, Vice President, Conservation Committee, Sella de
Quebrada
Don Victorio, Secretary, Conservation Committee, Sella de
Quebrada
Nursery work group, Sella de Quebrada (20 members)
Doña Nellie, President, Women's Club, Sella de Quebrada
Women's Club, Sella de Quebrada (25 members)
Reynaldo Aparicio, Farmer, Candelaria
Humbal Aparicio, Farmer, Candelaria
Jose Luis Rios, Forestry Project Manager, DESEC
Senobio Aguilar, Head of Zapata Rancho nursery and reforestation
Farmers, Puyuwasi Reforestation (4)
Farmers, Chucuchani Reforestation (86)
Juan Carlos Quiroga, General Manager, CUMAT
Carlos Arce, former Executive Director, LIDEMA
Marisol Quiroga, CIEC
Anna Maria Terceros, Accountant, CIEC



Av. Mcal. Santa Cruz Edif. Hansa Piso 20
Telfs. 372200 - 372201 - 390000 - 371262
Casilla 7953 - Fax 390809
La Paz - Bolivia

La Paz, agosto 30 de 1991
P.L. 480 D.T. No. 478/91

Señor
Hermes Justiniano
Director Ejecutivo
FUNDACION AMIGOS DE LA NATURALEZA
Santa Cruz

Señor Director:

Ref.: Recepción de Proyectos y Sugerencias.

Acusamos recibo de los proyectos referentes a la Reserva de Vida Silvestre Ríos Blanco y Negro, al Parque Nacional Amboró y al Curso de Biología de Conservación. Al respecto de cada proyecto, nos permitimos comunicarle las siguientes observaciones y sugerencias:

1. Reserva de Vida Silvestre Ríos Blanco y Negro:
"Prioridades de Conservación, Potencial de Uso Sostenible de Recursos y Desarrollo de Plan de Manejo".

Con referencia a los aspectos técnicos, nuestras observaciones son las siguientes:

- En relación a la metodología descrita, ésta debe ser más completa y detallada respecto a las técnicas que se utilizarán, especificando cuáles serán éstas, de cuántos sondeos constarán, en qué zonas específicas, etc. Deberá acompañar un plan de trabajo cronogramado para cada estudio.
- La investigación antropológica/sociológica, deberá tomar en cuenta con más profundidad, las características socio-económicas de las comunidades involucradas.

- El potencial económico y de desarrollo, no tendría que estar relacionado solamente a la explotación forestal y al potencial para ecoturismo, sino también se deben ir buscando alternativas de cultivos agrícolas y crianzas de animales alternativas para el desarrollo de comunidades o núcleos poblacionales en la Reserva y en sus inmediaciones, para efecto de la implementación de un eventual Programa de Extensión en el Plan de Manejo.
- Se debe explicar cuáles serán los temas que componen el Plan de Manejo, en relación a los diferentes programas preliminares que lo constituyan.
- Justificar las razones por las que los profesionales y estudiantes participantes del proyecto, trabajarán únicamente medio tiempo.
- Si los diferentes profesionales que vayan a participar en el proyecto, pertenecen a instituciones como Wildlife Conservation International, Conservación Internacional, New York Botanical Garden y Missouri Botanical Garden, los salarios para aquellos, así como sus pasajes aéreos, viáticos y equipo de campo e investigación deberían ser considerados como fondos de contraparte de aquellas instituciones.

En relación a los aspectos administrativos, tenemos las observaciones siguientes:

- Respecto a los vuelos comerciales dentro del ámbito nacional, se deberá detallar el número, lugares, número de personas y objeto de los viajes.
- Se tiene que especificar cuántos vuelos de avioneta, rutas, y montos/hora de cada uno, también el objeto de los mismos.
- Para la publicación del reporte final o plan de manejo, se deberá especificar el tipo de impresión, si contendrá fotografías, mapas, número de páginas aproximado, etc.
- Se debe desglosar el ítem de Costos Administrativos.

2. Parque Nacional Amboró. Proyecto Complementario

En relación al proyecto de protección de la zona sur del Parque Nacional Amboró, en el programa de extensión se debería prever la implementación de parcelas demostrativas de agricultura alternativa, además de criaderos de ciertas especies animales silvestres para fines de autoconsumo (lo que reduciría el índice de caza de poblaciones aledañas), y según su factibilidad, dirigirlos al comercio posteriormente.

El proyecto no prevé visitas de científicos y turistas a esta zona del PNA, por lo que sugerimos tomar en cuenta este punto para el diseño de campamentos, acompañando su respectiva justificación.

La construcción de campamentos requiere de información detallada en la ingeniería del proyecto, diseño y justificación de la ubicación de campamentos, planos y costos.

Respecto a las operaciones, se indica que muchos rubros presupuestados cuentan con un financiamiento parcial del Programa Parques en Peligro, sin embargo no se especifican los montos de ese financiamiento; solicitamos también los documentos de compromiso de ese financiamiento.

En lo que al presupuesto se refiere, le comunicamos que para proyectos de esta naturaleza, se deben extender contratos contemplando únicamente aguinaldos y no así beneficios sociales ni provisiones, en razón de que el tiempo de participación del personal es reducido. Le hacemos notar también que los montos respecto a Servicios Personales son altos. Se deberá desglosar y justificar el punto de "Costos Administrativos".

