A REPORT ON THE NATIONAL COMMUNITY DEVELOPMENT SERVICE OF BOLIVIA

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INTRODUCTION

The proposed USAID loan to the NCDS for the development or improvement of small farmer organizations in Bolivia is fundamentally based on the establishment of a Revolving Credit Fund of roughly US$6.7 million to finance the construction of economic infrastructure projects, establish small rural productive enterprises, and support cooperative development activities. The purpose of this report is to appraise the institutional capability of the NCDS to implement such a credit program.

In our view, that capability is highly questionable at this time. The NCDS is currently experiencing a series of technical and administrative problems which, if neglected or left unresolved, will make it impossible for the institution to manage the proposed loan effectively. For this reason we have devoted the first and lengthiest section of this report to a description and analysis of these problems. Although we have specified our recommendations for alleviating them, we have done so rather tentatively, cognizant of the fact that adequate solutions must await further in-depth investigation, dialogue, and consultation between USAID, the NCDS, and the GOB.

Assuming that the problems cited in Section I can be solved effectively, Sections II and III of the report deal with various aspects of the proposed Revolving Credit Fund program of the NCDS. Section II deals with <u>internal</u> aspects, such as staff availability, project selection and promotion, training of staff and project participants, sub-lending proceedures, use of female change agents, and project evaluation. Section III addresses the implications of NCDS staff participation/coordination with other USAID-financed programs in the rural sector.

Because much of the content of this report is devoted to describing weaknesses in the NCDS program, we believe it is appropriate to address at the outset some of the strengths of the Service. For this is an institution with significant past accomplishments and future potential. After surveying fourteen rural development programs in Latin America—in Paraguay, Bolivia, Perú, Ecuador, Colombia, and Mexico[1]—we consider the NCDS one of the most effective and successful.

Strengths of the NCDS

The Service claims to have worked in over 3,000 rural communities throughout Bolivia.[2] If so, no other government agency in Bolivia can claim broader program coverage among the nation's farmers. More important, the NCDS is generally well-known and trusted by the rural population. In support of this assertion we cite four critical indicators. First, the NCDS mobilizes some 65 percent of all project costs, on the average, from the residents of rural communities assisted. Second, substantial cash contributions are mobilized in advance of project construction activities. Third, there is a high project repeat rate—i.e., the large number of communities which, after completing an initial project with NCDS assistance, request a second, third, or a fourth project. Fourth, the NCDS receives far more project requests than it can answer. For example, in the regional office of Patacamaya, 47 project requests—which can not be attended for lack of NCDS grant resources—have been received in the first four months of 1975. Some of these requests have been accompanied by large community cash contributions which had to be refused or refunded.

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1 See Mickelwait, Morss, Sweet, and Hatch, Strategies for Small Farmer Development: An Empirical Study of Rural Development Projects in the Third World, Technical Assistance Bureau, AID, Washington D.C., May 1975. This report contains 36 case studies of rural development projects in Africa and Latin America.

2 The exact number is not yet available since the NCDS community file card system, in disuse since 1973, is only now in the process of up-dating.

The Service measures its own impact by statistics on projects completed or under construction. But these figures fail to do justice to the full range and outcome of NCDS activity. They do not measure many dozens of projects created by demonstration effect. A case in point are sheep dips in the Altiplano. Although the NCDS has only assisted in the construction of perhaps a dozen sheep dips in this region, it is estimated that some 200 additional structures have been built by private community initiative. Nor do NCDS statistics measure agricultural and livestock extension activities. Often in cases of livestock epidemics or insect plagues, campesinos request technical assistance from NCDS agronomists rather than from the Bolivian Agricultural Extension Service. Nor is the work of the NCDS female extensionists reflected in conventional statistics.

Nonetheless, the institution's primary performance indicators —projects completed and under construction—are impressive enough to stand by themselves. In the last five years (1970-4) the NCDS has completed 808 projects, including 384 schools, 160 rural clinics, 96 agricultural and livestock projects, and 168 "engineering" undertakings—such as potable water systems, roads, and irrigation structures.

This level of accomplishment would be impossible in the absence of close working relationships and two-way communications between NCDS technicians and the residents of rural communities assisted. By far the most important feature which distinguishes the NCDS from other government agencies is the fact that no less than one-quarter of all NCDS personnel are Quechua or Aymará-speaking para-technical change agents. Most are indigenous residents of the rural communities, trained by the Service to fulfill promotional and supervisory functions in the countryside. In five training centers the NCDS has, until recently, trained more than 1000 rural men and women per year. A fraction of these are hired by the Service, the remainder prepared for voluntary leadership activities in their home communities.

Finally, we should mention that we have encountered within NCDS senior staff and field personnel an attitude of candid introspection and self-criticism about the institution's deficiencies. As outside consultants, our verbal suggestions have been eagerly solicited. In our data collection efforts we have received complete cooperation at all times and unfettered access to administrative, accounting, personnel, and other sensitive documents. But beyond encouraging outside evaluation, the NCDS has taken diligent steps of its own to diagnose its performance liabilities. In March-April of this year, the Service undertook a comprehensive Diagnostico to identify problems in on-going community projects. A partial summation of the results of this inquiry constitutes the departure point for this report.

In sum, the NCDS has achieved broad coverage and significant socio-economic impact in the Bolivian countryside. It is the one government institution with best access to, understanding of, and communications with small farmers. It is self-critical and responsive to change. It is possibly the only program in Bolivia with the potential capability to organize and finance income-generating projects among small farmers on a national scale.

I. TECHNICAL AND ADMINISTRATIVE PROBLEMS

A. An Overview: The NCDS "Diagnostico"[1]

A total of 226 community projects were evaluated in the NCDS Diagnostico, of which 143 (63 percent) represented social infrastructure projects and 83 (37 percent) economic infrastructure.

The Diagnostico reveals some evidence of technical ineptitude on the part of the NCDS. Technical or planning errors were acknowledged in 23 projects (10 percent), and in 4 cases these errors resulted in the paralysis of project construction. Far more significantly, the Diagnostico describes an alarming breakdown in the NCDS "delivery system"—i.e., serious problems with the institution's ability to provide required materials, machinery, technical supervision, and project bookkeeping controls. One project out of every five was described as "paralyzed" (48 projects in all), and in 22 cases the cause can be attributed to an NCDS delivery system failure. Across all projects surveyed, problems of inadequate technical assistance or supervision were cited in 102 cases (45 percent); delays in NCDS deliveries of materials, equipment, or other contributions were cited in 92 cases (41 percent); lack of adequate project record-keeping was cited in 46 cases (20 percent); and failure to meet commitments on promised Food for Peace donations was cited in 35 cases (15 percent). In contrast, community-related problems were mentioned with far less frequency in the Diagnostico. The above relationships are listed in greater detail in Table 1.

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1 The figures cited on this page and in Table 1 are the result of calculations by the authors. Although data-collection for the Diagnostico had been completed by the NCDS before this report was begun, no analysis or statistical measures on this data had been attempted by NCDS staff.

TABLE 1: TABULATION OF PROBLEMS CITED IN NCDS DIAGNOSTICO

Categories	Total	Percent.
Projects Surveyed		
Social infrastructure	143	63.3
Economic infrastructure	83	36.7
TOTAL	226	100.0
Paralyzed Projects		
Social infrastructure	28	58.3
Economic infrastructure	20	41.6
TOTAL	48	100.0
Causes of Project Paralysis		
Rainy season/planting season	21	43.7
Lack of NCDS deliveries of materials, etc.	16	33.3
Technical errors	4	08.3
Lack of technical supervision	2	04.1
Lack of community cash contribution	7	14.6
Community disorganization	5	10.4
Lack of community interest	2	04.1
TOTAL	57	
Problems with NCDS: All Projects		
Lack/delay NCDS deliveries of materials, etc.	92	40.7
Inadequate technical assistance/supervision	102	45.1
-Irregular supervision	85	
-Technical or planning errors	23	
Lack of Food for Peace deliveries	35	15.5
Inadequate project record keeping	50	22.1
TOTAL	387	
Problems with Community: All Projects		
Community disorganization	25	11.0
Minimum resident participation/lack of interest	27	12.0
Local administrative irregularities	10	04.0
Inadequate community contributions	17	07.5
TOTAL	79	

B. Shallowness of Technical Expertise

A professional degree is no guarantee of competence. On the other hand, degrees are commonly seen as more reliable indicators of expertise th . on-the-job experience. In terms of professional degrees, the expertise of NCDS technical staff must be considered extremely shallow. A survey of NCDS personnel qualifications conducted by the authors with Mr. Felix Fernandez, Jefe Dept. Técnico, yielded the following conclusions:

1. The NCDS does not have a single professional degree holder among its field staff, neither at the regional or zonal office level. Although some have up to 4 years of post-secondary training, they have failed to complete thesis requirements.
2. Regional and zonal office heads show relatively low levels of professional preparation. Out of 16, 4 are maestros rurales, 2 constructores civiles, 3 agronomos, 1 topógrafo, 1 tecnico mecánico, and 5 with no post-secondary training whatsoever.
3. The above were appointed without reference to uniform professional selection criteria. None have been required to take qualifying examinations.

