PN-AAY-784

INTERNATIONAL CONSULTING DIVISION

CHEMONICS

MACA RESTRUCTURING REPORT

IQC Contract No. PDC-1406-I-00-7007-00
Work Order No. 14

PREPARED FOR

AGRICULTURE AND RURAL DEVELOPMENT OFFICE
USAID/BOLIVIA

PREPARED BY:

William L. Rodgers and Jonathan E. Smith

CHEMONICS INTERNATIONAL CONSULTING DIVISION
Suite 200
2000 M Street, Northwest
Washington, D.C. 20036

August 1987

2000 M St., N.W. Suite 200 Washington, D.C. 20036 Tel: (202) 466-5340 or 293-1176
Fax: (202) 331-6202 ITT Telex: 440361 CHNC UI

TABLE OF CONTENTS

		Page
EXECUTIVE SUMMARY		1
INTRODUCTION		6
I.	MACA Organization	10
	A. Background	10
	B. Present Situation	13
	C. MICRO/Origins, Purpose, Accomplishments	32
	D. Decentralized Organizations	36
	E. PL 480	47
II.	Evaluation of MACA/MICRO Reorganization	50
III.	Agricultural Private Sector	60
	A. Regional Agricultural Chambers	60
	B. PAPOS	61
	C. National Wheat Council	62
IV.	Issues	63
V.	Program Initiatives	65
	A. Training: an Introduction	65
	B. Existence of Manpower Training Needs in MACA and the Agricultural Sector	65
	C. Purposes and Goals of a MACA/Agricultural Sector Training Program	68
	D. Existing Training Institutions and Their Potential Contributions	69
	E. Participant Training Overseas	70
	F. Bolivian Universities	70
	G. Independent Institutes	73
	H. A Practical Approach to Sectoral Training Needs Analysis	79
	I. Other Institutional Support for MACA	81
	J. Immediate Self-Improvement Programs	81
	K. "Begin Now, Do-It-Yourself," In-House Training Programs for MACA	85
	L. Technical Assistance	87
	M. Studies	88

TABLE OF CONTENTS
(Continued)

		Page
VI.	International Organizations and Projects	89
VII.	Illustrative Budget	91
VIII.	Recommendations	92

EXECUTIVE SUMMARY

Imagine MACA (The Ministry of Rural and Agricultural Affairs) as a large symphony orchestra. The members of the orchestra are in their places with their instruments. The minister of agriculture is on the podium, dressed in formal attire, baton at the ready, poised to conduct. The audience are in their seats, waiting expectantly. The baton comes slashing down through the air. Pure cacophony. What happened?

There is no music, no theme. Some of the players are playing their own melody. Others have not fully mastered their instruments and are only making noise. Crucial members of the orchestra are missing and some sections are woefully understaffed.

MACA commands 0.5 percent of the national budget or approximately Bs12.0 million. It has over 4,000 employees, most of them ill-trained and grossly underpaid. Morale is low and incentive lacking. Office space is crowded and below standards.

This is MACA today. The GOB, recognizing that MACA is no longer a functioning body in the Bolivian agricultural sector, has decided to completely restructure this institution by streamlining and reorienting its goals and purpose.

To carry the analogy one step further, in place of a large, unwieldy symphony orchestra, the planners in MICRO (the ad hoc group of planners and advisors to the agricultural minister) have decided to partition this large, inept organization into small chamber orchestras, each with its own musical repertoire.

The MICRO planners would drastically pare MACA down. After the implementation phase, 90 professionals will remain in the La Paz central office and more highly qualified technical administrative personnel will remain in the field. After paying the severance pay of the dismissed workers, the money saved will be used to upgrade the remaining personnel and hire qualified professionals. There will be a dramatic concentration of professionals built around a new organization whose purpose will be not to control and operate, but to plan and set policy and procedures. The new MACA will coordinate and link closely with the regional agricultural councils, the private sector producer associations, and decentralized institutions. The latter will be merged into five organizations.

The planners at MICRO intend to create within MACA a strong marketing office, as well as expand and strengthen the MACA central planning office, raising it to the subsecretarial level,

fully staffing and equipping it. The model for the technical backstopping offices will be the National Seed Program. There will be an emphasis on decentralization and a strong support role for regional private sector entities.

A similar program is being put into effect with the BAB (the Bolivian Agricultural Bank).

In short, MACA will be striving toward a leaner organization that is willing and able to provide services to the private agricultural sector by utilizing a qualified professional staff. The following are specific objectives:

- o a MACA that is a planning and procedures organization rather than an operational and controlling organization
- o a MACA that will work closely with the regional agricultural councils, agricultural chambers of commerce and agricultural producers' associations to provide them with agricultural policy support and services
- o a MACA that will have a marketing office staffed with qualified, professional marketing personnel. This office will function as the center for formulating marketing policy, providing market information, and market price forecasting. This information will be disseminated to regions and production areas
- o a MACA sector planning function raised to the level of a subsecretariat, staffed with qualified economists, planners, and statisticians
- o several decentralized MACA organizations, including BAB, IBTA, and Fisheries, will be upgraded, receive training for their staff, and additional selected equipment to support their operations

Strategies to reach these goals and objectives include the following:

- o Organization and development of a parastatal institution (in essence, a "new" MICRO) that will have the flexibility, autonomy, and professional capability to implement the restructuring of MACA
- o Mounting of a massive training program to upgrade technical and professional personnel within MACA, decentralized institutions, and the private agricultural sector

- Reorganization of the research and extension institution, IBTA, using an in-depth commodity approach. It includes adopting a narrow focus on six commodities, reducing the number of personnel in the La Paz headquarters office, and increasing the professional caliber and quality of researchers and extensionists in the regional research centers. It would also include raising salary levels to attract more qualified individuals, having them work on priority targets as part of an in-depth commodity research team, and charging fees to the private sector for services rendered.

- Utilization of the seed project as a working model for a successful outreach project to the regions and private sector producer associations. The fee structure for seed certification services should be modified and adapted throughout the other decentralized public organizations.

The constraints to accomplishing these goals are varied, the principal ones being:

- a dramatic shortage of highly qualified middle-level technical managers in the public sector, as well as a lack of trained administrators

- serious lack of financial resources, and an inadequate MACA budget

- an inability, so far, to reduce the surplus of personnel in the La Paz central office

- an inability to increase technical service personnel in the regions and in the rural production areas

In conclusion, USAID/Bolivia should support these restructuring initiatives. The timing in Bolivian politics is appropriate, in that this is a time of strong leadership and relative economic stability. A technological upgrading in Bolivian agriculture is long past due if the country is going to be able to compete with her neighbors in the international market.

There are a number of conditions and provisions, however, that should be met by MACA before the USAID mission approves continued financial support to the MICRO. These are as follows:

a) <u>Human Resources Inventory of MACA/MICRO.</u> This will be carried out by a local institution. All MACA personnel will be surveyed as to duties, salary scale, and technical and professional capacity. All positions will be evaluated and prioritized according to usefulness to

the agricultural economy and the well-being of the country. As an integral part of the survey, the evaluators must ascertain training needs for the remaining professionals in MACA and decentralized institutions.

b) Release at least 50 percent of the MICRO staff. This means that at least half of the 35 persons presently working in MICRO will be affected. Only a hard-core group of professionals with a minimum of administrative support staff will remain.

c) Establish the new MICRO as a legal parastatal or state corporation entity. This is an act that may require a supreme decree. The life of the new organization is estimated at three to five years.

d) Work Plan. MICRO should present to USAID a work plan to cover the first year. As part of the plan, MICRO personnel will be clearly responsible for performing only those duties that relate to the implementation and restructuring plan.

e) Advisory Board. An Advisory Board consisting of representatives from the public and private agricultural sectors will be created. Represented on the board will be regional chambers of agriculture, agricultural producer associations, MACA, MICRO, agroindustrial groups, and agribusiness associations.

f) Funding. As a precondition, MACA will provide part of the funding for MICRO, the exact percentage to be defined by USAID. This contribution could be in kind e.g., provision of office space, provision of administrative support, and the like.

Finally, the authors of this report make the following recommendations. First, USAID/Bolivia should continue to support the restructuring of MACA and the implementation of the new MACA and its institutions for an additional three-year period. A highly professional and autonomous MICRO should be funded and supported. A new state corporation, MICRO, will be created to execute, develop, and implement the reorganization of MACA.

It is further recommended that USAID/Bolivia mount a massive training program to upgrade technical and professional personnel within MACA, BAB, the National Seed Council, the Department of Fisheries, IBTA, and the private agricultural sector. This program should utilize Bolivian training institutions such as IDEA, IBEE, and the Catholic University, as well as outside organizations for both long and short-term training.

It is also recommended that IBTA be reorganized along the lines of an in-depth commodity research program limited to six commodities.

It is recommended that the Center for Fishing be provided with technical assistance, some equipment, and training. This organization provides jobs and is a source of needed protein throughout the country.

It is recommended that PL 480 Title III reflows be used for technical assistance for regional MACA offices, to support the regional agricultural councils, to train MACA personnel, and to promote other reorganization efforts that contribute to public-private agricultural production and/or marketing linkages.

It is recommended that immediately following approval of the restructuring decree, MACA will contract with IBEE, IDEA, or a similar private entity to perform a human resources inventory, that is, a personnel survey and evaluation of all the jobs within MACA, including salary scales and duties. This survey should not take longer than three months and will form the basis for future personnel restructuring within MACA.

It is recommended that a strong effort be made by the USAID/Rural Development and Private Sector offices to further functionally integrate MACA, BAB, and decentralized organizations, including the National and Regional Seed Councils, Fisheries, IBTA, and CIAT, into the ongoing USAID PL-480, PAPO, and Market Town Investment projects. A sustained effort will have to be made on the part of all concerned institutions with regard to agro-industrial projects. USAID/Bolivia should consider appointing an agro-industrial liaison project manager so that a pragmatic integration of the above projects will be implemented and sustained.

INTRODUCTION

"Lo Perfecto Es Enemigo De Lo Bueno"
Spanish Proverb

Agriculture remains the most important sector of the Bolivian economy, employing over 50 percent of the work force. The combined outputs of the agricultural, forestry, and fishery sectors accounted for 19.8 percent of Bolivian GDP in 1986.