3. Curso de Biología de Conservación

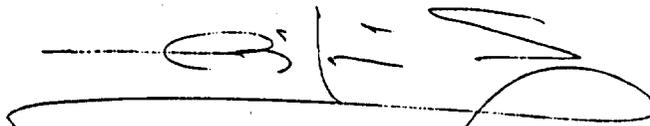
El proyecto tiene objetivos interesantes, sin embargo, no presenta un plan de trabajo detallado, que especifique cuáles los temas de biología que

se desarrollarán en las clases teóricas, cuáles las técnicas de investigación que se emplearán en las experiencias de campo, explicar mejor el objetivo y el impacto que tendrá la "discusión en mesa redonda", y cuáles los temas en que se podrán insertar los proyectos grupales.

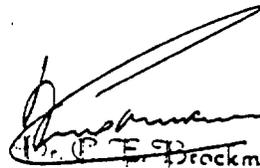
Es necesario detallar en qué consistirá el equipo de campamento que se solicita y aquel que será contraparte de la U.A.G.R.M., de la misma forma detallar el equipo de investigación.

Respecto al presupuesto, los honorarios para los instructores argentinos, deben ajustarse a niveles racionales, teniendo en cuenta que se pagarán pasajes y viáticos. Consideramos que la organización y coordinación del curso sea responsabilidad de una sola persona.

Con este motivo, saludamos a usted atentamente,



Eric Luis Jordan S.
Gerente Técnico
P.L. 480



W. P. Frankmann
SECRETARIO EJECUTIVO
P.L. 480 TITULO III

Appendix 5

Letter of Understanding Format

1. Intervening Parts
2. Background
3. Objective- typically says "establish conditions by which ___ receives financial resources for the implementation of project ___."
4. Conditions
 - 4.1. Amount financed is __, as detailed in ...
 - 4.2. First disbursement is __, subsequent disbursements when 70% is spent..
 - 4.3. Secretariat will transfer directly to checking account.
5. Reports, Supervision, Evaluation
 - 5.1. Reports- _ is obliged to present __ technical reports.
 - 5.2. Supv/Eval- ___ will facilitate maximum collaboration...
6. Contractual Obligations
 - 6.1. _ will assume proper utilization of resources
 - 6.2. No patronal relationship exists between ...
 - 6.3. ___ promises to maintain accounting documents for three years after the conclusion...
7. Annexing Documents

Approved budget and accounting instructions.
[Sometimes work plan is referred to here]
8. Failure to Follow Norms

Failure to follow norms will permit cancellation
9. Amendments
10. Acceptation

[signed by Exec. Secretary and Representative of participating institution]

Appendix 6 Summary Sheet of PI-480 Projects Between 1985 and Present

Code	PROJECT	Implement. Agency	Date	Amount \$	Est \$ (National Currency)	Status
I. INSTITUTIONAL SUPPORT						
pre-1988	CUMAT Operations	CUMAT	FY 86 FY 87	897.0 807.0		Concluded
16-01-01	Inst. Support to Coordination Unit	LIDEMA	8/87-2/90	116.2		Concluded
16-01-02	Inst. Support to LIDEMA members	LIDEMA	9/87-9/88	17.9		Concluded
16-01-04	Beni Biological Station Mgmt Plan	LIDEMA/ BBS	1/88	61.4		Active
16-01-11	BBS Operating Funds	LIDEMA	8/89		450.0 176.5	Active
16-07-00	CUMAT (Land Use Capac.) Operations	CUMAT	12/88-4/90	204.0	578.8 192.9	Concluded
16-19-00	Institutional Strengthening	LIDEMA	5/90		122.6 40.9	Concluded
16-23-00	Institutional Strengthening	CUMAT	9/90		15.0 5.0	Concluded
01-01-01	LIDEMA Institutional Support	LIDEMA	4/91		247.6 70.7	Active
01-01-03	External Evaluation LIDEMA	not start	4/91		175.0 50.0	Active
SUB-TOTAL 10 PROJECTS				2,013.5 2,849.5	536.0	
			Ave/Proj	255.0		
II. EDUCATION, TRAINING, PROMOTION						
16-01-06	Biological Station Workshop	Smithson.	7/88	28.9		Concluded
16-01-09	Educational Material Production for Radio	CIED*	7/89		34.2 13.4	Concl
16-01-10	Field course wildlands ordering Workshop		7/89		33.4 13.1	Concl
16-01-13	Educational AV programs in conservations	MNNH*	10/89		9.2 3.6	Concl

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16-09-00	Social Developm. and Env. Impact Seminar	LIDEMA	5/89-8/89	38.2	14.2	Concl
16-13-00	Conservation awareness extension for students (PERTT)		11/89	38.9	14.5	Concl
16-14-00	Urgent-Bolivia TV Series	SOMCSX	4/90	365.0	121.7	concl
16-15-00	SNAP Seminars & Coordination	LIDEMA	5/90	23.1	7.7	Active
16-16-00	Courses and Scholarships Program	CIEDA	5/90	177.5	59.1	Active
16-17-00	Documentaries and TV Spots	LIDEMA	5/90	30.9	10.3	Concl.
16-18-00	LIDEMA Bulletin	LIDEMA	5/90	15.9	5.5	Concl.
16-22-00	TV Program- The Country We Are Losing	LIDEMA	5/90	2.9	1.0	Concl.
01-01-02	LIDEMA Scholarship program	LIDEMA	4/91	55.0	15.7	Active
01-01-04	Tropical Ecology & Vegetation Course		8/91	36.6	10.5	Active
01-01-05	Write/publish Bolivian Tree Guide	LIDEMA	8/91	210.0	60.0	Active
SUB-TOTAL 16 PROJECTS				28.9	350.0	
				378.9		
				Ave/Proj	23.7	