The scarcity of technical expertise in the field offices is compensated for in two ways. First, the central office has published manuals for the design of certain standardized structures such as schools and health posts. Second, all non-conventional project plans developed at the regional or zonal office levels must be approved by the Technical Department of the central office. Technical amendments to plans submitted from the field are frequent, resulting in the return of many project requests for revision of budget and technical specifications at the local level. Such amendments create considerable delays in project execution and, on occasions, have resulted in the paralysis of the projects themselves.

The problem of shallow technical expertise throughout NCDS field operations is, in the first instance, the result of inadequate

salary levels. Given its budget constraints, the NCDS simply does not pay enough to attract qualified professionals. Worse still, the NCDS does not pay enough to keep even many sub-professionals. Once they have acquired some on-the-job experience, many are able to qualify for better-paying employment elsewhere in the public sector or in private industry.

C. High Personnel Turn-Over

If on-the-job experience is to substitute for professional degree training, it is imperative that staff continuity be maintained. Such continuity is conspicuously absent in the NCDS. The causes are twofold: (1) a prohibitively high rate of personnel resignation, combined with (2) an excess of personnel transfers of assignment.

1. Personnel Resignations: The Personnel Division of the NCDS keeps a register of all employee resignations entitled Cartas de Agradecimientos de Servicio. In 1974, out of a total of some 420 employees, there were 275 voluntary and/or compulsory resignations, which represents a 65 percent turn-over rate. At least 42 resignations were the result of a policy decision to eliminate the field position of TDCs. Table 2 gives a break-out of resignations by principal categories of field staff:

TABLE 2: RESIGNATIONS OF NCDS FIELD STAFF IN 1974

Position	Total	Resigned	Percent Resigned
Jefe Regional	8	3	37
Jefe Zonal	8	5	62
Ing. Regional	9	7	78
Constructor Civil (Of.Proyectos)	26	12	46
Agente Cooperativas	18	6	33
Agente Credito Agropecuario	14	2	14
Esp. Bienestar Social	27	22	81
Asistente Administrativo	10	4	40
Chofer	29	25	86
Supervisor de Area	89	40	45
Auxiliar Bienestar Social	29	23	79
Training Center Director	5	3	60
Training Center Instructors	20	23	115

The above figures paint a dismal picture of an institution whose activities are crippled in at least four different areas. First, its administrative continuity is handicapped by the instability of regional and zonal office heads as well as administrative assistants. Inadequate project record keeping is undoubtedly the direct result of this instability. Second, given the loss of regional engineers, civil contractors, and area supervisors, the NCDS can not provide adequate technical assistance in project construction nor effectively supervise construction activities by the community. In this regard it bears mentioning that a project blueprint which is correct and feasible in an engineering sense is absolutely worthless unless the plan can be implemented explicitly. Third, unable to keep its training center instructors and directors, the NCDS training capability—for its own staff as well as rural men and women—must be considered virtually nil. As of this writing, training activities of the NCDS are at a standstill, and no training center has given a course in the last seven months (since November 1974). Fourth, because of the instability of its especialistas and auxiliares, the NCDS program with rural women per se is non-existant, a non-program. At best, it consists of a bundle of disparate, uncoordinated, ephemeral, and superficial activities devoid of any overall strategy or coherent goals. But finally, consider the turn-over in NCDS chofers. Instability in this staff category is particularly acute because only the chofers are permitted to drive NCDS vehicles. The resignation of one chofer can immobilize a half dozen or more NCDS technicians.

It is important to mention that very few resignations of NCDS personnel can be considered "disciplinary actions". Our review of personnel records revealed that in 1974 only 13 resignations were due to disciplinary reasons, of which 10 were the result of "abandonment of post". A random inspection of personnel files showed that many if not most NCDS employees have received multiple reprimands (llamadas de atención) for unsatisfactory service, but rarely is a staff member fired. When we inquired as to the reasons

for such leniency we were told that it is very difficult, given current salary levels, to fill staff vacancies, and if left unfilled for more than a month the NCDS stands to lose the budget asignations or items for those positions. The attitude of the Personnel Office seems clear: It is preferable to keep a poor employee than to fire him, attempt to recruit a replacement, and run the risk of losing his item. Needless to say, the policy is counterproductive. There is perhaps no faster way to undermine discipline within the institution than to insist that poor job performance is not a sufficient criteria for dismissal. But secondly, preserving staff to keep budget allocations from shrinking leads to a worse evil: juggling staff from one assignment to another to protect items.

2. Transfers of Assignment: All assignment transfers by NCDS employees are recorded by the Personnel Office in a register called Cambios de Asignación. During 1974, 114 NCDS staff members—or 28 percent—were transfered. If the number of transfers is added to the number of resignations, the level of personnel instability within the NCDS reaches 391 or 93 percent. Table 3 gives a break-out of transfers by principal categories of field staff:

TABLE 3: ASSIGNMENT TRANSFERS OF NCDS FIELD STAFF IN 1974

Position	Total Positions	No. Transf.	Percent Transf.
Ing. Regional	9	3	33
Constructor Civil (Of.Proyectos)	26	5	19
Agente Cooperativas	18	8	44
Agente Credito Agropecuario	14	3	21
Esp. Bienestar Social	27	4	15
Chofer	29	1	03
Supervisor de Area	89	31	35
Auxiliar Bienestar Social	29	45	160
Training Center Instructor	20	5	20

During our field visits to the regional offices we heard a variety of complaints relating to transfer of assignment. First, we were told that many site transfers are ordered by the central office

without prior consultation with the staff member involved. This problem occurs most frequently with lowest-level field personnel such as auxiliares and supervisores de area. As one auxiliar complained, "we are pushed around like pawns on a chessboard". Indeed, another auxiliar interviewed had been transfered—without consultation—to three different posts within the space of 45 days.

Second, with distressing frequency, many assignment transfers are self-defeating. A typical case is the assignment of a Quechua-speaker to an Aymará area and viceversa. In other cases, the transfer of one individual often results in the transfer of another to replace him, thereby multiplying the negative consequences of personnel transfers from one office to another.

Third, in the case of supervisores and auxiliares, their salaries simply do not permit them to transfer out of their home districts without considerable economic sacrifice. Theoretically, the salary level of a supervisor or auxiliar was initially determined on the assumption that he or she would live and work in their home district; hence, they would not need travel or living expenses and could thereby get by on a modest salary. Once required to work outside their home district, however, these para-technicians face sharp increases in cash outlays—for work-related travel, pension, and lodging. Nonetheless, when transfered away from his home district, the NCDS requires its campesino change agents to pay their own transportation to new sites; moreover, they receive no increase in salary once they get there.

These problems cannot be dismissed lightly. The very effectiveness of the NCDS—the key to its impressive accomplishments to date—rests upon the use of rural, indigenous men and women as para-technical change agents. They are the communications channel linking the NCDS to small farmers. They are the eyes and ears of the Service. They carry the brunt of project promotion and supervision activities. These individuals are not expendable. If they

indeed are pawns on a chessboard, let it be remembered that most games of chess are won by the player who sacrifices the least number of pawns. The continued hemmorage of campesino staff resignations--which may be considered a direct result of irrational transfer policy—is nothing short of disasterous. Immediate action is required to replenish their numbers, improve their remuneration, reduce transfers to a minimum, and expand their logistical support.

But passing beyond these para-technicians to NCDS field staff in general, assignment transfers of anybody represent one of the best ways to waste already scarce human resources. Other things being equal, it may take a new staff member 6 months to a year to adjust to an assignment, gain the confidence of the local communities with which he works, and acquire the experience necessary to effectively perform his job functions. A site transfer requires this process to be initiated all over again.

D. Breakdowns in the Delivery of NCDS Materials and Other Assistance

The causes of delivery system breakdown are many and diverse. A few are uncontrolable—like inclement weather and monetary devaluations. However, the most important and frequent causes may be considered both controlable and unnecessary—the result of administrative ineptitude.