Bolivia's most important agricultural export, coffee, increased by 70 percent in 1986 to $23.5 million. Timber exports more than doubled, from $5.8 million in 1985 to $13.0 million in 1986. On the other hand, sugar exports dropped substantially due mainly to continued reductions in the U.S. sugar quota and a lack of other world markets. The bright spot in the Bolivian agricultural sector is the production and export of soya, as both meal and cake for animal feed. Soya exports have increased to $16.7 million in 1986 compared to $5.3 million in 1985. Many former sugar producers are now growing soybeans, and the crop has emerged as Bolivia's fastest growing agricultural commodity.

In other words, anything that affects the agricultural sector has a profound effect on the nation's economy. Today, Bolivia's principal agricultural exports are coffee, soya, sugar, and timber, although selected items such as cut flowers are gaining in importance.

Given the existing weakness in international mineral markets, Bolivia will need to rely less on tin or oil and more on the agricultural sector to feed an increasingly urban population and to provide additional foreign exchange through exports. The agricultural sector can provide additional production for both domestic and foreign markets. In order to do this, however, producers will need to use better technologies.

Bolivian agriculture has suffered for years from underinvestment as a result of unwise government policies, such as price controls on agricultural commodities; import and export taxes on farm machinery, agricultural inputs, and agricultural production; and foreign exchange restrictions.

The two most important public institutions serving the agricultural sector, i.e., the Ministry of Rural Affairs and Agriculture (MACA) and the Bolivian Agricultural Bank (BAB), are very weak. These institutions have suffered from poorly trained personnel, a lack of professionalism, a lack of operating capital, low salaries, a large number of employees in the central office versus relatively few in production areas. As a result,

these institutions have not provided agricultural support services to farmers and ranchers.

The marketing of most agricultural commodities in Bolivia is chaotic and disorganized. Market information systems and quality standards are non-existent, resulting in frequent market gluts and shortages as well as high post-harvest losses. There is a lack of market infrastructure, such as storage capacity, adequate transportation, and modern wholesale markets.

The agro-industrial sector is small and generally consists of primary commodity processing in selected crops (soybeans, wheat, sugar).

Nevertheless, in the past year the government has taken a new and positive look at the agricultural sector. Many changes have taken place but much remains to be done.

There is general agreement in the public and private agricultural sectors that the time is ripe for profound changes. MACA has dynamic new leadership at the ministerial and subsecretarial levels. The same holds true with the BAB. The economic situation has improved dramatically, the private sector is responding with production increases and appears eager to expand agricultural production further as soon as mechanisms can be developed to provide farmers with increased credit, inputs, marketing systems, and agricultural support systems. The latter are now the principal constraints limiting increased production.

Restructuring of the Agricultural Public Sector

Both MACA and BAB have now initiated drastic reorganizations aimed at completely overhauling the two institutions to make them more efficient units. MACA is taking concrete steps to reduce its size and approach to the agricultural sector. No longer will it try to be an operational entity. Ministry authorities starting with the dynamic new agricultural minister, Lic. Guillermo Justiniano, and his subsecretaries have made commitments to orient MACA toward agricultural production by engaging in close collaboration with the private sector and by having MACA concentrate on policy and procedural issues rather than operations.

The restructuring exercise should make MACA an efficient policy and procedures organization that will be responsible for sector planning and prioritizing. It will also serve operative decentralized organizations and institutions.

There are a number of obstacles to overcome, however, before the above can be accomplished. Among these is a lack of professional-level employees capable of implementing these plans.

Another is the lack of policies and laws needed to carry out the government's free market policy. Policies are needed to provide production incentives, technical development for both domestic and export production, and the domestic and export marketing of agricultural commodities.

In order to resolve these and other problems, a planning entity was created within MACA to restructure the sector and implement policy. This organization, composed of highly trained and experienced professionals, goes under the acronym of MICRO (Mecanismo Interno de Coordinación de la Reestructuración Orgánica del MACA). This internal advisory group, created in 1986 and supported by funds from PL-480, employs the assistance of advisors from FAO and IBEE and has the responsibility of turning policy into reality.

With regard to the Bolivian Agricultural Bank (BAB), Supreme Decree No. 21660 was signed into law on July 10, 1987, by the President of Bolivia, permitting the bank to undergo restructuring. BAB will now deal exclusively with small farmers up to a limited credit amount. Also, it will decentralize, accept deposits, and subrogate its outstanding debt to the National Treasury. Under new dynamic leadership, BAB plans to increase its efficiency in serving the agriculture sector.

This report appears to be an analysis of the reorganization of MACA; in a sense, it is. This is not the first attempt at reorganizing the ministry, however, nor will it be the last. Historically, a succession of initiatives have been put forth under different governments. These have had a varied impact on the sector, not all of them positive. This report, therefore, looks beyond the reorganization of MACA and attempts to see what reorganization entails for the rural sector in terms of increased agricultural production and employment. It also looks at the other players besides MACA: the decentralized institutions, the private sector, the regional institutions, international donors, and, most important, the farmer. How should these varied entities interrelate to bring economic and social improvement to Bolivian agriculture and rural life? That is the theme of this report.

The report has a number of sections. First, we outline the present status of the Bolivian agricultural sector including MACA and other relevant institutions, programs, and projects. Then we discuss the main issues impinging on the sector that appear to have an adverse effect on the system. Third, we present our recommendations. Included in the latter section are several program initiatives; some are new, while others reinforce programs or projects that USAID or the GOB are presently undertaking.

It is obvious that in a one-month overview of a sector as complex as Bolivian agriculture, with its traditions, cultures, geographic diversities, and public/private sector philosophic antagonisms, one report cannot provide all the answers. It can provide a fresh look at an old problem and, by doing so, help MACA and USAID find innovative approaches to persistent problems. If one or two of these attempts are successful and thereby move Bolivian agriculture forward a notch or two, then this exercise will not have been in vain.

SECTION I

MACA ORGANIZATION

A. Background

1. Overview for Restructuring the Ministry of Agriculture (MACA)

Over the last several years there have been various attempts to reorganize the Bolivian Ministry of Agriculture (MACA). For a number of reasons, perhaps mostly political, these efforts have never reached fruition. Nonetheless, at the time of this report there is a consensus among the Bolivian and international public and private sectors that Bolivia is at a crossroads where both economic conditions and government attitudes favor change. Hyperinflation is under control; the international exchange rate has been stabilized; and politicians are seeking creative institutional reforms could support their economic recovery plans. (At this moment, there are reorganization activities being implemented in the Central Planning Office, the Banco Agricola, the Banco Central, and MACA.)

The following overview of influencing factors in the Bolivian economy, agriculture, and political worlds will not only serve to illustrate the issues at stake in the Bolivian agricultural sector, but will also provide an understanding for the complexity and enormity of the challenges facing MACA. The philosophy for institutional change within MACA, and MACA's choices for that change should thereby become clear.

Of Bolivia's approximately 109.8 million hectares (nearly the same land area as Peru), only 70 percent is considered cultivatable land. Of that, annually cultivated lands represent only about one percent of the useable total. Corn and potato crops have typically held the top positions as land users, the amount in 1984 being 41 percent of Bolivia's cultivated crops. Soil conditions, weather patterns, crop diseases, lack of adequate farming machinery suited to Bolivia's geographic peculiarities, and poor to nonexistent agricultural commercialization have all contributed to Bolivia's inability to be truly self-sufficient in food.

To this panorama one can add the Government of Bolivia's traditional neglect of the agricultural sector. Because the oil and tin industries were healthy and served as major national income producers, the country allowed itself the unfortunate luxury of relying almost exclusively on them. Serious technical and commercial development efforts limited themselves primarily to these two industries. Agriculture remained orphaned.

The present world markets for tin and oil are badly depressed. Many Bolivians in these industries are out of work. As a further illustration of the problem, it is known that Bolivia's present natural gas exports to Argentina--Bolivia's only remaining significant natural gas exports--are due to terminate in 1992 when it is estimated that Argentina will no longer need Bolivian natural gas. (Even at this time, Argentina is not paying for these exports.)

Substitutions for these severely depressed industries were sought. Agriculture was the substitute the government selected, despite its profile as a generally disorganized sector, supported by an understaffed and poorly run public institution. Perhaps the government's focus on agriculture came from the realization that in the 1970s it was demonstrated that mechanization of large-scale farming was both possible and productive, at least in the large land areas in the eastern sectors of the country where success was being achieved. Even though the government did not possess all the satisfactory statistical data it needed, all the general indications showed that Bolivia had the potential in agriculture not only to become self-sufficient, but also to be an exporter of agricultural products.

Thus, the new government has been actively adopting strategies that demonstrate its new attitude toward the agricultural sector. The agricultural sector is now designated as the country's most viable investment area for technical and institutional development. The government is committed to restructure the agricultural sector and to concentrate on agricultural development in order to offset the loss of its industrial markets. This approach to dealing with the crisis is sometimes termed "a new style of development."

Some very difficult problems face the government as it embraces the agricultural sector. These include, among others:

- The low technological level in agriculture.
- An agricultural management style that is historically political, focussed on peasant farmer affairs while neglecting development issues.
- A MACA replete with political appointments designed to perpetuate rigid, political concepts.
- A MACA that receives only .5 percent of the annual national budget, amounting to 12 million Bolivianos (US$6 million), and that has a poor capacity for planned spending.

Nonetheless, these technological and politico-institutional problems are getting a hard look, even at the presidential level. And so it is that the decision to restructure MACA has once again been made, this time within a positive climate of change and a sincere sense of urgency to make it work.

It is precisely the energetic attitude of the present government to develop workable innovations that differentiates this government from others that have voiced their support for a restructured MACA.

2. MACA and the Agricultural Sector Today

When one realizes that MACA captures only .5 percent of the annual national budget, one naturally assumes that nothing can really be going well under these circumstances. Of course, nothing really is and has not been for some time.

The problems can be traced through a series of previous policies that have continuously and seriously undermined the authority of MACA. Unfortunate concentrations of political interests in rural peasant affairs, at the cost of agricultural development policies, have encouraged the creation of autonomously operating agricultural units that do not hold themselves administratively responsible to MACA central. These "institutes" have achieved their independence and operational capability as a response to the weakening of MACA central. Nothing better describes this situation than the fact that international organizations now deal directly with decentralized institutions for funding projects in the agricultural sector. The MACA central is basically ignored by all.