III. TECHNICAL STUDIES

16-01-05	Integrated Diagnosis La Paz NR	Ecology Inst.*	10/87	20.9		Concl.
16-01-14	Manuripi-Heath Nat'l Reserve phase I	LIDEMA	7/89	13.2	5.2	concl.
16-02-00	Environmental Law #1	LIDEMA ENR Commis.	5/87	33.9		Concl
16-03-00	National Environmental Profile	LIDEMA	6-9/87	25.0		Concl.
16-08-00	Rural population census, Amburo Park	FAN	4/89	22.6	8.9	Concl.
16-12-00	EIS, Rio Maniqui	CDC	9/89-3/90	97.1	38.1	Concl

	CEESI	-----	-----
SUB-TOTAL 5 PROJECTS		79.8	52.1
		131.9	
	Ave/Proj	22.0	
IV. FIELD ACTIVITIES			
Pre-87 DESED Forestry	FY86	585.0	Concl.
16-04-00	10/87	100.5	Concl.
16-05-00 PERTT watershed Mgmt, Rio Guadalupe	11/87	159.1	Concl.
16-06-00 Forest Recolonization, Ituri-Abia	9/88	16.2	Concl.
16-11-00 Infrastructure construction, NKM NP	8/89	36.9	14.5 Concl.
SUB-TOTAL 4 PROJECTS		870.8	14.5
		885.3	
	Ave/Proj	221.3	
TOTAL 36 PROJECTS		2993.0	952.6
		3945.6	
	Ave/Proj	109.6	

Appendix 6 SHORT PROJECT DESCRIPTIONS

CODE	APPROPRIATION	START-UP DATE	IMPLEMENTING INSTITUTION(S)	STATUS
------	---------------	---------------	-----------------------------	--------

SECTION I. INSTITUTIONAL SUPPORT

1. LIDEMA INSTITUTIONAL SUPPORT

16-01-01	\$ 54.1	6/87	LIDEMA	Concluded
	\$ 62.2	6/88		

	\$ 116.2			
	B 54.2	2/89		
	B 247.5	6/89		
	B 199.5	5/90		

	B 501.3			
16-19-00	B 122.6	5/90		
01-01-01	B 247.6	4/91		

LIDEMA (the League for the Defense of the Environment) is an umbrella institution formed to represent the interests of a group of 11 PVO's, NGO's, and OG's. LIDEMA is a major receiver of PL-480 TIII (and TI) funds, both in the support of itself (presented here) and in the administration of funds for member institutions (presented individually on continuation). Funding under institutional support is primarily used to pay the salaries of the Assembly General, which consists of an Executive Director, Heads of Technical, Administrative, and Communication Units, a Secretary, Messenger, and Driver. LIDEMA is analyzed more closely in the text, Section V.

2. INSTITUTIONAL SUPPORT TO LIDEMA MEMBERS

16-01-02	\$ 16.0	9/87	LIDEMA	Concluded
	1.3	10/87		
	0.6	9/88		

	17.9			

These funds were used to purchase office supplies and equipment for the 11 LIDEMA member institutions.

3. BENI BIOLOGICAL STATION MANAGEMENT PLAN

16-01-04 \$ 61.4 1/88 LIDEMA/BBS Active

These funds were used to finance the preparation of a management plan for the Beni Biological Station. The plan was recently completed. For a more complete description of ES activities with the Beni Biological Station, refer to Section V.

4. BENI BIOLOGICAL STATION OPERATING FUNDS

16-01-11 B 450.0 8/89 LIDEMA/BBS Active

These funds were placed in a bank account as an endowment to finance operating expenses at the Beni Biological Station. The monthly interest generated on the original deposit is utilized to finance personnel, both in La Paz and at El Porvenir, near the Station entrance. For a more complete description of ES activities with the Beni Biological Station, refer to Section V.

5. CUMAT OPERATIONS

16-07-00 \$ 204.6 12/88 CUMAT Concluded

B 137.2 1/90

B 441.6 4/90

578.8

CUMAT (Most Appropriate Land Use, or Capacidad de Uso Mayor de la Tierra) is an NGO with the specialty of land use capability studies. They have an office in La Paz equipped with a digitizer, blueprint machine, field measuring equipment, etc. Current staff is 15 persons and they have three active projects.

CUMAT has received PL-480 funds under Title I since before 1985. CUMAT prepared a total of 15 technical studies with the Title I and Title III funds between 1985 and the present. The distribution of the individual studies is the following:

- 9 Lands Classification studies
- 4 Environmental Impact studies
- 1 Agricultural Land Evaluation
- 1 Baseline data study

Because funds were channeled to operating expenses, some projects received both TI and TIII funding. Annual budgets with PL-480 have ranged between \$117,000 and 200,000, with contracts

between \$9,000 and 332,000. Those contracts have been on large projects of between 30 and 600 million dollars.

CUMAT has complained directly to USAID/B about the ineffectiveness of the PL-480 assistance. Funding from the annual agreements with PL-480 arrived up to seven months late, the salary structure was not compatible with the kind of agreements they made with project financiers, and there were never any evaluations performed.

The problems arising from the CUMAT-PL480 relationship culminated at the conclusion of the last agreement. CUMAT would like to maintain a direct relationship with USAID/B in the future.

6. INFRASTRUCTURE CONSTRUCTION, NKM NP

16-11-00 B 36.9 8/89 CERCONA concluded

These funds were used to construct three camps to serve as part of the infrastructure of this remote national park. The camps will serve as quarters and offices for park staff, and have been completed and outfitted.