1. Delays in Processing Project-Related Documentation: By the estimate of one zonal and two regional office heads, the average delay for a project request to be approved by the central office is two months. From then until the first disbursement of materials requires, on the average, a wait of two additional months. Unfortunately, in this four-month period the prices of budgeted project materials are likely to change; and if inflation is serious enough, a new project budget must be drawn up. Instability of field personnel compound these problems. Between the time a project request is submitted and materials for its construc-

tion authorized, it is quite possible the technician responsible for the project's design will have resigned or been transfered. His replacement is more likely to sponsor entirely new project initiatives—i.e., "his own projects"—than carry through first with those begun by his predecessor.

Once project construction has begun, a new series of processing requirements arise. The field offices of the NCDS must submit to the central office a full accounting of local purchases of materials and skilled labor services (receipts, contracts, etc.). Typically, complete documentation regarding a first disbursement must be received in La Paz before subsequent disbursements are authorized. Two separate offices must pass judgement on the adequacy of the documentation received, the Accounting Office (to control for value of expenditures) and the Project Control Office (to control for physical quantities of materials and labor invested in project construction). Both offices currently work independently one from the other. The latter conducts its review first, and even when documentation is approved it may be delayed for weeks before passing into the hands of the Accounting Office. If not approved, documents may be returned to the field offices for modification or additional justification, thereby creating further delays that can last weeks and months. When finally approved by both NCDS Project Control and Accounting Offices, project documentation is further reviewed by the USAID Accounting Office, which also reserves the right to return documents to the field for revision. The average delay between submission and approval of project documents between the NCDS and USAID accounting offices is 43 days.[1]

While the accountants of both institutions engage en periodic recrimination, few recommendations to expedite document flow have been made that reach the heart of the problem: namely, profes-

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1 Based on a review of rendición de cuentas between NCDS and USAID between August 14, 1974 and January 8, 1975.

sional incompetency. Once again, because of low salary levels, NCDS does not have a single professional business manager (with degree) at the central office level. At the field offices, the large majority of administrative assistants—who are paid barely more than chofers—have no post-secondary business training and have little, if any, knowledge of accounting or management practices. Yet it is the responsibility of such individuals to maintain an efficient project control documentation. These same individuals will be expected, in the future, to assist agricultural cooperatives in bookkeeping and accounting functions on a one-day-per-week basis. Both expectations are ludicrous, given the skill level of most asistentes at the present time.

2. NCDS Warehouse Operations: Getting approval for the first disbursement of materials is frequently only the first of many problems to be faced by community project construction committees. At least in the regions of Altiplano and Yungas, the community comités must pick up their supplies in La Paz from the NCDS Division of Compras y Suministros. Here the procurement and delivery of project materials is reported to be not only slow and inefficient, but arbitrary and irrational as well. A school project in Oruro received desks as its first materials disbursement; windows and roofing on the second; and cement on the third. A project in Pacajes had previously specified it needed 6 gallons of blue paint; in La Paz the comité was forced to accept 4 gallons of pink and 2 gallons of yellow. A comité from Caranavi went to La Paz to pick up cement and lumber (even though the latter abounds in Caranavi); its members were obliged to wait a week in the capital at their own expense, and finally returned to Caranavi empty-handed. Examples such as these are endless, for one out of every two NCDS projects have experienced major problems—according to the Diagnostico—in procuring supplies and equipment from the Service.

The tragedy is that most of these problems are the result of self-imposed liabilities created by the NCDS. The head of the NCDS Warehouse Division is a retired military officer with no management training. Aside from the man, the post itself is considered of very low status within the hierarchy of central office divisions. The Jefe of Compras y Suministros earns a mere US$150 per month, whereas the salary of all other division heads averages US$232. Moreover, since 1969 a tailor-made set of warehouse management recommendations have been made available by Arthur Young Consultants, but none have been implemented. To do so requires a management professional, contracted with a salary at least four times that earned by the current Division head.

3. Vehicle Maintenence and Repair: The NCDS currently owns a fleet of 41 vehicles, including 23 pick-ups, 12 jeeps, 4 carry-alls, 1 dump truck, and 1 cargo truck. In heavy equipment it operates 2 bulldozers, 1 frontal loader, 2 sheepsfoot rollers, 1 cistern truck, and assorted 3 and 4-inch pumps. The responsibility for maintenence and repair of these items rests with the Transport Division of the NCDS central office. Interviews with field office staff reflected a high level of dissatisfaction with current vehicle servicing. On the average, each field office vehicle is out of service between 4 and 5 days per month due to repairs. In Oruro one of the regional office's three vehicles had been undergoing repair in La Paz for three months. The only vehicle at the Muyurina Training Center had experienced a similar fate. In fact, as of April 1974 only 18 of the NCDS's vehicles (44 percent) were listed in running order; the remainder were undergoing repair (16) or listed in bad operating condition (7).[1] Such figures do not suggest an acceptable performance in maintence

1 According to an inventory conducted by Don Jorge Belmont, Asistant to the NCDS Administrator.

and repair by the NCDS Transport Division, especially if one considers the fact that two-thirds of the vehicle fleet is represented by models less than three years old. Of course, the cause is not difficult to find. As in the Warehouse Division, the Transport Division suffers from false budgetary economies and low salaries. Its head is the lowest-paid division chief in the Service, earning a mere $135 per month. It is reported he has no professional training in automobile or heavy equipment repair, that the inventory of tools and repair equipment is inferior to that of any commercial garage in La Paz, and that the Division's budget for spare parts acquisition is inadequate to finance the most rudimentary stocks.

Into this setting the proposed loan plans to introduce some US$600,000 worth of light and heavy equipment. To do so with no provision for up-grading maintenence and repair facilities in the Transport Division, and without recruiting competent mechanics with experience in commercial garage management or heavy equipment maintenence, is in our judgement an act of irresponsible extravagance.

4. Breakdowns in Food for Peace Deliveries: Food for Peace has a definite role to play in NCDS project promotion. It has proved an effective incentive in getting communities organized for a first self-help project (although its use thereafter can be counter-productive). Nonetheless, in many FFP-sponsored projects, the offer of foodstuffs has not materialized in actual deliveries. In some 25 FFP-sponsored projects undertaken in Oruro, for example, the supplies never arrived; in consequence, no community thus "cheated" has requested further assistance from the NCDS. Part of the problem apparently lies in the policy that FFP supplies, while free, must be transported to the recipient community at the latter's expense. This is an acceptable arrangement for communities located only a few hours from La Paz; for more distant communities the cost of transport may make the FFP assistance too expensive to accept. In any event, misunder-

standings as to who must pay for transport has resulted in frequent delivery breakdowns. The communities often expect NCDS to deliver the foodstuffs to the project site; the staff of the Service waits for the communities to request and transport the supplies. Given high personnel turn-over, such misunderstandings are likely to continue, with the result that the NCDS may needlessly squander any rapport it has established in many rural communities.

E. Other Administrative Problems

If staff is to show dedication, work extra hours on evenings and weekends, spend weeks and even months away from their families, and put up with other hardships related to the job of rural community development, such staff deserves not only adequate compensation, but adequate administrative and logistical support. They should not have to meet gasoline expenses out-of-pocket for work-related travel due to shortages of petty cash; nor should they have to purchase office supplies, repair typewriters, or spare parts for the office vehicle at their own expense. They should not receive their salaries two months late, nor have to travel to La Paz—also at their own expense—to receive their salary check in person. But this is precisely what field staff of the NCDS is expected to do. Administratively, field staff are considered second-class citizens. Central office staff, in contrast, are better-paid, are paid on time, and receive ample per-diems when traveling outside of La Paz. These inconsistencies need to be resolved, for as long as they persist they create additional pressures for field staff resignations.

F. Recommendations

1. SALARY CONTRACTS TO RECRUIT QUALIFIED PROFESSIONALS AND SUB-PROFESSIONALS FOR SELECTED MANAGERIAL POSITIONS WITHIN THE N.C.D.S. CENTRAL OFFICE

On a non-civil service, performance contract basis, qualified Bolivians or third country nationals would be recruited for the following positions. Contracts to be granted by competitive selection (concurso) wherein candidates must meet specified qualifications, show written proof of work experience or academic degrees, and take a written examination. Contracts would be for a minimum of 2 years, at or near salary levels indicated below.

Specification of contract requirements for each position, determination of selection criteria and salary scales, and recruitment of candidates would be supervised by an independent management consulting firm, grant-funded by USAID. Contract financing would be the responsibility of the GOB, and should be made a prerequisite for loan disbursement.