This operational and decision-making independence at the institutional level has led to a highly disorganized infusion and utilization of funds, projects, equipment, and experts from international organizations to the agricultural sector. The agricultural sector is thus host to costly duplication and overlapping of technical assistance, none of which obeys any centrally conceived rationale or prioritization. In fact, the independent institutions frequently commit themselves to programs without MACA or other "sister" institutions being aware of them, much less participating in them. Therefore, it is obvious that the decentralized institutions are operating in too much isolation.

This phenomenon extends beyond autonomous decentralized institutions. There are subsectors in the agricultural sector have no coherent tie-ins with the institutions. There are normative and functional cross-overs with other multisectorial entities that show no evident concern for duplication of responsibilities, efforts, or fundings.

The Regional Development Corporations, which are designed to act as decentralized planning entities for departmental development planning, have nominally taken over the role of MACA central in the areas of both rural and agricultural development. Nonetheless, this has not resulted in an elimination of independent regional activities and has not really served as a coordinated, regionally centralized, priority planning organ for the agricultural sector. Actions and projects continue to exist autonomously and in isolation.

In synthesis, it is fair to say that both vertical and horizontal coordinating lines are missing. There are no satisfactory or effective mechanisms for inter- and intra-institutional communications. There is no coherently coordinated system of national, national-level departmental, or regional projects, communications, or agreements.

In this rather bleak scenario, MACA remains the only viable entity for enforcing institutional reforms to combat the problems sketched above, despite the very weakness of MACA central itself, which has led to this autonomous decentralized activity. Choosing MACA obeys the structural needs of the sector as well as of the nation. It also obeys the logic of the public administration structure.

Once having "put the money" on MACA as the instrument for solutions, there were guidelines the government had to establish. The most important was that MACA would not be an operational entity. The operational privileges would be left with decentralized organizations and private agricultural entities. MACA would be the normative authority of the agricultural sector, responsible for establishing agricultural sector policies and procedures and sector-wide planning to which decentralized organizations would adhere.

That is the basic concept of the new MACA. Before analyzing the new MACA, however, it is important to examine the present state of that entity. Appreciating the "realities" will lay the groundwork for evaluating the proposed restructuring of MACA.

B. MACA - Present Situation

A look at MACA's historical image (and reality) demonstrates especially well why the decentralized organizations became the logical answer for filling the void left by MACA over the years.

- MACA employees are poorly paid, even in comparison with other civil servants.

- Poor pay has resulted in a talent drain to the decentralized organizations or to international organizations based in Bolivia or elsewhere.

- Human resources decapitalization has led to loss of prestige.

- Loss of prestige has resulted in the inability to maintain or attract necessary talent for performing the chartered function of "rector" of the agricultural sector.

- MACA is incapable in fact and in image of providing agricultural policies.

- Lack of central policy formation has created the decentralized situation described. It has also destroyed MACA's credibility in the eyes of possible supporters.

- Over 60 percent of MACA personnel are administrative support types, most of whom are superfluous. The remaining 30 percent, directors, technical specialists, etc., are also "dead wood" whose origins lie in political or "old boy network" appointments. (See charts on the following pages.)

CUADRO No. 1

RESUMEN LA PAZ

Nivel	No. Personas	Porcentaje
0.00	1.00	0.27
0.00	2.00	0.54
1.00	9.00	2.43
2.00	19.00	5.14
3.00	27.00	7.30
4.00	8.00	2.16
5.00	11.00	2.97
6.00	16.00	4.32
7.00	23.00	6.22
8.00	8.00	2.16
9.00	19.00	5.14
10.00	25.00	6.76
11.00	38.00	10.27
12.00	70.00	18.92
13.00	12.00	3.24
14.00	13.00	3.51
15.00	30.00	8.11
16.00	39.00	10.54
TOTAL Personas	370.00	100.00

CUADRO No. 2

RESUMEN MACA

Nivel	No. Personas	Porcentaje
0.00	1.00	0.14
0.00	2.00	0.27
1.00	17.00	2.34
2.00	36.00	4.95
3.00	41.00	5.63
4.00	13.00	1.79
5.00	69.00	9.48
6.00	32.00	4.40
7.00	71.00	9.75
8.00	14.00	1.92
9.00	25.00	3.43
10.00	27.00	3.71
11.00	74.00	10.16
12.00	142.00	19.51
13.00	16.00	2.20
14.00	37.00	5.08
15.00	41.00	5.63
16.00	70.00	9.62
TOTAL Personas	728.00	100.00

Grupo Ejecutivos Apoyo Nivel (0 - 1)		Grupo Jefes y Técnicos Nivel (2 - 5)		Grupo Ayudantes y Técnico Nivel (6 - 10)	
Ministro	1.00	Jefes Depto.	36.00	Ayudantes Tec.	146.00
Sub. Sec.	2.00	Jefe Inspector	1.00	Servicios Tec.	36.00
Directores	17.00	Técnicos	178.00	Sub Inspector	43.00
		Auditores	7.00		
TOTAL	20.00	TOTAL	222.00	TOTAL	225.00
% Personas	2.75	% Personas	30.49	% Personas	30.91

Grupo Apoyo Adm. Nivel (11 - 13)		Grupo Auxiliares y Servicio Nivel (14 - 16)	
Secretarias	73.00	Servicios	71.00
Dactilógrafas	30.00	Diligencieros	3.00
Auxiliares	74.00	Mensajeros	10.00
TOTAL	177.00	TOTAL	84.00
% Personas	24.31	% Personas	11.54

NOTA: Es importante mencionar que varios cargos no tienen un nivel fijo; lo que se hizo es una aproximación.

Clearly, the MACA restructuring faces enormous challenges. They are grassroots challenges to determine what is the role and purpose of MACA in the agricultural sector and to translate that into a coherent central organization through which the agricultural sector can achieve the general goals of the government. Above all, MACA is faced with a very serious human resources challenge.

The present government has perceived the magnitude of the challenges and has decided to begin basic restructuring efforts. Thus, their very first task was to clearly establish MACA's purpose and goals. Their efforts to establish MACA's purpose and goals must not be underestimated, for the practical and ideological building blocks on which the physical and functional restructuring of the MACA will be built originated from these goals.

1. Official Image-Objective for Restructuring MACA

As would be expected, the restructuring guidelines are in accordance with policy level ministerial dictates. Many of these guidelines have presidential backing to ensure that the MACA restructuring obeys the government's new economic policies and roles for the agricultural sector. The official image-objective for MACA has been defined with the help of participating internal, external, and international advisors.

Thus:

- The name MACA (Ministerio de Asuntos Campesinos y Agropecuarios) will be retained. It defines the significance of the conceptual design of the ministry. It states how the sector is considered in institutional and juridical terms--terms which must be interpreted with maximum flexibility to ensure functional and operational efficiency. (It also admits to the responsibility of completely divorcing the ministry from the political realities and ties between peasant farmer relations and agricultural affairs).

- The restructuring of MACA will be global. It must include the entire agricultural sector.

- The restructuring will aim at enabling the private and decentralized organizations to become more efficient production entities.

- The restructuring will be a modernizing effort.

- The new MACA will be a non-political, non-paternalistic entity.

- In the non-political spirit, the juridical/rural aspects of MACA will be relocated. (Note: legal instruments will have to be drawn up and approved for this to become fact).

- The new MACA will be a normative, policies and procedures body charged with establishing national agricultural sector planning. MACA will establish and implement agricultural policies aimed at providing better services to the decentralized and private sectors within this central planning concept.

- The decentralized organizations will retain their operative characteristics but will also operate within centrally established national priorities and guidelines which MACA Central will create.

- The Banco Agrícola de Bolivia will be restructured in accordance with the restructuring of the sector.

2. Recent Design Evolution for MACA Restructuring

There is a rather extensively developed "Final Design" recommendation for the restructuring of MACA in which many of the above concepts, as well as others, are presented. Despite the fact that these concepts are voiced only at official levels, they do reflect the most authoritative guidelines available as of this writing. They will be the ones we will keep in mind when analyzing the restructuring work to date. They provide a solid beginning, since they allow the restructuring work to directly address the following problems within MACA:

- lack of authority
- lack of planning
- excessive bureaucracy
- functions being carried out by other government agencies

Once the image-objectives of the MACA were on track, it became possible for the team of internal, external, and international advisors to formulate a MACA organizational structure which would not only be technically sound, but which would also reflect the needs and desires of the ministry authorities. It had to be an organizational chart which reflected the fact that the MACA is overbloated with personnel as well as similarly admitting to the fact that a new organization was going to require hiring new and better-qualified human resources talent. It had to be a restructuring which would avoid simply moving little administrative boxes around within an administrative-organizational chart. Above all, the restructuring would have to include the decentralized

organizations, leaving them as the operational arms of MACA while simultaneously bringing them into a centrally-planned and central planning MACA.

This has been difficult to achieve. Nevertheless, there have been successes along the way. It is useful, at this point, to study the evolution of the thought which has gone into the organic structuring of MACA. There are four preliminary attempts at a MACA organization chart. The following criteria were used in each of the following designs (refer to the following pages for the organizational charts).

Alternative Design 1:

This design considers the importance of separating activity areas, these being the socio-political and the technical/productive areas. The weakness of the design was considered to be in its traditional aspect which does not allow for a reflection of the government's new modernization policy and agricultural activation.

Alternative Design 2:

The design considers keeping the man-earth integration by combining rural development and agricultural development. It was felt that this concept was relatively strong in that it translated the spirit of the creation of MACA as well as the present government's orientation towards the modernization of the sector.

Alternative Design 3:

Here a commercial subsecretary is added to the classic lines presented in the first design. The strength of this concept was thought to be in recognizing the universal inability of the agricultural sector to export due to its manifest marketing inabilities throughout the sector.