7. EXTERNAL EVALUATION LIDEMA

01-01-03 B 175.0 4/91 Independent Active
Consultant

These funds will be used to hire external consultants to evaluate LIDEMA's functioning as an organization. In the opinion of the ES, LIDEMA has lost its ability to coordinate activities, becoming instead a victim of its most powerful members. Additionally, the ES has complained about the ability of LIDEMA to support itself financially, after five years of outside support. These evaluation will consist of three persons, one assigned to evaluate the internal structure, one to evaluate the relation of LIDEMA with external institutions, and one to evaluate the LIDEMA's resource administration.

Institutional evaluations are the appropriate response to the analysis made by the ES. A periodic examination of an institution's role is a healthy exercise. One must question, however, just how much power such an umbrella institution has over voluntary members, especially if the Committee members are at the same time representatives of their own institutions, with differing strategies, philosophies, and organizational niches.

The Forestry Support Program, Room 1208-RPE, USDA Forest Service, PO Box 2417, Washington, DC 20013 maintains a roster of individuals with experience in developing countries

which may be available for consulting jobs. They can be a source of potential evaluators for this job. The ES should contact the FSP and have them make a roster search for specialists in environmental organizations.

It is suggested that one of the activities of the evaluation be the development of a sustainability strategy for LIDEMA.

II. EDUCATION, TRAINING, & PROMOTION

8. BIOLOGICAL STATION WORKSHOP (BIOLAT)

16-01-06 B 28.9 7/88 Smithsonian/BBS Concluded

An ecology workshop was held for 20 biology students at the BBS. The Smithsonian contributed to the workshop design and funding.

9. EDUCATIONAL MATERIAL PRODUCTION FOR RADIO

16-01-09 B 34.2 7/89 CIEC/LIDEMA Concluded

A series of 20 environmental promotion programs for radio were developed and given to 29 radio stations and seven institutions throughout the country. Funds for broadcast time were not foreseen and the stations which picked up the material were thus small with limited audience.

10. FIELD COURSE FOR WILDLANDS TERRITORIAL ORDERING (BIOLAT)

16-01-10 B 33.2 7/89 Ecol.Inst./LIDEMA Concluded

A workshop on the above theme held at EBB. An additional similar workshop was held under a different project code in 1990.

11. EDUCATIONAL AV PROGRAMS IN CONSERVATION

16-01-13 B 9.2 10/89 National Museum
Natural History Concluded

Eight audio-visual programs with conservation themes

were prepared by the NMNH, consisting of a photographs and a soundtrack together on a video tape. The programs were presented to two schools per week to an average of 150 students per school. A complete projection was also made to a young scientists congress.

12. SOCIAL DEVELOPMENT AND THE ENVIRONMENT SEMINAR

16-09-00	B	1.8 34.3	5/89 8/89	CIEC/LIDEMA	Concluded
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A seminar for 78 representatives of the news media was held in Buena Vista, SC in June 1990 to analyze the relationship between social attitudes and the environment. The participating journalists agreed to take into account those attitudes in their reporting. LIDEMA later published a memorial Population, Environment, and Communication, which synthesized the expositions, conclusions, and the 17 recommendations of the seminar.

13. CONSERVATION AWARENESS EXTENSION

16-13-00	B	36.9	11/89	PERTT	concluded
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A program to introduce conservation themes in Tarija public schools. PL-480 funds were used to purchase a series of audio-visual equipment such as a video projector, Betamax, television, etc. FAO provided technical support to the preparation of themes, and PERTT provided operational support.

14. URGENT-BOLIVIA TV SERIES

16-14-00	B	365.0	4/90	SOMOS (Comunica- cion Social y Publicidad)	Concluded
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12 half-hour video documentaries with environmental themes were produced and broadcast on Channel 7 through 22 stations throughout the country. In a letter to the ES after the completion of the series, SOMOS indicated that the series from all indications was a success in capturing the national public and also institutional interest. Positive comments were received by TV stations and press critics. 91 announcements were made about the series in 4 different newspapers, for an average of 2/newspaper/week. A telephone poll (n=270) found the following:

- 22.6% were not familiar with the series
- 4.0% did not see but heard about
- 37.5% saw some of the series
- 35.9% saw all of the series

Of those that had seen all or part of the series (n=198):

35.4% qualified it as very good
56.6% qualified it as good
7.1% qualified it as fair
1.0% qualified it as bad

Apart from its positive reception from the public, the SOMOS project demonstrates the utility of impact monitoring which should be required in the projects of this type. SOMOS used the positive responses to justify a proposal to produce another 24 documentaries. This was accepted by the ES and will be funded under TI.

15. COURSES AND SCHOLARSHIPS PROGRAM

16-16-00 B 177.3 5/90 CIEC active

This project has as its objective to raise rural communities' levels of knowledge about environmental themes. The project was initiated when PL-480 asked CIEC to design an environmental education project.

The project bases its work in 12 rural schools in 8 departments. Two professors from each school were brought together for a workshop on general environmental themes. Next, regional workshops were held to by those teachers and CIEC personnel to teach a diagnostic methodology. An average of 30 persons, among them teachers, students, and local community members, attended each of those 12 workshops. A diagnostic survey was then carried out by community members.

The surveys are now being used to plan agricultural and forestry technical workshops which focus specifically on the problems diagnosed and the development of alternative technical solutions. CIEC has seen the need to program small community projects to implement the proposed solutions. They are also developing educational materials such as a basic agricultural manual, a forestry manual, a livestock management folder, and posters. Finally, an evaluative workshop is planned to re-unite the selected teachers and discuss results.