Position	Current Salary $b	Contract Salary $b	Increase $b
Jefe, Dpt. Administ.	6,200	10,000	3,800
Jefe, Div. Contabilidad	4,600	8,000	3,400
Jefe, Div. Control Proy.	4,500	8,000	3,500
Jefe, Div. Comp. y Sum.	3,000	8,000	5,000
Jefe, Div. Transportes	2,700	6,000	3,300
TOTAL PER MO.	21,000	40,000	19,000
ANNUAL COST (14 MO.)	294,000	560,000	266,000
EQUIVALENT US$	14,700	28,000	13,300

F. Recommendations (Continued)

2. SALARY CONTRACTS TO RECRUIT QUALIFIED PROFESSIONALS AND SUB-PROFESSIONALS FOR SELECTED TECHNICAL AND MANAGERIAL POSITIONS WITHIN THE FIELD OPERATIONS OF THE N.C.D.S.

The NCDS proposes to decentralize its field operations by reducing its regional offices from 8 to 4, and expanding its zonal offices from 8 to 18 (In total, this represents an increase in field offices from 16 to 22). The four regional offices are to have considerable technical/ administrative autonomy. To make such autonomy possible will require a substantial up-grading in technical and managerial expertise in the regional offices, and significant improvement in management skills in the zonal offices.

We propose that all Asistentes Administrativos be replaced by contracted management professionals, i.e., by Administradores or Contadores at the regional office level, and by Contadores Jr. at the zonal office level. We further propose that each of the four regional offices recruit a technical staff of no less than three professionals, including an Ing. Civil, Ing. Agrónomo, and Economista. All the above positions would be recruited on a performance contract basis, as in Recommendation No.1.

Position	Current[1] Salary $b	Contract Salary $b	Increase $b
REGIONAL OFFICES (FOR EACH OF 4 OFFICES)			
Ing. Civil	5,000	10,000	5,000
Ing. Agronomo	5,000	10,000	5,000
Economista	5,000	10,000	5,000
Administrador	2,000	8,000	6,000
PER OFFICE PER MO.	17,000	38,000	21,000
ALL OFFICES PER MO.	68,000	152,000	84,000
ANNUAL COST (14 MO.)	952,000	2,128,000	1,176,000
EQUIVALENT US$	47,600	106,400	58,800

1 Current salary of first three positions based on those of highest paid technical staff in central office; that of Administrador based on average salary of Asistentes Administrativos presently employed in regional offices.

F. Recommendations

2. SALARY CONTRACTS (Continued)

Position	Current Salary $b	Contract Salary $b	Increase $b
ZONAL OFFICES (FOR EACH OF 18 OFFICES)			
Contador Jr.	2,000	4,000	2,000
PER OFFICE PER MO.	2,000	4,000	2,000
ALL OFFICES PER MO.	36,000	72,000	36,000
ANNUAL COST(14 MO.)	504,000	1,008,000	504,000
EQUIVALENT US$	25,200	50,400	25,200

3. SALARY CONTRACTS TO RECRUIT QUALIFIED BUSINESS MANAGERS FOR EACH OF THE FOUR N.C.D.S. PRODUCTION AND TRAINING CENTERS

Under the new NCDS decentralization plan, there will be one training center in each of the four regions. It is proposed that these centers be transformed into income-generating productive enterprises, capable of self-financing part or all training activities. To achieve this objective, each center would require a business manager. In addition to his administrative duties, this individual would teach business management courses to center students. For the rationale and further details on this proposal, see Section II-D: TRAINING. The four business manager positions would be recruited on a performance contract basis, as in Recommendation No.1

Position	Current Salary $b	Contract Salary $b	Increase $b
TRAINING AND PRODUCTION CENTERS (FOR EACH OF 4 CENTERS)			
Administrador	-	6,000	6,000
PER CENTER PER MO.	-	6,000	6,000
ALL CENTERS PER MO.	-	24,000	24,000
ANNUAL COST (14 MO.)	-	336,000	336,000
EQUIVALENT US$	-	16,800	16,800

F. Recommendations (Continued)

4. PAYMENT OF A PERMANENCE-IN-SERVICE BONUS

For all NCDS personnel a 5 percent per annum increase in their total remuneration for every year of service completed with the NCDS, beginning January 1 of their first year of employment. This would be payable as a bono de continuidad. It is suggested that USAID finance the cost of this bonus through 1975 for all NCDS field staff (including training center personnel), while the GOB finance the bonus for all central office staff. Beginning in January 1976 the GOB would finance all future bonus increments.

The recommendation is predicated on the rationale that those staff members who have remained longest with the NCDS tend to be the most highly motivated and the most experienced; they represent human resources that are too valuable to lose; and they deserve recognition for their past dedication. The cost of financing all field staff positions, for one year, is estimated below:

Position	Av.Annual[1] Salary US$	Bonus per yr. US$	No. of Positions	Total Bonus Payments US$
Jefe Reg./Zonal	2,900	145	16	2,320
Ing. Regional	2,800	140	9	1,260
Construct.Civil	1,800	90	26	2,340
Agente Cooperat.	1,800	90	18	1,620
Agente Cred.Ag.	1,800	90	14	1,260
Esp.B.S.M.C.	1,540	77	27	2,079
Asist.Admin.	1,400	70	10	700
Chofer	1,275	64	29	1,856
Supervisor Area	952	48	89	4,272
Aux.B.S.M.C.	672	34	29	986
Training CT.Dir.	1,800	90	5	450
Training Ct.Ins.	1,540	77	20	1,540
				20,674

Given the high personnel turn-over rate among NCDS field staff, it is unlikely the total retroactive bonus payment would exceed US$30,000.

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1 Annual salary = 14 months, including benefits.

F. Recommendations

5. PAYMENT OF A SALARY SUPPLEMENT FOR PARA-TECHNICIANS ASSIGNED AWAY FROM HOME DISTRICT

Any Auxiliar or Supervisor de Area would be paid a monthly supplement of $b 500 to cover job-related living and travel expenses while on assignment beyond their home district. The supplement would be paid as a bono de campo, pending submission of employee's written report of monthly activities. It would be financed by the GOB. Assuming 15 non-resident para-technicians (12% of total 118), cost per year of bono de campo would be $b 90,000 or US$ 4,500.

6. INITIATION OF RESTRICTIONS ON PERSONNEL TRANSFERS

The NCDS office desiring a personnel transfer would be required to consult the staff member involved before the transfer order is given. The transfer order must be approved by the NCDS Director, and backed up by a written report demonstrating reasonable cause and justification for the transfer. Transfer for purposes of preserving items would not be considered reasonable cause. Nor would vague reasons such as "for the good of the Service" or "to improve employee performance" be accepted. Finally, in all cases of transfer the NCDS would be required to pay in advance all transportation costs of the employee to his new assignment, plus his per-diem during an initial 15 day period. Any employee strongly opposed to a proposed transfer would have the right to a personal appeal with the NCDS Director.

7. INTEGRATION OF THE FUNCTIONS OF PROJECT CONTROL WITH PROJECT ACCOUNTING

We propose that the Office of Project Control and Statistics be reorganized, that the functions of Project Control be organized as a division of the Department of Administration and to be coordinated closely with the Accounting Division. Moreover, the sequence of document review must be reversed, such that Accounting reviews project documents first, and Control, second.

Meanwhile, the Statistics section of Project Control would be reorganized as a separate department with the title of "Coordinación y Estadistica".

F. Recommendations (Continued)

8. ACQUISITION OF A MINI-COMPUTER FOR THE N.C.D.S.

This idea has been bandied around between NCDS and USAID for months. We believe that given management up-grading actions recommended above, the time is right to complement management efforts with efficient and low-cost data processing equipment.

9. ESTABLISHMENT OF A TROUBLE-SHOOTING AGENT FUNCTION AT THE CENTRAL OFFICE TO SERVE N.C.D.S. CLIENTS

There should be an office within the NCDS en La Paz where small farmers, community representatives, members of construction comités and others can come to voice their complaints or problems relating to NCDS project activities. Such an office would be an adjunct to the Oficina Nacional de Operaciones. Its job would be to direct clients to those staff members who are in the best position to assist them, provide general laison and brokerage services for clients, and otherwise "expedite" solutions of their needs viz a viz the institution. Such an office, in our opinion, might help to forestall or alleviate many NCDS delivery system breakdowns.