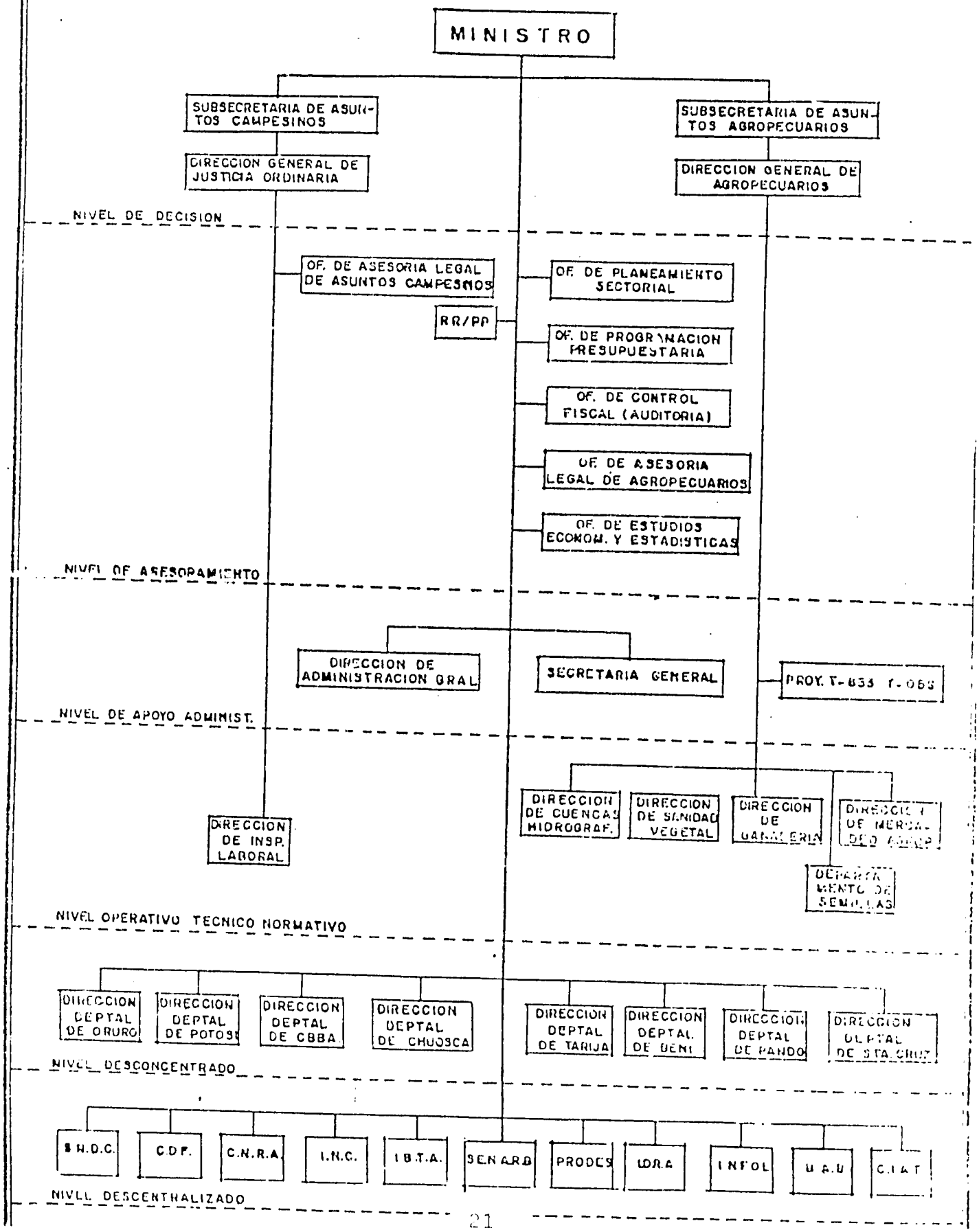
There would remain the need to work out the interrelationship of this subsecretariat with the Ministry of Industry, Commerce, and Tourism, since it is thought that the best marketing for the agricultural sector can be done within the MACA itself, and not within another ministry.

Alternative Design 4:

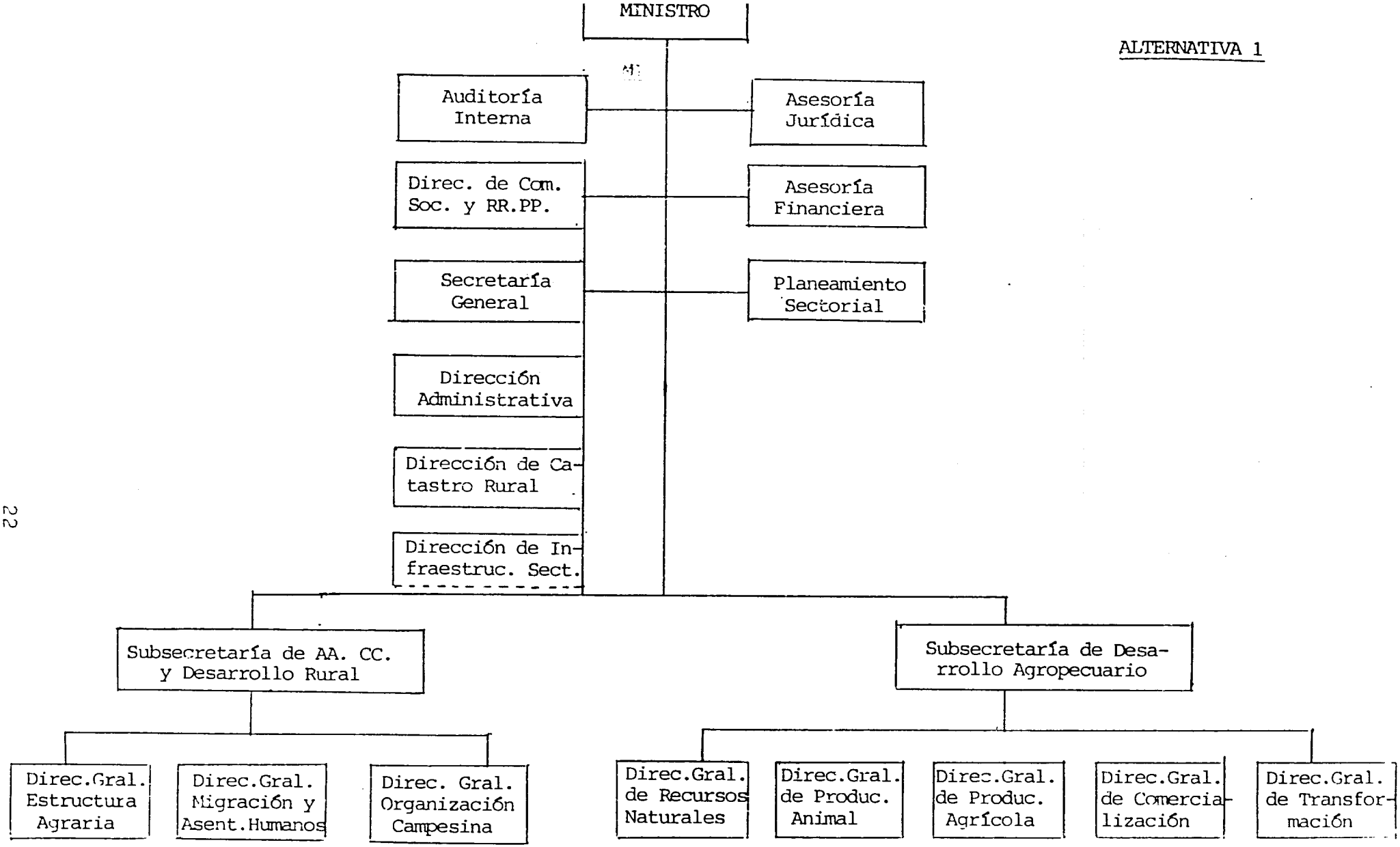
This configuration gives MACA an executive planning configuration. It was initially thought that this planning subsecretariat would be temporary in nature, designed to give the push-off to the actual restructuring implementation tasks. Once the restructuring were "in place", the Subsecretariat of Planning would become an advisory unit.

MINISTERIO DE ASUNTOS CAMPESINOS Y AGROPECUARIOS - 1985

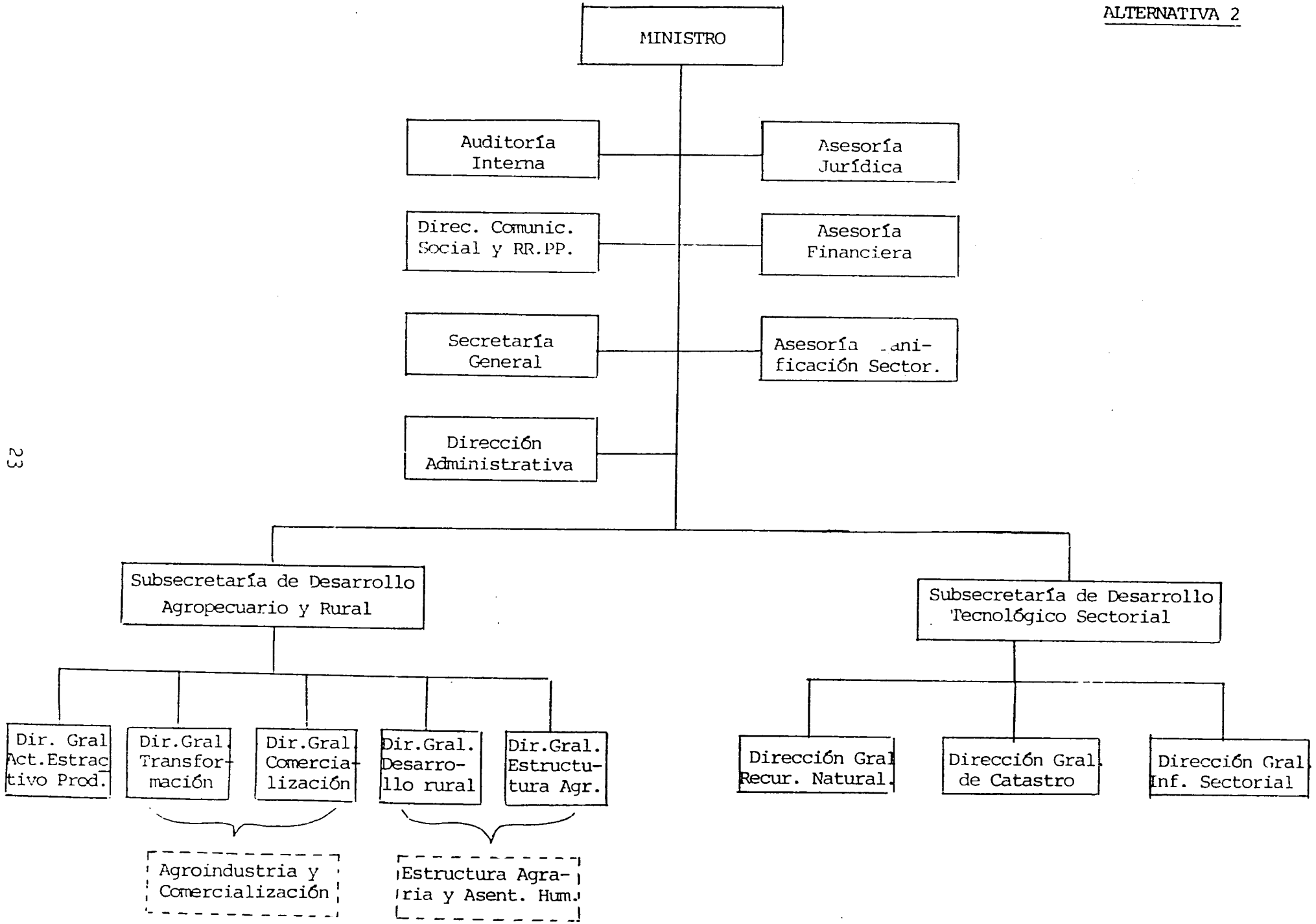
ORGANIGRAMA Nº1
(ACTUAL)