CIEC had some complaints on the turn around time between turning in their receipts and receiving the following disbursement. They turned in receipts on the 26th of June to receive a new disbursement in October, three months later. This caused CIEC much difficulty in project operations. By the time the new disbursement was received the institution had so many expenses pending that the money was used up right away!

PL-480 had indicated to CIEC that they had too much work to process to do to process their receipts. The CIEC accountant

thought that fixed periods for processing receipts (certain period every three months, for example) would probably work better.

16. DOCUMENTARIES AND TV SPOTS

16-17-00 B 30.9 5/90 Mr. Baird concluded
Straughton

Mr. Baird Straughton, an American living in Bolivia, originally proposed with this project to produce 23-minute weekly TV documentaries on environmental depredation. The original proposal was scaled back to 6 documentaries which were transmitted. A followup was declined to place emphasis on the successful SOMOS series.

17. LIDEMA BULLETIN

16-18-00 B 15.9 5/90 LIDEMA concluded

The LIDEMA Bulletin has as its objective to inform its readers what activities LIDEMA members are doing with the environment. Six quarterly issues of 1000 bulletins were prepared and distributed. Each issue was 8 pages of text complemented by b/w photos and draawings. The LIDEMA bulletin was mostly news on its member institutions, complemented by some technical articles on the environment.

18. VIDEO- THE COUNTRY WE ARE LOSING

16-22-00 B 2.9 6/90 concluded

This 23 minute video was produced as a pilot program, and distributed to varios institutions, including MACA. A follow-up proposal for a 24 week series was rejected by the ES in order to focus attention on the SOMOS project.

19. LIDEMA SCHOLARSHIP PROGRAM

01-01-02 B 55.0 4/91 LIDEMA active

The scholarship program aimed at providing support to students in theses preparation in environmental sciences. Theses proposals were requested nationwide and selected by LIDEMA (PL-480 later became involved in theses review as well). Scholarships have been awarded as follows:

1989: 5 scholarships
1990: 9 scholarships
1991: 10 scholarships programmed (8 accepted to date)

20. HABITAT PUBLICATION

01-11-01 B 15.2 4/91 LIDEMA Active

Continuation after revision of project 16-18-00. Five issues of 1500 bi-monthly publications called Habitat were to be published by LIDEMA.

21. TROPICAL ECOLOGY AND VEGETATION COURSE

01-01-04 B 36.6 8/91 Amazon Cooperative active
Treaty/EBB

This project is field training in ecology by altitudinal floors given by international consultants for 25 professionals and upper-level students at the Beni BS. A summary document with 11 scientific articles will be published as a result of the course.

22. WRITE/PUBLISH BOLIVIAN TREE GUIDE

01-01-05 B 210.0 8/91 3 Nat'l Herbariums active
(LP, SC, Cocha.)

This project will fund the salaries of researchers during the preparation of a national guide to the tree species of Bolivia. A dendrology course will be held to establish criteria for the guide. Later the guide will be published and there is funding set aside for the establishment of arboretums within the participating herbariums.

III. TECHNICAL STUDIES

23. INTEGRATED DIAGNOSIS LA PAZ NR

16-01-05 \$ 20.9 10/87 Ecology Inst./
LIDEMA concl.

This project consisted of a diagnosis of the natural resources in the La Paz department, and the subsequent development of a book.

The project was plagued by numerous delays. The project deadline was postponed seven times by the ES at the request of LIDEMA and the EI. A draft version was rejected by the ES technical advisor at one point for being incomplete. A final printing was delayed by the printer at one point such that the ES decided to end the project, and asked for the reintegration of its funds, halting all fiscal assistance to LIDEMA until this was resolved. An accompanying video was also returned to EI for poor technical quality, later to be improved.

After many letters exchanged, etc., the deadline was extended one final time. In February 1991, a book called Natural History of Flora-Fauna in La Paz was published by the Ecology Institute. The document is 544 pages long with color photos, extensive species listings, and contributions of 20 authors.

24. MANURUPI-HEATH NATIONAL RESERVE, PH. 1

16-01-14 \$ 20.9 10/87 LIDEMA concluded

This funding was used to prepare a proposal for a project to re-structure the M-H National Reserve. The project proposal was later accepted by the ES, and funded under Title I.

25. ENVIRONMENTAL LAW #1

16-02-00 \$ 33.9 5/87 LIDEMA, E/NR concluded
Commission of the
Chamber of Deputies

These funds were used to elaborate supporting documents in the development of an environmental law. This first law was elaborated as planned but rejected by the Bolivian Congress. The ES tried again with a revised project funded by Title I. This law was to be proposed to the new Congress in 1991. I was verbally told that this law was accepted.

This General Environmental Law, as it is called, has as an objective "the regulation of the man-environment relationship. It created the National Secretary for the Environment, who answers directly to the president.

A new Environmental Law project is also recently being implemented with Title I funds. This one is the first in a series of laws to regulate the use of individual resources under the GEL, in this case forest resources.

One cannot underestimate the impact of these laws, especially when they are followed up by projects to assure their implementation. The ES has contributed to this integration

(again with Title I funds) with a forest concession control project for Santa Cruz.

26. ENVIRONMENTAL PROFILE

16-03-00	\$	20.0	8/87		concluded
		5.0	9/87		

This funding was used to print an additional 2500 copies of an environmental profile for Bolivia originally published in June 1986 by USAID and IIDMA, an American consulting group. Interestingly, the projects done by PL-480 follow recommendations made in this profile in the section Institutional Development:

- 1) support institutional strengthening
- 2) elaborate EIS's in development projects
- 3) initiate consciousness raising
- 4) promote env. laws

27. RURAL POPULATION CENSUS, AMBORO PARK

16-08-00	\$	25.0	4/89	FAN	concluded
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Amboro NP was suffering from the invasions of colonists due to the immigration of the Chimoré-Yapacani highway. The census was designed to determine the # of families w/in the parks boundaries, and would be used in the development of a resettlement project in the future.