10. INITIATE A DETAILED STUDY OF N.C.D.S. REQUIREMENTS TO PROVIDE AN EFFICIENT VEHICLE MAINTENANCE AND REPAIR CAPABILITY

The proposed decentralization of NCDS field operations is intended to increase technical and administrative autonomy. In keeping with these objectives, vehicle maintence and repair services also require decentralization. We propose a study be undertaken to determine (1) the costs of establishing four separate NCDS service centers in Oruro, La Paz, Cochabamba, and Sucre; (2) the costs of allowing each regional or zonal office to assume independent responsibility for the maintenence and repair of its vehicles, using private commercial garages; (3) the costsof equipping all NCDS vehicles (and/or chofers) with tool kits complete enough to permit a wide variety of local repairs; (4) the costs of creating an adequate inventory of spare parts for maintaining the NCDS vehicle fleet over a 3-year period; and (5) other aspects relevant to improving NCDS maintenence and repair efficiency.

Based on the recommendations of the study, USAID should provide additional grant-funded assistance in support of investments in tools, spare parts inventories, and possibly garage repair facilities.

F. Recommendations (Continued)

11. AMENDMENTS IN FOOD FOR PEACE PROCEDURES

We recommend that the NCDS should pay for the transport of FFP supplies to the regional offices and/or provincial capitals; that the communities receiving supplies be required to pay any additional transport costs to move the supplies to the project site.

Since FFP use can create more problems than they solve, it is important that new NCDS staff receive detailed instruction in how to explain FFP requirements to recipient communities. We recommend that FFP be used only in two types of projects: (1) in first projects, especially those requiring unusually heavy labor commitments by the community, such as roads; and (2) in community training programs, cursillos, etc.

12. IMPROVEMENT IN SALARY PAYMENT PROCEDURES

We recommend all NCDS personnel receive salary payment at or near the same time. The best way to assure this outcome is to put all payroll processing on the same system. Central office staff payrolls are processed at this time by IBM, La Paz; field staff payrolls by the traditional and extremely inefficient GOB Treasury system. We urge USAID to insist, as a prerequisite for loan disbursement, that all NCDS staff payrolls be processed by IBM.

Secondly, field staff in the Yungas and Altiplano regions should not be required to travel to La Paz to pick up their paychecks. Many man/days of staff time are wasted this way each month. Rather, the NCDS, by way of a bonded paymaster or Pagador, should deliver the paychecks of all field staff to the Administrador of each regional office. In turn, the Contador Jr. or Administrative Assistant of each zonal office should be entrusted with picking up the entire payroll for his office and making payment locally. At the very least, field staff should not have to travel farther than their regional office to collect their salaries.

13. INCREASED PETTY CASH FUNDS FOR FIELD OFFICES, AND GREATER FLEXIBILITY IN FUND USE

Petty cash funds in regional and zonal offices have been drastically reduced or eliminated in recent months. The

F. Recommendations

13. PETTY CASH (Continued)

zonal office of Caranavi formerly received $150; today it receives nothing. Gasoline for the office vehicle is now paid-for by the office staff out-of-pocket. The regional office of Oruro, which formerly received $250 per month in petty cash must now get by with $136, of which all but $61 is for office rent. It is assumed that such problems are the result of temporary forced economies in the NCDS operating budget due to its present 1975 deficit.[1] Nonetheless, such economies provide an object lesson in how easy it is to paralyze an institution for want of adequate petty cash funds.

We recommend that USAID sponsor a study of the operating cost requirements of the regional and local offices of NCDS, this for purposes of establishing reasonable levels and accounts for petty cash transactions. At the same time, guidelines need to be established which permit, but at the same time regulate, transfers of petty cash funds from one account to another without requiring central office authorization.

II. THE REVOLVING CREDIT FUND PROGRAM: CONSIDERATIONS EFFECTING DESIGN AND IMPLEMENTATION

A. Staff Requirements

The project IRR indicates that during the period of the proposed loan NCDS staff will increase from 460 to about 650. This increase would supposedly include 36 positions for cooperative development activities, 74 in the Rural Women Division, 40 in the Training Division, and 40 engineers or other professionals. In contrast, the NCDS program document entitled General Plan of Activities for the Period 1975-1978 mentions no staff increase. In fact, it explicitly states the Plan will be implemented with the present 458-member staff of the NCDS. Subsequent conversations with Sr. Willy Alliaga and other senior staff confirmed that no major expansion of personnel is contemplated in any division of the NCDS. If anything, the only anticipated staff changes consist in a reduction of Central Office employees and their redistribution to the regional and zonal offices.

Our investigations provide evidence that present levels of NCDS staff are greatly under-utilized. We therefore believe no personnel expansion of any kind is required, with the exception of selective up-grading of managerial and technical positions recommended in Section I. Moreover, we strongly endorse NCDS intentions to redistribute personnel from the Central Office to the field. After first documenting the extent of under-utilization of existing NCDS staff, we will present recommendations for redistributing available staff resources.

1. Under-utilization of Existing NCDS Personnel: How does one measure whether an institution has a staff surplus or a deficit? One way is to calculate the efficiency (cost or volume) of staff inputs relative to program outputs. In the case of NCDS we decided the most appropriate indicator at our disposal was man-months of staff time per project terminated. We calculated this indicator for the 8 regional offices of the NCDS during 1974. The results are given in Table 4:

TABLE 4: MAN-MONTHS OF STAFF TIME PER PROJECT TERMINATED IN 8 N.C.D.S. REGIONAL OFFICES—1974

Office	Proj. Term.	Total Staff	Total Man-Mos.	Man-Mos. Per Proj.
Patacamaya	40	26	312	7.8
Potosí	22	18	216	9.8
Oruro	28	23	276	9.9
Sucre	22	21	252	11.5
Huarina	29	28	336	11.6
Tarija	16	18	216	13.5
Santa Cruz	14	16	192	13.7
Cochabamba	21	35	420	20.0
TOTAL	192	185	2,220	11.6

Man-months per project terminated ranged from a low of 7.8 in Patacamaya to a high of 20 in Cochabamba. For all projects and offices the average was 11.6 man-months. This figure means that if we add up all the time committed by each office's ENGINEERING STAFF (Jefe Regional, Ing. Regional, Constructor Civil); AGRONOMISTS (Agentes de Cooperativas o de Credito Agropecuario); FEMALE EXTENSIONISTS (Especialistas and Auxiliares de B.S.M.C.); SUPERVISORES DE AREA; and SUPPORT STAFF (Chofers, Asistentes Administrativos), then the total man-months of everyone averages 11.6 man-months per project. However, since not all staff members participate directly in project construction—e.g., the agronomists, female extensionists, and support staff—it is necessary to know the distribution of man-months by staff categories. This is done in Table 5:

TABLE 5: DISTRIBUTION OF STAFF RESOURCES PER PROJECT TERMINATED IN 8 N.C.D.S. REGIONAL OFFICES—1974

Office	Total Staff	Engi-neers	Agron.	Sup. Area	Esn.& Aux.	Support Staff
Patacamaya	26	5	2	10	6	3
Potosí	18	5	2	5	3	3
Oruro	23	4	3	8	5	3
Sucre	21	5	2	6	5	3
Huarina	28	4	3	12	6	3
Tarija	18	4	2	6	3	3
Santa Cruz	16	3	2	3	5	3
Cochabamba	35	6	4	9	8	8
Total Staff	185	36	20	59	41	29
Man-months per year	2220	432	240	708	492	348
Man-months per proj.	11.6	2.3	1.2	3.7	2.6	1.8

Even if only the man-months of engineering staff and area supervisors are considered, the result is still 6 man-months per completed project. This should be more than sufficient —given a low rate of staff turn-over—to provide extremely close supervision to <u>any</u> project. Let us assume each man-month is only 20 days. Thus, 3.7 man-months of area supervisors equals 74 days per project, enough to permit an average of one visit per week throughout the year. Similarly, the 2.3 man-months of engineering staff equals 46 days per project. If only one-quarter of this time was spent on project supervision, one visit per month would be possible.

Judging from the high incidence of project-level complaints about inadequate NCDS technical assistance and supervision, nothing anywhere near the attention envisaged above is actually ocurring. We have here striking evidence of exceptionally low staff productivity within NCDS field operations. Of course, there are many compelling reasons why such low productivity is

inevitable. (1) Due to the rainy season and frequent road wash-outs, the staff of many NCDS offices are prevented from traveling during up to 4 months a year. (2) When roads are passable, NCDS vehicles may be out of service several weeks per year undergoing repairs or maintenence. (3) Delays in project-related paperwork—approvals, materials disbursements, reinbursements, etc.—slow project completion schedules. (4) High staff turn-over destroys the continuity of technical supervision, further slowing project completion. (5) And finally, a staff poorly remunerated to begin with, and inadequately reimbursed for work-related expenses, and paid two-months late as well, has no incentive to improve its productivity.