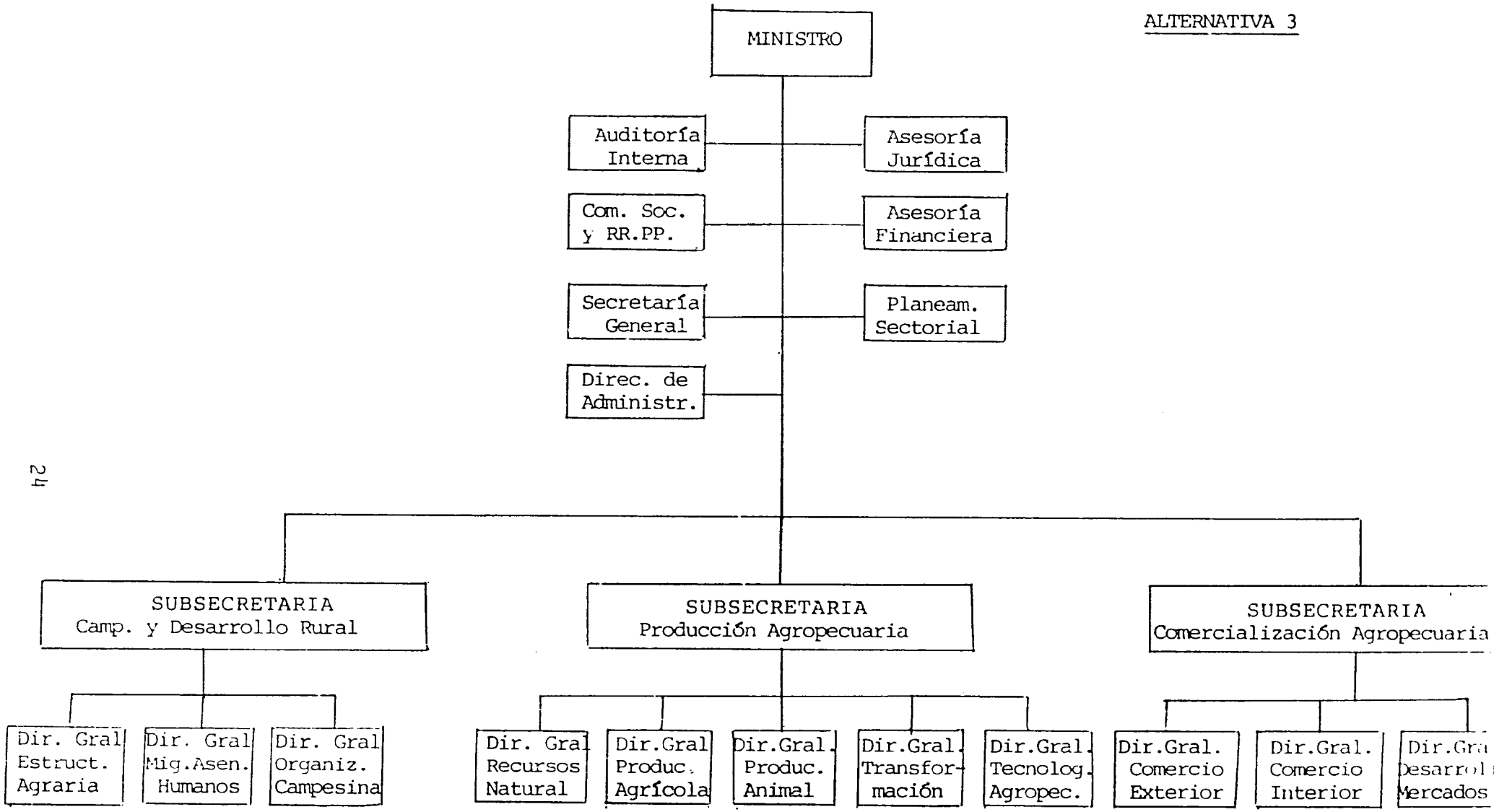
ALTERNATIVA 1



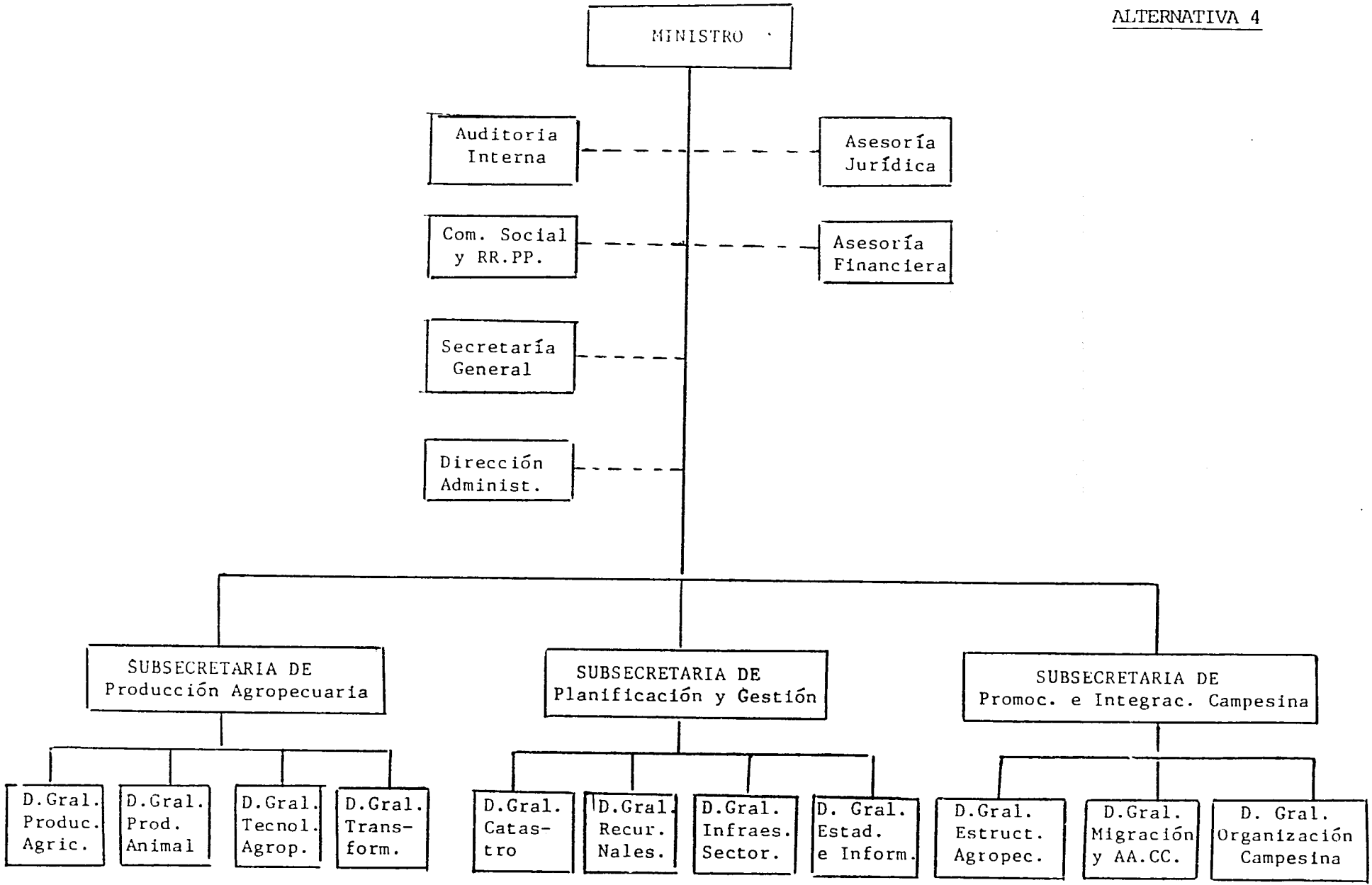
ALTERNATIVA 2



ALTERNATIVA 3



ALTERNATIVA 4



MACA-MICRO

ESTRUCTURA ORGANICA FUNCIONAL DEL SECTOR PUBLICO AGROPECUARIO

1.0 ORGANO CENTRAL

1.1 MAXIMA DECISION

01 MINISTRO ASUNTOS CAMPESINOS Y AGROP.

1.2 CONSULTIVO NACIONAL

02 CONSEJO NAL. DES AGROP

03 CONSEJO NAL. COORD EJEC

1.3 ASESORIA (D) Y APOYO (I)

011 ADMINISTRACION GRAL

013 COMUNICACION SOCIAL

016 AUDITORIA

017 SECRETARIA GRAL Y RR.PP

012 ASESORIA GRAL.

014 A. JURIDICA

1.4 DECISION SECTORIAL FUNCIONAL

04 SUBSECRETARIA DESARROLLO RURAL

05 SUBSECRETARIA PLANIFIC. Y GESTION

04 SUBSECRETARIA DESARROLLO AGROP

1.5 TECNICO OPERATIVO NORMATIVO

DESARROLLO RURAL Y ORG PRODUCT 041
- D. RURAL 411
- D. PRODUCT 412

USO DE LA TIERRA 042
- EMPADRONAM 421
- ASENTAM HUM 422

TRABAJO Y JUST CAMP 043
- TRABAJO 431
- J. CAMPESINA 432

COMUNICACION SOCIAL TEC 044
- BIBLIOTECA 441

PLANIFICACION SECTORIAL 051
- PLANIFICAC. 511
- PROGRAMAC. 512
- PROYECTOS 513
- ESTADISTICA 514

COORDINACION Y CONCERT. 052
- NACIONAL 521
- DEPARTAMEN 522

COOP. INTERNC. 053
- C. INTERNAC. 531

ADMINISTRAC. GENERAL 054
- CONTABILID. 541
- PERSONAL 542

RECURSOS NAT RENOV 061
- IND. AULICOS 611
- SUELOS 612
- R. HIDROBIOL 613

AGRICOLA 062
- S. VEGETAL 621
- SEMILLAS 622
- TEC. MECANIZ. 623

PECUARIA 063
- S. ANIMAL 631
- TECN. PECUAR 632

FORESTAL 064
- BOSQUES 641
- FLORA-FAUNA 642

MERCADEO Y TRANSF 065
- C. INTERNA 651
- C. EXTERNA 652
- S. INFORMAC 653
- TRANSFOR 654

2.0 DESCONCENTRADO

POTOSI 5010 | SUCRE 5011 | COCHABAMBA 5012 | ORURO 5013 | LA PAZ 5014 | PANDO 5015 | BENI 5016 | SANTA CRUZ 5017 | TARIJA 5018