The full analysis presented in 12/89 met the objectives defined at the start of the census.

28. RIO MANIQUI EIS

16-12-00	B	57.4	9/89	CDC/CEEDI	concluded
		39.7	3/90		

		97.1			

A bridge over the Rio Maniqui will permit land travel between Trinidad and San Borja. CDC and CEEDI, two NGO's associated with LIDEMA, developed the EIS for the construction of the bridge, completing the project in 7 mos.

The study is very professional. It is a thorough treatment of the environmental effects of the bridge. There is a 12 page bibliography, a clear conclusion/recommendation section, color photos, and maps.

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29. SNAP SEMINARS AND COORDINATION

16-15-00 B 23.1 5/90 LIDEMA Active

This funding was used to coordinate planning activities for the creation of a National System of Protected Areas. A proposal was developed and presented to the National government where it is currently in revision.

30. NATIONAL ENVIRONMENTAL ACTION PLAN

B 682.8 7/91 FONAMA

The Bolivian Environmental Action Plan will design environmental policies and planning strategies at a national level. PL-480 will finance about 40% of the cost of developing the action plan, the rest being absorbed by Germany and a small portion by WRI. PL-480 funds will be used to contract planning experts, consultants, support personnel, to cover operating costs, purchase office equipment, and publish documents.

IV. FIELD PROJECTS

31. DESEC FORESTRY

16-04-00 \$ 100.5 10/87 DESEC concluded

The DESEC program is analyzed in detail in section V. The available records on activity completion from 1986 is the following:

	1000 seedlings produced		Reforest. Ha.		1000 seedlings planted		Parti. comun.		Partic. families	
	Plan	Act	Plan	Act	Plan	Act	Plan	Act	Plan	Act
Campaign 86-87		2350		680				202		585
Campaign 87-88		1150		300				84		585
Campaign 88-89	550	492	217	169		194	29	48	838	774
Campaign 89-90	373	364	197	200	236	248	30	35	1086	1048
Campaign 90-91		367	200	211		264		40		971
		----		---						
Total to date		4723		1560				est.202	est.	3000

Blanks where data not available. Participating communities and families are not summed because the majority of both participated in more than one year.

32. PERTT WATERSHED MANAGEMENT

16-05-00 \$ 169.1 11/87 PERTT concluded

This project consists of watershed management activities for a 29,500 ha. watershed in Tarija. The project is analyzed in detail in section V. A summary of activities completed with PL- 480 funding is presented as follows:

	planned	actual
Tree seedlings produced	unclear	560,000
Community centers built	4	4
Vehicles purchased	1	1
Aerial photo coverage (ha.)	29,500	29,500
LUC studies (ha.)	10,022	10,022
Reforestation (ha.)		220
Areas conserved (ha.)		80
Participating communities	19	14

33. FOREST REPOPULATION ILURI-ABID

16-06-00 B 16.2 9/88 CORDECO concluded

This project involved the reforestation of a small area in Cochabamba, and was implemented in cooperation with CORDECO and COTESU. The final tree planting was delayed by rain and completed in the March-June quarter, so there is a question as to the survival of the plantation. The activities targets realized by the project were:

	Plan	Actual
Ha. reforested:	50	74
Families particp.	150	186
Communities particp.		5
Fencing (m)	3000	6060
Improved road (m)		5000
Opened road (m)		600
estimate seedlings		85