Adding more fresh bodies to a working environment where productivity is low will only make the NCDS far more inefficient than it is at present. We recommend a more rational approach, not to mention a more economical one: create the conditions and incentives which make improved productivity possible. A number of suggestions along this line have been presented in Section I. We now wish to complement the earlier suggestions with a plan for redistributing existing NCDS staff between the Central Office and the field.

2. A Tentative Plan for Staff Resource Redistribution: The NCDS Central Office currently employs 74 technicians and a support staff of 53. We believe that if the NCDS is serious about decentralization, and will indeed be willing to reduce Central Office staff significantly, than it would be possible to transfer to the field at least 19 technicians and 21 support personnel. This would represent a 26 percent reduction in the former category and a 40 percent reduction in the latter. The required actions, and their rationale, are as follows:

ADMINISTRATIVE

a. Auditing Office: current staff is 3 auditors; recommend one remain in La Paz, and 2 be reassigned to regional offices; then hire 2 additional auditors so that each of four regional offices have its own auditor.

b. Personnel Office: current staff is 2 technicians, 7 support staff; recommend 1 technician and 2 support staff remain in La Paz, while 1 technician and 5 support staff be reassigned.

c. Accounting Division: current staff is 8 technicians, 6 support staff; recommend reassignment of 1 technician and 4 support staff.

d. Division of Project Control and Statistics: current staff is 7 technicians and 1 support staff; recommend division into two separate entities; Division of Project Control and Department of Coordination and Statistics. Project control would have 5 technicians and 1 support staff, while Coordination/Statistics would have 2 technicians and 1 support staff.

e. Division of Compras y Suministros: current staff is 4 technicians and 10 support staff; recommend reassignment of 1 technician and 5 support staff.

f. Transport Division: current staff is 3 technicians and 14 chofers; recommend reassignment of 8 chofers to regions, 2 per regional office

TECHNICAL

a. Technical Division: current staff is 11 technicians; recommend reassignment of 4 technicians to regional offices, one per office.

b. Division of Agriculture and Cooperatives: current staff is 7 technicians and 1 support staff; recommend reassignment of 4 agronomists to regionalx offices, one per office.

c. Division of Investigation: current staff is 8 technicians and 2 support staff; recommend reassignment of 4 technicians to regional offices, one per office, to fill post of Analista Social.

d. Division of Training: current staff is 3 technicians and 1 support staff; recommend reassignment of 2 technicians to field.

Given these changes, the make-up of the NCDS Central Office would shift as follows:

Offices/Departments	ACTUAL STAFF Tech	Sup.	PROJECTED STAFF Tech	Sup.
ADMINISTRATIVE				
Dirección	1	-	1	-
Secretaria General	1	2	1	2
Relaciones Publicas	2	-	2	-
Auditoria	3	-	1	-
Planificación	1	1	1	1
Asesoría Legal	1	1	1	1
Personal	2	7	1	2
Of. Nac. Operaciones	2	2	2	2
Dpt. Administración	2	1	2	1
Div. Contable	8	6	7	2
Div. Compras y Sumin.	4	10	3	5
Div. Transportes	3	14	3	6
Dpt. Control y Estadist.	7	1		
Div. Control Proy.			5	1
Dpt. Coord. y Estad.			2	1
Archivo	1	2	1	2
Impresiones	1	-	1	-
TECHNICAL				
Dpt. Proyectos	2	1	2	1
Div. Tecnica	11	-	7	-
Div. B.S.M.C.	2	-	2	-
Div. Agropec.y Coop	7	1		
Div. Agropec			1	-
Div. Coop.			2	1
Dpt. Investig. y Capac.	1	1	1	1
Div. Investigación	8	2	4	2
Div. Capacitación	3	1	1	1
TOTAL	73	53	54	32

In selecting the staffing pattern for the zonal and regional offices, as well as production and training centers, we have sought to maximize their technical and managerial autonomy. Given scarce technical resources, we believe these should be assigned almost exclusively to field assignments (where the need for them is greatest) rather than to centralized posts for the sake of program co-ordination. Accordingly, we recommend a distribution of field personnel as follows:

IN EACH OF 4 REGIONAL OFFICES

Technical Staff

Ing. Civil (contracted)	1
Ing. Agronomo (contracted)	1
Economista (contracted)	1
Constructor Civil	2
Agrónomos	4
Agentes de Coop. 2	
Agentes de Cred. 2	
Auditor Regional	1
Analista Social	1
Supervisora Regional BSMC	1
Especialistas BSMC	2
Auxiliares BSMC	3
Supervisores de Area	6

Support Staff

Administrador/Jefe Personal	1 (contracted)
Secretaria	1
Choferes	3
Cajero	1
Portero	1
TOTAL	30

IN EACH OF 18 ZONAL OFFICES

Technical Staff

Jefe Zonal	1
Constructor Civil	1
Agrónomo	2
Esp. BSMC	1
Aux. BSMC	3
Supervisor de Area	3

Support Staff

Contador Jr. (contracted)	1
Chofer	1
	13

IN EACH OF 4 PRODUCTION AND TRAINING CENTERS

Director	1
Administrador (contracted)	1
Mayordomo	1
Obreros estables	4
Chofer	1
Cocinero	1
TOTAL	9

NOTE: Instructional staff would be drawn from ranks of regional and zonal office technicians. For example, agrónomos would teach cooperativism and agricultural/livestock courses; analista social would teach CD Theory, group dynamics, etc.

SUMMARY OF N.C.D.S. PERSONNEL DISTRIBUTION

Central Office	86	18%
Regional Offices (4)	120	25%
Zonal Offices(18)	234	49%
Prod.& Training Centr.(4)	36	08%
	476 [1]	100%

1 This figure represents an increase of 16 employees over present level of 460. However, only 16 of the contemplated 22 field offices have been established. We can therefore argue that 5 of the 6 offices still-to-be-formed could be staffed with existing personnel.

B. Project Selection and Promotion

Heretofore the NCDS has primarily devoted its energies to building physical structures, not institutions. Expressed differently, the NCDS has been promoting the "architecture" of rural development. This consists of social infrastructure—schools, rural health posts, potable water systems, etc.—and economic infrastructure—roads, bridges, irrigation systems, livestock facilities, etc. Under the proposed loan program, the NCDS would begin to promote the development of so-called "rural productive enterprises" and cooperatives, while at the same time continuing to promote its conventional infrastructure project lines. Integrating these disparate activities into a coherent, mutually reinforcing development enterprise calls for the creation of an overall strategy. To say the NCDS will execute an "integrated approach" is of no help whatsoever unless the mechanisms by which different program elements will be integrated are specified. But even before the mechanisms can be specified it is necessary to define unambiguously what the different program elements consist of. To both these tasks we now address our attention.

1. Definitions of the Program Elements: By "social infrastructure" we refer to physical projects which enhance the quality of life in a rural community. Such projects generate social opportunities. For example, schools increase educational opportunities; clinics and potable water projects increase the liklihood of improved community health.

By "economic infrastructure" we refer to investments in fixed productive capital. Such capital, per se does not generate income increases; it can only create income opportunities. For these opportunities to be exploited, a given system of production is required on a group or individual basis.

This system of production—the organization of land, labor, livestock, machinery, management, operating capital, or other factors—constitutes a "productive enterprise". The productive enterprise makes use of economic infrastructure to convert income opportunities into income increases.

There is a dangerous tendency within the NCDS today to confuse the distinction between economic infrastructure and productive enterprise projects. For example, in Caranavi the NCDS has promoted two so-called "productive enterprises", a milk assembly depot and a coffee processing plant. The former project is simply a building, very little different from a school; it has no processing equipment, no scales, no truck; as a project it can not fulfill an income-generating function without a complementary loan to acquire working capital. Similarly, the coffee processing plant consists only of concrete structures—a collection vat, distilling pools, drying patio, storage, and administration facilities. The project does not include the purchase of processing machinery, which must await loan financing; but until such machinery can be obtained, the plant can not become a productive enterprise.

For purposes of the proposed loan program, we see no reason whatsoever to draw a sharp distinction between "productive enterprises" and "cooperatives". A cooperative is a type of productive enterprise, and most community productive undertakings —as joint endeavors—tend to be formal cooperatives or pre-cooperatives. Aside from loans for economic infrastructure projects, we anticipate that virtually 99% of the balance of the Revolving Credit Fund resources will finance cooperative productive enterprises.