2.1 CONSULTIVO DEPARTAMENTAL

- C.D.D. AP 0211
- C.D.C. EJEC 0511
- C.D.D. AP 0214
- C.D.C. EJEC 0514
- C.D.D. AP 0217
- C.D.C. EJEC 0517

3.0 PUBLICO DESCENTRALIZADO AUTONOMO

- CNRA 4001
- INC 4002
- SNDC 4003
- IDRA 4004
- INFOL 4005
- BAB 5001
- CDF 6001
- CDP 6002
- IBTA 6003
- SENARB 6004
- CIAT 6005

(*) UNIDADES DE NUEVA CREACION

(●) UNIDADES PRE-EXISTENTES

La Paz - Bolivia, 15 de Junio 1987

MCRRSTO02 VII

Final Design:

The four structural alternatives show graphically how the image-objectives' concepts of MACA could be reflected operationally. The fifth chart is the final "authoritative" structural concept which MACA has decided to adopt, though as of this writing that also will necessarily undergo some changes since the government has passed a law which places "cocaine affairs" within the new MACA organization.

Even though this will probably result in additional structural changes, we are still able to make concrete observations concerning the structural aspects of MACA so far because the Subsecretariat of Planning still forms part of the new organizational structure. It will be precisely this subsecretariat which interests us most, since it is only through a central planning organization that MACA can hope to pin their hopes of reform.

3. Inherent Limitations Confronting MACA Restructuring

So far it can be seen that MACA has established a new structure according to ministry policy guidelines. Nonetheless, there are a number of basic restrictions MACA must face and prepare for as it gets closer to the actual implementation phase of reconstruction. These should be examined as part of the analysis of the MACA structural proposal.

The principal restrictions are a mixture of actual restructuring implementation, economic realities, and political/image-purpose restrictions which exist at the moment. For example, present agricultural policy does not exactly dovetail with the economic policies of the moment. The government has adopted a free pricing market dedicated to opening export markets while the agricultural sector lacks policies and laws which can provide incentives, technical development, and marketing of its products.

The principal inhibiting factors which will need to be concretely addressed are: depressed industries in mining and oil; low harvest capability; exportation focus without a policy for import substitution; and little to no domestic or international marketing know-how.

A further example is the regional power enjoyed by the decentralized agricultural sector organizations. While the decentralized organizations grew up in order to fill a void which the weak and overly-politicized MACA never fulfilled, this has now led to a situation where complex functional understandings and even laws will be required in order to keep what is valuable and functional within the decentralized organizations. This has

to be accomplished while simultaneously providing for a strengthened sector-wide MACA.

In addition, the establishment of MACA as a normative entity, charged with determining policies and procedures for the agricultural sector while simultaneously leaving the operational aspects within the decentralized organizations, will require a fine diplomatic balancing act. The decentralized organizations claim rather vociferously that a strong, normative MACA is needed, yet they similarly recognize that this will result in their no longer being able to be free agents for development project planning and contracting. This is certain to cause resistance when restructuring implementation begins.

Not to be overlooked is the political fact of life reflected in the structural design of the new MACA. No matter what the technocrats and advisors can design or recommend for the organizational structure of MACA, it must always be a structural design which satisfactorily reflects the philosophy, the ideas, and the wishes of the government.

This last limitation is not inherently bad. It is more realistic when analyzing the structural design itself. That is, one must realize that certain design aspects have to be less-than-perfect, technically. Even though those are the givens, the following observations and recommendations may be made:

4. <u>What the Structural Design Does/Does Not Achieve</u>

As stated earlier, there are inherent problems facing the restructuring attempts of the MACA. There are also inherent weaknesses in the structural design which should be examined, the most obvious being the recent decree which places cocaine affairs under the MACA. Not only will this unfavorably alter the balanced design that the MACA administrative structure has achieved, but it also will negatively affect the limited financial and human resources available to the MACA. In a ministry which is totally impoverished in nearly every aspect, the intromission of such a huge technical/social responsibility, with extremely important domestic and international financial and political implications, can only distract MACA from its true goals. It will certainly prove to be a drain on MACA resources.

Realistically, one must place this decision among the givens and concentrate on the practical, technical, and administrative aspects of the restructuring design of the MACA to date.

In May 1987, the Minister of Agriculture restated the objectives which the restructuring was to follow. Some of the statements echo earlier appreciations, while others (indicated by *) are newly declared goals:

- o Modernize the MACA.
- o Increase sector production and productivity.
- o Emphasize the normative/fiscalization functions of MACA.
- o Reduce risks to the producer.*
- o Eliminate high-risk State enterprises.*
- o Increase farmer participation.*
- o Rationalize substantially the agricultural sector personnel.

The final design (see chart p. 30), which has quite satisfactorily incorporated the best parts of the four preliminary designs, especially drawing off the designs 2 and 4, has finally presented an organic structure which divides the MACA into two broad activity areas: the socio-political and the technical-productive.

This is probably the most intelligent manner in which to proceed, for it will allow MACA to group its scarce human resources into a more intense professional focus. This could aid in reducing diffusion of materiel and manpower.

The structural design of MACA (while trying to ignore the possible changes from cocaine affairs) achieves a number of positive technical and administrative aspects. The restructuring:

- o Does respond to the need to have an executive function dedicated to technical/production requirements. The marketing functions under the Subsecretariat of Agricultural Development support this goal.

- o Does reduce the risk to the producer with the incorporation of a marketing and central, normative function in the Subsecretariat of Planning.

- o Does allow for a normative MACA; that is a MACA that concentrates on policy issues.

- o Does modernize MACA by slowly moving away from juridical campesino affairs and by anticipating the implementation of a strong data systems department within the Subsecretariat of Planning.

- o Does respond to a balanced administrative structure. (Again, cocaine affairs is the exception.)

- o Does intelligently consider activity areas as the best way to rationalize MACA's scarce material and human resources.

- o Does retain operative functions for the decentralized organizations.

- Does recognize the logic of establishing La Paz as a legitimate agricultural region.

- Does anticipate regrouping the decentralized organizations into logical functional areas under their respective subsecretariats.

- Does have a reasonable concept of which offices should serve as advisory units to the minister.

- Does begin to depoliticize the MACA by removing Campesino Legal Advisory Affairs out of the operational area of the Subsecretary of Rural Development.

- Does aim for a global restructuring of MACA insofar as MACA is establishing statutes with which to legally implement itself as a normative, central planning body for the decentralized organizations.

- Does recognize the problem of credit by placing the Banco Agrícola (BAB) in liaison with the Subsecretary of Planning.

The structural design of MACA does not achieve a number of technical and administrative aspects. These include:

- Does not depoliticize MACA to the ideal level. Rural-juridical matters under the Subsecretariat of Rural Development (the offices of Campesino Labor and Justice) would seem better located within the Ministry of Labor.

- Does not depoliticize if cocaine affairs is brought in.

- Does not structurally demonstrate a smaller, less bureaucratic MACA.

- Does not (yet) show the sector-wide concept of a restructured MACA.

- Does not seem to require the advisory role of general administration. If the subsecretariat operates effectively at its level, the administration director should not require a more direct line to the minister.

- Does not have the structural or manpower strength to absorb another subsecretariat such as the cocaine affairs.

The above-mentioned reconstruction work accomplished to date has been the responsibility of a parallel administrative group, "MICRO". In order to make pertinent observations and recommendations on the MACA reconstruction, it is necessary to understand the MICRO and its work.

C. MICRO-Origins, Purpose, and Accomplishments

1. Origins and Purpose of MICRO

As mentioned in previous pages, the MACA has seen the coming and going of several attempts at restructuring. A great deal of valuable input was obtained across the past years, some from internal sources and a great deal from international advisory sources such as USAID and consultancy organizations attached to the USAID/Bolivia mission. However, the moment was never propitious for turning these reorganization studies into reality. The studies repeatedly were judged according to political considerations. The organizational-idealogical proposals never quite fit the political realities of the moment within the MACA or within the government overall. The studies and proposals were basically shelved.

Nonetheless, with the arrival of the present government, which rode in on the worst economic disaster Bolivia has seen, came an infusion of attitudes and ideas which have made public institution reform both desireable and necessary. Overall it was felt that certain economic measures which were being taken required the institutional support of Bolivia's public sector. The Bolivian public sector was recognized as inefficient, overstaffed with inept workers, and too politicized. With a public sector profile of this kind, the emergency economic measures, as well as the medium-range planning which the government felt was necessary, could only be partially successful.

MACA, for the basic reasons explained earlier, fit the profile of a public institution in sore need of reform and restructuring, but totally incapable of carrying out its own reform. It lacked both financial resources as well as manpower and authority of sufficient quality and quantity to embark on such an ambitious restructuring project.