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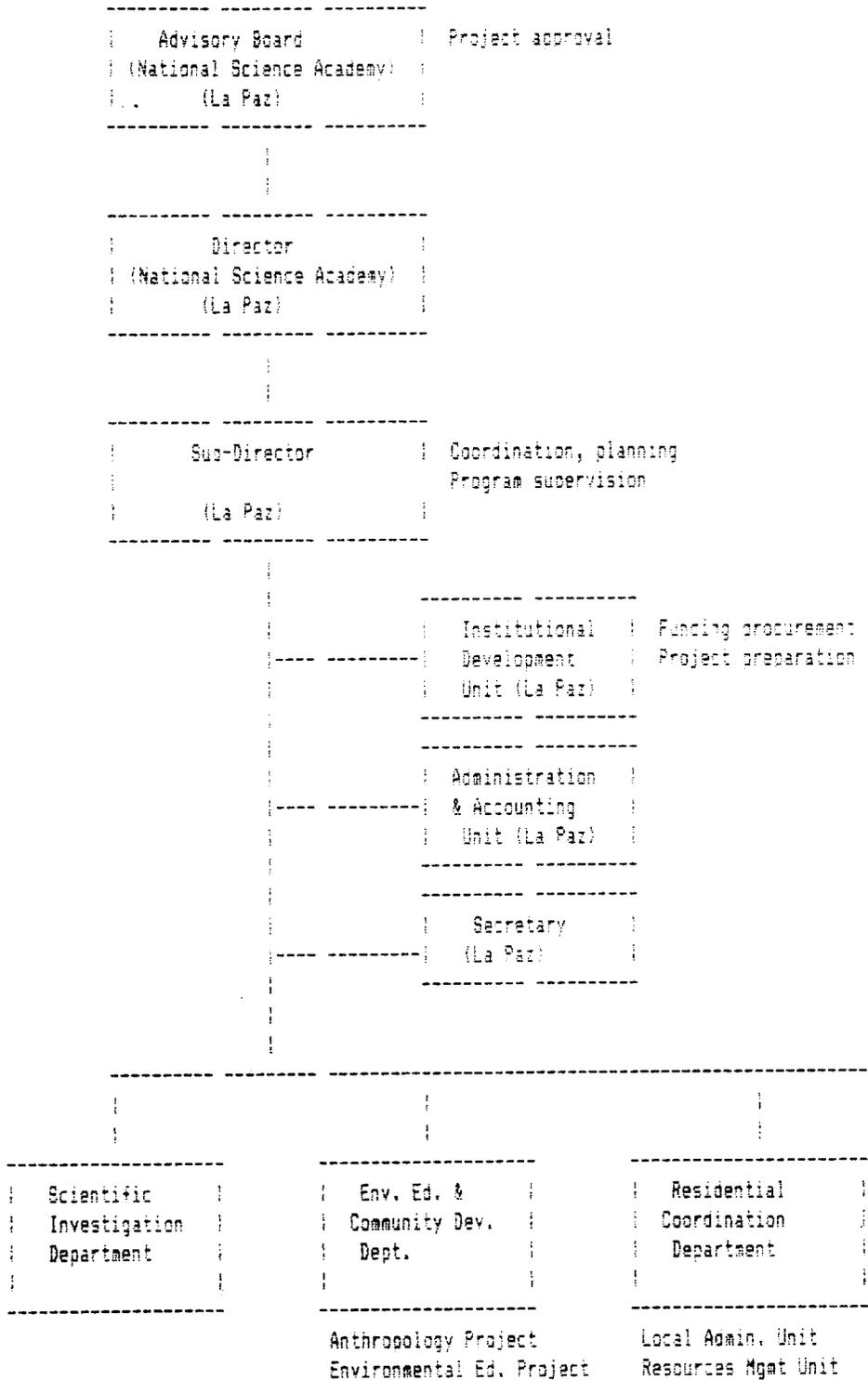
Appendix 8

SUMMARY OF DISBURSEMENTS IN LOCAL CURRENCY

July 1, 1986 to August 31, 1991
(-000 Bolivian pesos)

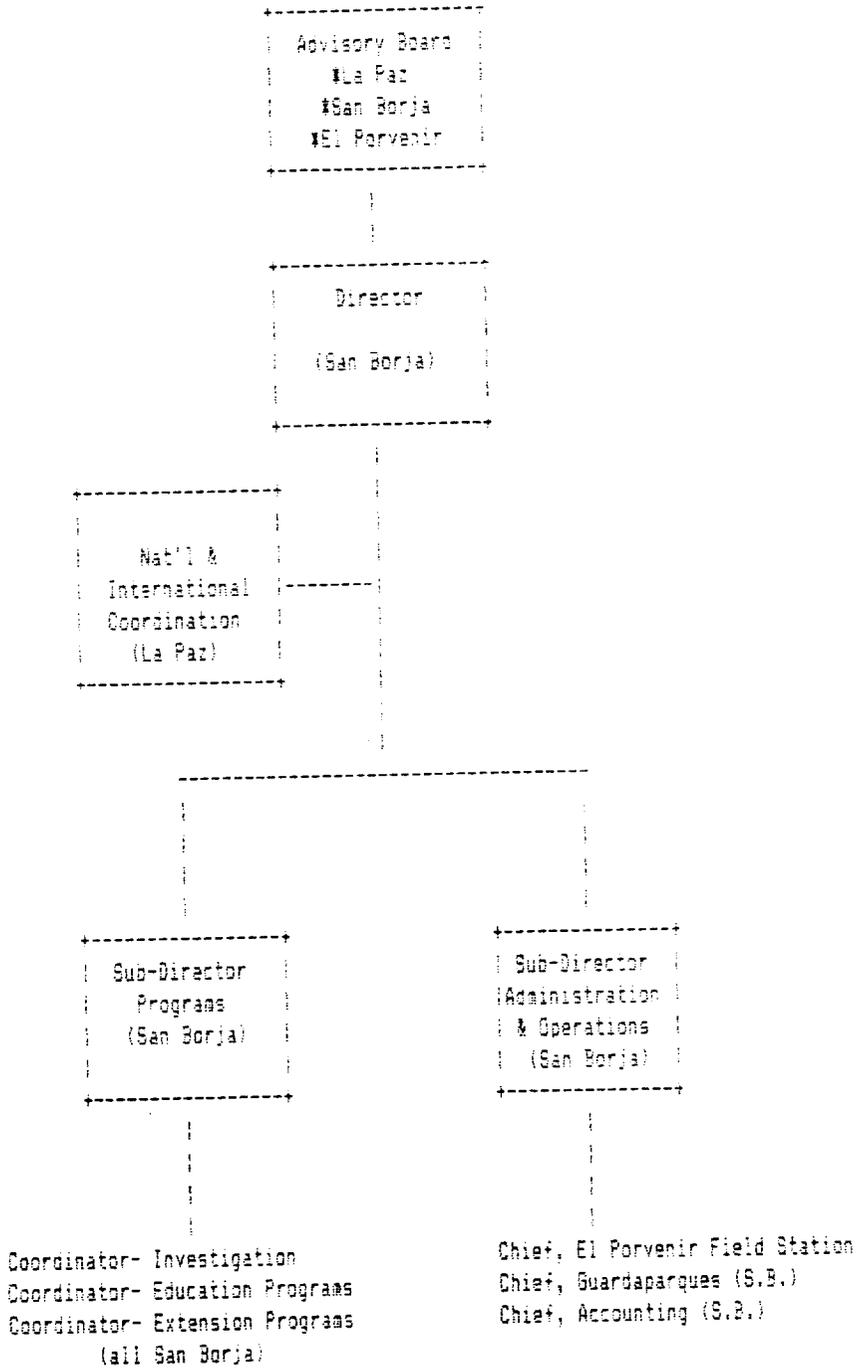
	Assigned	Disbursed	Pending	% Pending
TIII/86	4788.3	4132.8	655.5	13.7
TIII/90	724.1	276.1	448.0	61.9
Total	5512.4	4408.9	1103.5	20.0

CURRENT ORGANIZATIONAL CHART
 SENI BIOLOGICAL STATION



Appendix 9b.