2. A Strategy for Integrating Program Elements: To begin with, an "integrated approach" does not mean necessarily that all program elements or services must occur simultaneously. We believe the key to developing an integrated strategy of rural development by the NCDS—one combining the building of institutions with physical structures—lies in establishing a logical sequence of desired development outcomes. The sequence we would recommend consists of five stages, as follows:

1ST. STAGE: SOCIAL INFRASTRUCTURE CREATION AND/OR THE CONSTRUCTION OF ROADS AND BRIDGES

Objective: To initiate self-help group experience for the first time in a rural community.
Means: No use of credit; instead grant assistance up to 40 percent of project costs; also, in heavily labor-intensive projects, donation of Food for Peace.
Recommended Actions: Basic training of community leadership in Community Development, Group Dynamics, Cooperativism at regional training center.

2ND. STAGE: ECONOMIC INFRASTRUCTURE

Objective: To create income opportunities; to initiate group credit experience.
Means: No grant financing; provision of credit—interest free—to finance up to 60 percent of project costs.
Recommended Actions: Completion of economic feasibility study to determine income opportunities to be created by the project (1) given traditional production system, and (2) given modernized production system; also to estimate debt repayment capacity of community.
a. In small projects: organization of an on-site training program (cursillo) in credit management and bookkeeping.
b. In large projects: organization/reorganization and upgrading of cooperative; cooperative leadership to be trained in management/accounting at regional training center.

3RD. STAGE: PRODUCTION CREDIT AND FORMATION OF PRODUCTIVE ENTERPRISE

Objective: To exploit income opportunities generated in Stage 2; to build upon credit experience gained in Stage 2.

3RD.STAGE (Continued)

Means: Provision of credit with interest.
Recommended Actions: Completion of economic feasibility study or production plan; instigate a compulsory savings to credit ratio; train local leadership in management/accounting at regional training center.

4TH.STAGE: ECONOMIC CONSOLIDATION AND INTEGRATION

Objective: To exploit economies of scale in production & marketing; to strengthen institutional infrastructure via creation of support entities and federative organizations.
Means: Continued provision of credit at interest, with administrative surcharge to help finance operating costs of second-level institutions.
Recommended Actions: Formation of Co-op centrals, marketing services, consumer services; recruitment of professional business managers for second-level institutions; continued training and supervision of co-op leadership in management and accounting, both in community cursillos and at regional training centers.

5TH.STAGE: RENEWED EMPHASIS ON SOCIAL INFRASTRUCTURE CONSTRUCTION

Objective: Promote projects which tap the increased economic resources of community families in support of investments to improve their quality of life.
Means: No grant assistance; credit—with interest—up to 40 percent of project costs.
Recommended Actions: encourage construction of such projects as housing improvements, electricity, potable water, health facilities, etc.; train community residents as para-technicians to manage public services of community on a self-financing basis.

Obviously, the boundaries between these different stages are not clearly demarcated. However, the stages emphasize the importance of building community capabilities progressively but slowly. In general terms, production loans should not preceed the development of roads and bridges, or irrigation projects. Similarly, loans with interest should not be granted—as a general rule—to communities with no prior experience in group action or with institutional credit.

C. Sub-Lending Procedures

In keeping with the over-all rural development strategy recommended previously, we believe the following suggestions will strengthen the effectiveness with which Revolving Credit Fund resources will be utilized. Many of these suggestions were formulated on the premise that the Credit Fund approach represents a transitional stage in the program development of the NCDS. As such, we feel it is unwise to expect either the staff of the Service or the rural clients with whom they have worked to make a brusque adjustment from a grant program to a high-interest credit program. Indeed, one of the central preoccupations we sensed among NCDS field staff during our visits to regional and zonal offices was their worry that the NCDS—with prodding from USAID—was moving too fast from grants to loans.

1. Loans for Economic Infrastructure

   a. All loans should be interest free.
   b. Maximum financing should not exceed 60 percent of the total cost of the project
   c. Maximum repayment period should be 5 years
   d. Legal person (personería juridica) should not constitute a prerequisite for credit.
   e. As a loan guarantee, we recommend an obligatory savings deposit (un encaje) by the community of 1 peso for every 10 pesos received in loan.

2. Production Credit

   a. All loans—for crops, livestock, or machinery—should bear the same rate of interest. We suggest a soft interest rate of 5 percent per year, of which 2 percent would be earned by the fide-comisario and 3 percent to create the Rotating Credit Fund.
   b. An obligatory savings deposit of 1:10(as above) should be required.
   c. Livestock and machinery loans should be sequenced in annual stages. For example, one tractor at a time; 1-2 cows per farmer per year; this for the purpose of allowing recipients to acquire experience in the technical management of the new assets.

3. Fiduciary Agents

   a. Each rural group receiving credit should be permitted the option of chosing its fiduciary agent.

   b. However, the choice must be made from a list of fiduciary agent alternatives prepared by the NCDS.

4. Credit Contracts

   a. A credit group will be considered legally constituted when it as met in general assembly and elected a representative.

   b. The group and NCDS will jointly sign a credit contract, the original of which will remain with the community.

   c. The contract should contain a calamity clause, which specifies that in the event of a natural disaster or other calamity, the community will be given an exoneration or rescheduling of its credit obligation.

   d. The contract should contain a technical error clause, which specifies that if for deficiencies or errors in the technical design of a loan-financed project or activity the community suffers economic loss, the reimbursement of these losses will be the responsibility of the NCDS.

D. Training

In our visits to the field we have seen three of the NCDS's four training centers. Our overall impression is that these centers represent excellent facilities and potential for productive (income-generating) as well as training activities; also that they represent some of the most under-utilized resources within the NCDS. We recommend that the NCDS immediately undertake a comprehensive study of training center production resources and potential, followed by the preparation of a production plan for each center. To finance subsequent production activities, each center should seek loans at commercial interest rates. The ultimate objective is to convert each center into a model economic undertaking—an example and a stimulus to rural community leaders who will come to these sites to study and be

trained in modern agricultural and animal husbandry practices, cooperativism, business management, and other subjects relating to productive enterprises.

In our opinion the training centers do not need a full-time instructional staff. As we mentioned earlier(see p.32) technical staff in the zonal and regional offices could be used to teach required subjects. The agronomists should be responsible for teaching agricultural and livestock practices, credit use, cooperativism, bookkeeping and management, etc. The regional office's Analista Social (transfered from the Central Office's Investigation Division) could be expected to teach leadership training, community development theory, and practical methodologies of supervision and evaluation. The Regional Supervisor for activities with rural women, backed up by especialistas and auxiliares of the regional and local offices,could also be considered for instructional roles. Indeed, a routine function of every field technician's job is, or should be considered, teaching others. But finally, we recommend the part-time use of regional and zonal office field staff as training center instructors so as to promote a maximum coordination and integration between what heretofore has been managed as virtually separate branches of RADS activity. Each regional center of training and production should be a specialized adjunct to that region's project and credit activities—responsive first and foremost to local educational objectives, and only secondarily to programs conceived at the Central Office level.

E. Use of Female Para-Technicians

At present the NCDS Rural Women's Program is essentially a non-program. It lacks coherent objectives. It has been totally disrupted by staff resignation and assignment transfers, thereby precluding any chance of establishing continuity in the provision of possible program services. Up to now there has been little or no attempt to integrate the activities of female para-technicians with those of other members of regional and zonal office technical staffs. We believe the NCDS's female change agents could make an important, if not critical, contribution to the program activities envisaged under the Revolving Loan Fund. In keeping with the 5-stage model developed earlier, we propose the following sequence of roles and activities for the staff of the Rural Women's program.

STAGE 1: SOCIAL INFRASTRUCTURE
- Objective: Identify community female leadership
- Means: Teach conventional subjects for an initial brief period to gain confidence of community women and determine potential leaders.
- Recommended Actions: Teach sewing, health, nutrition, etc. with courses not to exceed 1-2 months; select candidates for training at regional training center.

STAGE 2: ECONOMIC INFRASTRUCTURE
- Objective: Teach community women technical skills which complement infrastructure project under construction
- Means: Short cursillos in the community
- Recommended Actions: If an irrigation project, teach vegetable gardening; if a livestock project, teach animal husbandry practices.

STAGE 3: PRODUCTION CREDIT
- Objective: Get community women involved in co-op activities; teach bookkeeping, management skills.
- Rationale: In rural Bolivia, campesinas participate actively in most production tasks; they usually control petty retailing and marketing functions; they usually control family cash savings; hence, they tend to have greatest economic expertise and experience; therefore, their participation in community cooperative activities must be encouraged.
- Means: Short cursillos in the community
- Recommended Actions: Teach bookkeeping, savings, credit use; Encourage selection of women for co-op positions such as Treasurer.

STAGE 4: ECONOMIC CONSOLIDATION

Objective: Encourage participation of females in group marketing activities; in management of consumer store services.