Not long after taking power, the President of Bolivia, Dr. Victor Paz Estenssoro charged the Minister of Agriculture with reforming MACA. The reform was to draw on previous studies and was reinforced with the creation of "MICRO" - "Mecanismo Interno de Coordinación de la Reestructuración Orgánica del MACA". Ministerial Resolution 265/86 of August 31, 1986, together with financing of USAID/BOLIVIA through the Letter of Understanding #16 of July 17, 1986, and through PL-480 financing, made the MICRO official and operational.

Thus, the present MACA restructuring work began officially on August 1, 1986, with the MICRO as a parallel administrative organization to MACA, responsible for the design and implementation of the MACA restructuring. The final phase of MICRO's work is due August 31, 1987, and will contain the

definitive versions of MACA restructuring priorities as well as a concise plan of actions for implementing the first phases of MACA restructuring throughout the agricultural sector.

2. MICRO Accomplishments

There have been several MICRO accomplishments in the past year. MICRO has produced several studies which have provided data for decision-making in the MACA restructuring. For example, it has created an executive administration. Too, it has implemented consultation work by the Instituto Boliviano de Estudios Empresariales (IBEE) and the FAO. Of primary importance, MICRO has grouped together a talented team of knowledgeable and results-oriented experts to design the MACA reconstruction.

This team, consisting of 35 persons, is responsible for establishing all the basic concepts on which the MACA restructuring will take place. Though the image-objective and the actual organizational structure will reflect the government's "style", as indicated earlier, the technical inputs as well as many of the legalities involved in creating a reconstructed MACA, have all come from the MICRO team. There is a large list of studies, analyses, reports, forums, etc. which could be added to these MICRO accomplishments. However, this would be just a quantitative listing. What is important here are the MICRO's qualitative accomplishments.

One of the most important of these has been MICRO's success in having MACA set goals, purposes, and plans for the MACA reconstruction. In this context, the MICRO has also imparted the concept of planned budget spending to MACA. It is important to realize the significance of MACA's acceptance of program planning and spending because, if MACA ever hopes to become a normative central planning organization, these concepts will constitute the basic inputs of their administrative requirements. Without these abilities, MACA will continue to fail.

Both MICRO's achievements and shortcomings are due to its status as a parallel administrative entity "attached" to the MACA. In this context, the MICRO team functions as an advisory team to MACA, with access to the minister and subsecretary. It is not administratively responsible to MACA except in the strict terms of serving MACA as an advisory body. This has not always been an easy role to play, since the minister and subsecretary have frequently utilized the MICRO team to perform routine MACA business.

Herein is the Achilles' heel of the present status of MICRO. The team has an advisory function and is attached to MACA for the purposes of planning and implementing MACA's restructuring. Nevertheless, MACA and the minister may be tempted to use the

group in other-than-reconstruction business. Another aspect which is not yet a problem, but which is likely to become one, is that MICRO has become a full-blown administrative organization with a life of its own. There are design specialists and drafters; office staff; computer personnel; and internal, external, and foreign advisors in the organization. Yet, very few of the 35 employees in MICRO have solid public administration experience.

In synthesis, though the MICRO has functioned well up to now, there are inherent structural and functional problems to be addressed in order to have the wherewithal with which to actually implement the MACA reconstruction. It will be necessary to:

- o Pare down the MICRO team to one of strictly high-powered advisors with a minimum support staff.
- o Keep the MICRO work exclusively dedicated to reconstruction of MACA.
- o Have direct access to the highest MACA decision-making circles.
- o Equip the team with pragmatic experts in Bolivian public administration, agricultural policy and law, marketing, and economics.

3. MICRO Human Resources Issue for Reconstructing MACA

In looking over these general accomplishments of MICRO, it is important that MACA realize that establishing image-objectives is only the first aspect. Implementing any one of these MICRO initiatives will become a testing ground for MACA's ability to translate ideas into actions, especially those which dovetail with national policy, national economic priorities, and especially, the law.

For example, MACA is intending to seriously reduce and redistribute its personnel in order to achieve the image-objective of a modern MACA; an efficient, service-oriented MACA; and a MACA with a rationally distributed personnel. (Refer to the charts showing present MACA personnel configuration p. 17 - 20.)

In effect, there is talk about releasing personnel with indemnities, providing early retirement to personnel, and reassigning personnel. MACA is considering payment schemes and a salary plan to guarantee certain improvements in pay scales for personnel who stay in MACA. The theory is that with less personnel aboard, the remaining sector personnel together with the special, technically qualified personnel which must be hired,

will be able to enjoy better salaries. MACA's administrative and technical efficiency would thus be improved.

It should be emphasized that, although MACA is confidently discussing the above, and though it has carried out a general study of MACA personnel (see charts p. 17 - 20), the MICRO has not yet produced a specific plan for reducing personnel on the one hand and hire on the other.

It is easier to imagine how MACA will reduce its ranks of administrative-support personnel, compared to the question, "From where is MACA going to get the talent necessary for restructuring?" One answer is it will come from outside technical assistance; however, this answer begs the question, for the government's goal is to create an efficient MACA which will support a self-sufficient agricultural sector. Obviously, then, MACA will have to draw from several sources: from within itself, from within the general public sector, from the private sector talent available in-country, and from in-country professional and academic circles. Though outside technical support can and must be provided, it can neither fulfill MACA's high-demand for capable personnel nor its need for specialized career personnel.

One example which illustrates this "fire and hire" dichotomy is seen in the plan to create a new MACA Subsecretariat of Planning. (Refer to the charts on MACA structure designs pp. 17 to 20.) MACA knows that a Subsecretariat of Planning implies new talent. MACA has, historically, never had a viable central planning group capable of setting policies and procedures for a central office, let alone for an entire agricultural sector. MACA also realizes that an administrative configuration of 370 employees of which some 80 percent are administrative support personnel will not produce anything worthwhile. (See attached charts, pp. 17 - 20.) Therefore, MACA is up against its first implementation problem: substantial numbers of the inflated administrative support group will have to go, and new personnel will have to be hired, first to create the Subsecretariat of Planning and then to operate it. The Subsecretariat of Planning must begin almost immediately to create a series of policies and procedures by which MACA will become the normative rector for the entire sector. The level of expertise necessary for this challenging work is clearly very high.

That MICRO will have to design a coherent hiring scheme for MACA is clear. However, it is also imperative that MICRO design a socially and legally acceptable plan for reducing present MACA personnel. There is already nervousness among sector employees as they hear numbers which range from 500 - 2,000 employees fired, and even a trimming down of MACA to 90 professionals.

Optimists show how this nervousness has led to personnel resigning from MACA, therefore making the reduction of personnel

easier. Pessimists point out that among the already departing employees are a number of talented individuals who should stay in MACA since they would become key elements for the new MACA.

Those in official circles who portray both sides of the issue point out that, regardless of who leaves MACA, a sparser bureaucracy will allow that ministry to have increased funds to pay better salaries to those employees who would continue working there under the restructuring. The argument is not without its merit, but it fails to take into account certain human resources questions which must be addressed here.

MICRO faces the implementation question as one which must, at all costs, "avoid tossing out the baby with the bath water." This is crucial at all levels, including those in the overpopulated administrative support levels. MACA should, from the start, move cautiously. First, it should contract neutral, outside consultants to make an in-depth human resources inventory. The consultants would study who the sector employees are, where they are functioning in comparison with what their primary and secondary talents are, and then rationally decide who to retain, reassign, retrain, or release in strict accordance with specifically predetermined MACA needs. This is a challenge, admittedly, but retaining viable talent within the sector must be a priority. It is also important for the sector to avoid inflating the unemployment rosters in a manner which could cause uneasiness or unrest on the labor front. (Possible labor unrest does not seem to concern MACA officials at this point, though the advisors feel that MICRO should prepare the MACA restructuring with this unknown quantity firmly in mind.)

The human resources problems facing the MACA reconstruction have been addressed here as priority considerations for the MICRO. Naturally, the MICRO reconstruction work cannot contemplate only MACA central. It must be a sector-wide effort. Therefore, the following section will concern the decentralized institutions. A close look will be taken at their problems and at ways in which the MICRO must include them in the reconstruction of MACA. A later section of this report will explore the role training should play in addressing the widespread institutional and human resources problems confronting the reconstruction effort.

D. Decentralized Organizations

At the time of this report, the reorganization of the MACA contemplates realigning the eleven (counting the Banco Agrícola de Bolivia - BAB) decentralized institutes under the new Subsecretariats of Rural Development and of Agricultural Development (see charts p. 38) In addition to realignment, MACA will consolidate the decentralized institutes, since several are

performing overlapping functions. It is the goal to have the planning and programming of these institutes fall under the guidance of the new Subsecretary of Planning. (As mentioned earlier, certain laws are being passed at this time to facilitate this aspect of the reorganization.)

Visits to the institute's offices have permitted a determination of critical needs, some of which warrant specific mention and recommendation for support by the USAID/Bolivia mission.

Reference to the chart on the next page will provide an appreciation of the priority problem areas which the institutes themselves have underlined. There is a definite frequency with which the common problems are mentioned. Though it is clearly not possible to address all the problems of the institutes, there are, indeed, certain specific areas where USAID could support and where significant, lasting impact can be obtained. It is felt that these potential project areas are valid regardless of the form in which the MACA does or does not consolidate or combine the institutes within the MACA restructuring.

DECENTRALIZED ORGANIZATIONS - PROFILE OF PROBLEMS AREAS

Problem / Institute	Poor/non existant Central MACA policies; procedures	Poor/non existant inter/intra institutional communications & with MACA Central	Poor/non existant Central MACA decision-making	Insufficient number of qualified personnel	Inadequate Training for Personnel	Low Salaries	Marketing & Commercialization support	Lack of adequate funding for urgent projects and urgently needed equipment	Inadequate flow of funds on timely basis
BAB	X	X		X	X	X	X	X	X
CDF	X	X	X	X	X	X	X	X	X
CDP	X			X	X	X	X	X	
CNS		X	X	X					
IBTA	X	X	X	X	X	X	X		
IDRA	X	X	X				X		X
INC	X	X	X	X		X		X	
INFOL	X	X	X		X	X	X	X	
SNDC	X	X	X	X	X	X	X	X	

1. Seed Program

Agricultural production requires a number of support services such as input supply, credit, marketing, and other technical assistance for improved production. These services have been lacking for the average Bolivian farmer. One notable exception has been in the seed industry. As one of the basic inputs into the production of crops, improved and clean seed perform a crucial role in success or failure of the farm enterprise.