Recommended Revised Organizational Chart



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Appendix 10 Elements of Project Design

1. Problem Statement

Identify geographical area of the project and discuss the specific problem(s) which it is designed to address, in terms of number of people affected and how they are affected. Describe causes of the problem and what, if anything, the government or other agencies are doing or plan to do about them. Discuss any needs assessments which have been undertaken, and present any pertinent statistics or research findings.

Example:

The _____ project completed a monitoring baseline study in four departments in October, 1990. An analysis of small landowner needs, available technology, and environmental patterns results in the following conditions for the subsistence farmer in the (region):

1) Food production is very unsure. For example, agricultural emergencies were declared in the _____ region on three separate occasions between 1980 and 1990, twice for drought and once for flooding.

2) Farmers are forced into counterproductive measures in producing fuel to cook food. While 81% of the families surveyed participated in fuelwood cutting, only 44% had access to enough fuelwood not to depend on alternative fuels. Alternatives to firewood include manure, which is more useful as fertilizer, and kerosene, which represents a significant cash expense for the farm family.

3) Building materials are scarce. Only 22% of the families in the survey had access to community forests. Of the farmers surveyed, 13% cut building wood over the past month, with an average production of 14 boards, while 18% of the families surveyed produced 8 units of handicrafts, tools, or furniture. While there exist alternatives to producing one's own building materials (purchase), they are basic needs which can easily be met through efficient natural resource utilization. These products also improve the quality of life for the rural family.

4) Income is very low. Poverty maps consistently rank _____ region as the poorest area of the country. Project departments include the lowest seven departments in a 1986 poverty ranking. Small farmers require income to buy basic goods such as medicine, schoolbooks, and clothing they can't produce. Of the heads of family surveyed, 87% relied exclusively on farming as a source of income. It is especially important for the "farming only" families to have diverse sources of income to hedge against crop failures and price fluctuation.

2. Final Goal

Final Goals are the improvements in some aspect of the lives of a defined group of participants which are expected to result from achievement of the Intermediate Goals. The Final Goal statement should identify the intended beneficiaries, the type of improvement anticipated, and when it will occur. Final Goals must be measurable though not necessarily measured as part of the project.

Examples of Final Goal statements:

By June 1996, 40,000 rural families of the sierra will increase production of food, fuel, and building materials in a sustainable manner.

By December 1996, 10,000 rural residents of the _____ area will improve incomes without damaging the established natural resources base.

3. Intermediate Goals

Intermediate goals describe the intended changes in systematic conditions or behavior that must be achieved in order to accomplish the Final Goal; that is, each I.G. is a necessary condition to achieving the F.G. If the IG's collectively will not be sufficient to achieve the FG, then the programmer should state what assumptions are being made about the missing ingredients. IG's should be stated in terms of the condition existing at a given future point of time within the life of project and expected to endure for a definite or indefinite period beyond. IG's should indicate whose practices will change and in which way, and when the anticipated change should occur (again, indicators should reflect the magnitude of change expected). IG achievement must be verified at some point in the implementation of the project, usually via formal evaluation.

Examples of Intermediate Goals:

By (date), 60% of the farmers in 1080 communities will have reduced crop failure risk by establishing protective agroforestry and soil conservation technologies on their agricultural land which will be continued after the phase-out of the project.

By (date), the project counterparts (give names) will have improved their ability to manage development projects.

By (date), 10,000 rural residents of the _____ area will improve their land management practices such that the pattern of resource depletion begins to reverse itself.

By (date), an active local natural resource based

infrastructure will exist at both regional and community levels that permits improved participation and control over local land management practices.

Note that indicators are necessary to define key terms such as "improved ability", "sustainable", "begins to reverse itself".

4. Indicators

Indicators are measures used to ascertain or verify that a postulated change has occurred, and thus that a certain goal (Final or Intermediate) has been achieved. An indicator, in itself, does not necessarily comprise the entire nature of the change effected but suggests that a change has occurred and quantifies an important aspect of it; several indicators may be needed to describe the various aspects of the change.

Baseline surveys may be necessary to determine the "status quo ante" vis-a-vis indicators so that future evaluations can measure the magnitude of change.

Examples:

By (date), the rate of abandonment of the rural area by current residents has dropped by 25%.

At least 10 hectares of agricultural land in each community are effectively protected from erosion by some form of soil conservation.

60% of the farmers in 1080 communities have incorporated agroforestry and soil conservation technologies in their agricultural land.

75% of the trees planted in agroforestry systems are alive two years after outplanting.

The rate of forest clearing for agriculture/pasture will have decreased by ___%.

50% of the rubber collectors in the project area will actively participate in a cooperative.

Castaña production within the project area will increase by 50%.

50% of the logging concessions in the project area will follow the rules established in a forest management plan for the concession.

Source: CARE-USA Programming Manual (examples JR-CARE-Peru, JR).

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