Means: Short cursillos in community.

Recommended Actions: Encourage selection of women to positions requiring marketing, retailing skills; continued cursillos on bookkeeping, credit use, savings, etc.

STAGE 5: RENEWED EMPHASIS ON SOCIAL INFRASTRUCTURE

Objective: Teach women how to make productive use of increased family income to improve quality of life; train women for para-technical positions, e.g. health clinic auxiliaries.

Means: Short cursillos in community

Recommended Actions: Conventional courses in sewing, cooking, health, nutrition; coordinate group acquisition of appliances, knitting machines, looms.

In our view no cooperative development activities will succeed in the Bolivian countryside if rural women are excluded from participation in these institutions; for their exclusion represents the loss of the best indigenous economic expertise available. On the other hand we are fully aware of the fact that the rural woman is considered subordinate to the man. What we therefore recommend is that women be trained and encouraged to fill positions that permit their participation without threatening the principle of male dominance, for example, in specially-created posts like Vice-Treasurer, Vice-President of Vigilance Committee, etc. In any event, the participation of women in co-op meetings is critically important, and we recommend a policy of encouraging joint male-female attendance at all co-op decision-making functions.

F. Program Evaluation

At this time the NCDS does not have an adequate project evaluation capability. While the institution can measure the number, type, and value of the social and economic infrastructure projects completed or under construction each year, it has no way of measuring the impact of these facilities. That is to say, the NCDS can not answer such questions as: Are the facilities being used? Are they kept in good repair? Has there been a demonstration effect? Has the completion of an economic infrastructure project led to an increase in community income? Have production practices in the community changed since the project? Instruments for collecting data to answer such questions as these have been designed; however, the instruments have not been adequately field tested, and their adoption and use therefore has been delayed for almost a year.[1]

In any event, the evaluation instruments already designed are potentially applicable to social and economic infrastructure projects only. They were not developed to measure the impact and benefits of a Revolving Credit Fund and productive enterprises. A new and separate set of instruments will be required to evaluate these new program elements.

As of four months ago, the authors of this report completed the design of a tentative evaluation system for evaluating income-generating community projects. This system was developed for ORDEZA in Peru. We believe that with relatively minor modifications it could be adapted for use in Bolivia. With that expectation in mind we sent two copies of the ORDEZA system to

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1 The design of these instruments was the result of a joint colaborative effort between senior staff members of the NCDS, Mr. Douglas Shumavon of AITEC, and Mr. Don Nickelwait and Mr. John Hatch of Development Alternatives Inc.

NCDS in February 1975. Portions of the system—for example, the community baseline survey format—were adapted for use in the NCDS Diagnostico. The ORDEZA system consists of the following instruments:

1. Community Selection Guide: a pre-coded instrument for selecting communities where income-generating projects are most likely to be successful.
2. Community Baseline Survey: an instrument to collect basic socio-economic data about a community.
3. Project Monitoring Forms: a set of staff reporting instruments to record program and community contributions to project, advance of construction activities, field staff activities during month, and the outcome of meetings with the community.
4. Accounting Forms: a set of control instruments to measure actual project performance with feasibility study estimates; also, instruments to calculate and analize project profit or loss.
5. Post-Project Socio-Economic Evaluation Form: a checklist instrument for recording measurable changes in project impact indicators.

In addition to field testing and adapting such instruments as these to the needs of the NCDS, we recommend experimentation with two additional instruments:

1. Cost of Production Journals; adapted for co-op use, to record labor, input, machinery, and other costs of crop or livestock operations; also to record market sales, consumption, gross and net income.
2. Standardized Formats for Project Economic Feasibility Studies: a set of formats specialized to different project types.

Our conviction is that no evaluation system will prosper unless the instruments can be simplified for routine application by project beneficiaries. Moreover, the instruments should permit local analysis and use of the results. Provided the design dialogue begins in the field, rather than the Central Office, and incorporates the insights of small farmers and NCDS para-technicians, we believe viable evaluation instruments can and will be developed.

III. PARTICIPATION OF N.C.D.S. FIELD STAFF IN OTHER U.S.A.I.D.—FINANCED PROGRAMS IN THE RURAL SECTOR

A. Sub-Tropical Lands Development Loan

Tentatively it has been estimated that this program will need one trained cooperative credit technician—stationed full-time in the San Pedro Service Office—to assist in cooperative promotion work in the Chane-Piray area for a 3 year period; then, beginning in 1978, a second cooperative technician to cover the San Julian area will be needed.

Currently the nearest NCDS field office, that of Montero, has only 2 agronomists, specialists in cooperatives and agricultural credit respectively. Neither can be spared for full-time assignment in the Chane-Piray; to meet the request a new staff item will have to be created. To justify this increase, we recommend that the cooperative specialist of Montero visit the Chane-Piray area, discuss the co-op promotion requirements of the region with INC staff in San Pedro, and submit a combined site-report and job description to the head of the NCDS Cooperative Division. Provided the job description justifies a full-time assignment, we see no reason why the NCDS would be unable to provide the requested technician.

B. Rural Access Roads

Here the NCDS would be requested to provide 40 or 50 volunteer líderes to promote the organization of self-help road construction projects in the departments of Cochabamba, La Paz (Yungas and High Valley Area), Chuquisaca (5 northern provinces) and Santa Cruz (western portion).

Judging from the reaction of NCDS field office heads in Cochabamba, Sucre, Oruro, Patacamaya, and Caranavi, the idea of a collaborative undertaking between the NCDS and the National Road Service (SNC) is nothing short of enthusiastic. Provided the SNC makes the required bulldozers available, the problem of mobilizing labor crews is negligible. Finding 40-50 volunteer leaders will be easy. In all the mentioned offices, unattended requests from communities for road construction assistance are accumulating. We recommend that efforts to finalize a Rural Access Roads Loan be accelerated.

C. Rural Community Sanitation

It is estimated that the NCDS would be asked to mobilize 400 volunteer líderes working on a part-time basis to organize community labor for the construction of 400 rural self-help water and sewage systems in the Departments of Cochabamba, western Potosí, and western Santa Cruz. In this case, the agency sponsoring project construction would be the Ministry of Public Health.

Conversations with NCDS field staff revealed very little enthusiasm for cooperating with the Ministry sanitation program. The feeling seems to be that the Ministry has insufficient experience in the development of projects of this nature. The estimated 250 man-months of volunteer lider time over a 3-year period seems unrealistic, for it equates to only 18 days per líder per project. In any event, provided líderes were drawn from communities that were to be directly benefited by sanitation projects, we believe much larger quantities of volunteer supervision could be mobilized. Also, provided no project is built further away than 6-8 hours travel (by foot or bycycle) from the home community of an NCDS Supervisor de Area, project supervision on a once-per-week basis by one of these para-technicians should be considered feasible.

D. Rural Health Loan

Here the NCDS would be asked to cooperate, through an expanded training program at its regional training centers, to disseminate health, family planning, and nutritional educational information in the Departments of Cochabamba, Chuquisaca (northern part), and Santa Cruz.

Cooperation by the NCDS with this loan would place minimal burdens on the Service. However, we believe the programming of regional training center activities should be locally determined. In keeping with our earlier comments regarding NCDS strategy (see pp.35-6, 40-41) we believe the promotion of health projects and information should not be indiscriminate, but rather can serve a useful role early and late in the community development process. Wherever NCDS strategy priorities coincide with those of health education programs, cooperation is to be encouraged. Otherwise, health education can become a distraction from more critical NCDS program activities.

E. Agriculture Sector I

This program would request the occassional cooperation of NCDS field staff—especially Supervisores de Area who are familiar with communities (and their residents) soliciting production credit—to assist MINAG personnel in Cochabamba, Santa Cruz, and Sucre to review credit requests. Additional NCDS assistance in organizing communities to receive MINAG extension services would be requested.

We strongly endorse this kind of institutional cooperation.

F. Concluding Comments

In general we feel present and anticipated NCDS field staff levels are more than adequate to provide cooperation and technical or supervisory assistance to other programs. We see such

cooperation is in the best interests of the NCDS because it provides additional opportunities for staff involvement in project activity. This, in turn, enhances staff productivity. Perhaps more importantly, the call for mobilizing NCDS-trained volunteer líderes is long overdue. In recent years the Service has trained thousands of these individuals. Aside from hiring a small fraction for field para-technician posts, this huge pool of indigenous leadership has never been effectively exploited. The NCDS is obviously in the best position to mobilize these resources on behalf of rural development programs sponsored by other government agencies. It is extremely encouraging that USAID has begun to request and plan for such cooperation.