A number of mechanisms are now in place to assist the seed industry and at the same time insure that MACA can perform an overall policy role that could be useful to the development of a viable national seed program. Further support by USAID of these national and regional entities will be expanded upon elsewhere in this paper. Suffice it for now to mention that the seed industry area is a good example of private and public sector cooperation. This is carried out by the following institutions:

a. National Seed Council (NSC)

Located within MACA, the council is comprised of twelve directors--six from the private sector and six from the public sector. The council acts as the coordinating body for the Regional Seed Councils as well as the liaison between MACA and the regions. One of the important steps of the council has been to draft and obtain approval by the Congress of a new seed law in December 1986. This law sets forth the regulations covering all aspects of the production,processing and internal and external distribution of seeds. It also sets forth the methods whereby seeds are certified. The National Seed Council is one of the most effective of the decentralized organizations. This is due to the fact that it has a well trained group of professionals, small in number, that work very closely with the private sector in the regions. This is not to say that the Council is without problems. There are needs, especially in the number of qualified technicians. More are needed as the demand for certified seed is expanded, but this can be covered by training courses (see recommendations).

b. Regional Seed Councils

The are six regional seed councils, these being located in Santa Cruz, Cochabamba, Potosí, Chuquisaca, Tarija, and the Gran Chaco. They function for their members as seed certification units, performing all kinds of services for seed growers and distributors. They will produce, multiply, clean, certify, and distribute seed for their members in return for a service fee. Foundation seed is obtained from the research programs of IBTA or CIAT. This system has been highly

successful. It has satisfied, in a few short years, the Bolivian demand for high quality seeds for soybean, rice, corn, cotton, beans,and part of the wheat demand. It has caused Bolivia to turn from a net importer of seed to during times of surplus, an exporter of certain seed, such as soybean seed to Brazil.

The regional seed councils receive on the average of 60 percent of their funding from private sources, ranging from 95 percent in Santa Cruz to 5 percent in Potosí. Much of the credit for commercial seed growers comes from PL-480. This is because both the Agricultural Development Bank and the private commercial banks demand high collateral. The BAB claims it will be changing this policy in the future (refer to section on BAB). There are also other needs. More high quality potato seed need to be grown on a commercial basis, especially in the altiplano.

Though there are inherent problems still to be worked out in the Seed Council, of all the institutions visited, this organization is working better than any other.

Nonetheless, the Seed Councils have a serious lack of highly trained specialists. They are in a quandary common to groups who must train their professionals. When they release the few professionals they have for out-of-country studies, they seriously deplete their staff.

It is recommended that USAID support the need of the Seed Councils to send three of their six professionals out of country for masters degrees. Simultaneously, it is recommended that TA experts be provided the Seed Council during the time their professionals are out of country, thereby compensating for their absence. The training is envisioned for areas where the NSC is weakest--Cochabamba, Potosí, La Paz, and Tarija.

The three masters candidates should be considered by either Mississippi State University (where there already are linkages with the Seed Council) or Oregon State-Corvallis. The mission would request T.A. from Mississippi State for the time the masters candidates were studying, on a programmed year-to-year basis or on an as-need basis. This T.A. support would provide further technical training to the T.A. envisioned from CIAT of Colombia, CETREICEM of Brazil, and others.

In addition to the above, the Seed Council personnel should receive train-the-trainer courses with IDEA. The Seed Council has expressed the desire and ability to train other institutes in their administrative/commercial know-how and success. If the Seed Council personnel were trained in how to teach effectively, their technology transfer abilities could be positively felt within the other institutes that would stand to benefit greatly from their input.

Not only would this create in-house training capability, but it would also spread the model of the Seed Council with a multiplier effect. That is, every entity which adopted the Seed Council model would in turn be able to provide technology transfer to other entities within the agriculture sector where the Seed Council model would be desireable. This would guarantee an evolution of The Seed Council model concepts within the sector.

2. I.B.T.A

This institution provides agricultural research and extension nationwide (with the exception of the Santa Cruz area which is provided by C.I.A.T.).

I.B.T.A. at present has fifteen Experimental Stations and eight nurseries.

It has a staff of 122 extensionists and 150 researchers. IBTA estimates each extensionist (who, incidently, is a generalist) serves 4,500 farmers.

The budget for 1987 was approximately Bs7.5 million or $3.75 million. Personnel, especially professional researchers are grossly underpaid. IBTA has not been able to keep a Ph.D. on the payroll and has only twenty researchers with Master's Degree. This organization is not very effective in terms of conducting useful and viable research and getting it into the hands of producers.

IBTA needs to upgrade its present staff and hire more qualified professionals. It needs to hire two highly qualified research administrators (preferably with private sector production experience) to take over the top two jobs as the heads of IBTA. IBTA needs additional equipment for its extension personnel such as four-wheel drive vehicles. It needs to double the number of extension agents to 244 and train them to become extension specialists in a particular commodity. Each agent should have training in communications.

IBTA should narrow its focus and concentrate only on six commodities. These would be potatoes, rice, corn, livestock (including poultry), soybeans, and wheat. The rationale for concentrating on a limited number of commodities would allow I.B.T.A. to bring to bear a critical mass of resources (i.e.;technically qualified researchers, budget and equipment) upon a few key commodities in order to bring about increased production results in the shortest possible time. The rationale for these particular six crops is that they are primary and basic food commodities that provide domestic foodstuffs and or a cash crop for Bolivian farmers. They are also the most widely grown by the greatest number of farmers, large and small, and at present, the

economically most viable crops produced in Bolivia. The third reason is that these crops represent a geographic spread, allowing I.B.T.A. to address agricultural prodution problems in all regions of Bolivia as a key aspect of MACA's research priorities.

Researchers and extension specialists would be part of an in-depth commodity team headed by a technical team leader.

For example, the potato team would consist of:

- o Plant Breeders
- o Entomologists
- o Soils expert
- o Irrigation expert
- o Marketing Economists
- o Production Economists
- o Extension Specialists

The potato research team and extension personnel would be stationed and work in Potato production areas only. Each commodity would have its own team.

IBTA will have to dismiss its unqualified personnel and use the savings made on the concentration of commodities to raise the salaries of their professional personnel and extension agents.

IBTA has to work closer with the regional seed councils on the production and distribution of basic and botanical seeds. This is not being done at present in the case of potato seeds.

In the case of potatoes, training scholarships should be provided to send a researcher and a potato extension specialist to The Potato Research Center (CIP) in Lima in order to upgrade their capacity. At least five trainees per year should be sent. This could be a joint cooperation venture between USAID/Peru and USAID/Bolivia.

By concentrating its efforts and charging a fee for services IBTA would have a sufficient budget to cover (or nearly cover) their needs (except for training) and would thus become much more effective.

IBTA should more efficiently utilize its existing communications and printing equipment facilities to backstop and support its extentionists.

It is recommended that T.A. for two years in the form of one research administration specialist and one extension specialist be provided under a USAID grant. These individuals can come from either a U.S. land grant college or from one of the International

research centers such as CIP (Potato Institute) in Peru or CIAT in Colombia.

Administrative Training for IBTA administrative and management personnel is covered in the training section of this report.

3. Bolivian Agricultural Bank(BAB)

In order to stimulate the economic and social development of the agricultural sector there is a need to strengthen short and long-term credit for the rural population. Farmers have a continuing demand for short-term production credit, usually for one year or less, and long-term credit for up to four years for the purchase of machinery, breeding stock or infrastructual farm improvements. Historically, credit services in the rural areas of Bolivia have been concentrated among the few medium and large-scale commercial farmers. The peasant population has been largely ignored. This has begun to change, however, during the decade of the eighties increasing amounts of credit from the Central Bank and PL-480 refinancing have been directed towards this later group of farmers. Yet much remains to be done. Less than 10 percent of Bolivian farmers receive credit and most do not have ready access to savings opportunities in financial institutions.

There are three types of financial institutions that provide agricultural credit: a) private commercial banks, b) cooperatives, and c) the Bolivian Agricultural Bank(BAB). The most important to the small farmer has been the BAB. The bulk of the commercial bank portfolio is directed towards large and medium scale farmers. In contrast, three quarters of BAB loans were directed to small farmers, a total of 18,000 farmers. In the future, due to Supreme Decree # 21660, the bulk, if not all BAB loans will be made to small farmers. To ensure that this will happen, article 104 states that loans to individuals cannot exceed 50,000 Bolivianos and loans to cooperatives cannot exceed one million Bolivianos.

The BAB is an institution with characteristics that would permit it to serve as a development bank for small farmers. It has 51 branch offices throughout the country and it has demonstrated that it can serve large numbers of small farmers. In the near future rural offices and personnel of the Banco de Estado will be transferred to the BAB thus increasing their outreach to the rural community. Mobile bank trucks are being contemplated. BAB admits that they have had a problem in the recovery of loans. They are taking steps to correct this however. They feel that intense training of their professional staff will help remedy this situation.

Decree No. 21660 permits the BAB to undergo a restructuring. Among the benefits it allows BAB to accept deposits and pay interest on same. It also allows the Bank to decentralize its operations and thus cut back on the swollen bureaucracy in La Paz home office. The Decree further strengthens BAB's portfolio by increasing its capital with the recuperation of the banks faulty debts and by having the National Treasury subrogate all of BAB's outstanding debts. BAB needs to computerize its operations in order to become more efficient. It needs to up-grade its professional banking staff through hiring and/or training.

4. Fisheries (Centro de Desarrollo Pesquero - C.D.P.)

Fisheries (C.D.P.) comes under MACA, with a small central office located in La Paz in the MACA building and field offices located in three regions of the country: Altiplano, Amazon Basin and the Plata River Basin. It is estimated that in these three regions that the potential is approximately two hundred thousand tons of fish a year, broken down to 70,000 tons/Amazonas, 100,000 tons/Altiplano and 30,000 tons/Plata. In 1986, only 3,871 tons of fish were taken in the whole country, which represents 1.90 percent. The potential in jobs and nutritional addition for the country plus export are large. C.D.P. has a total of twenty-three staff, nation wide of which eight are technical specialists in fishing. Only one person is a Ph.D professional (biologist). C.D.P. projects a national need of nineteen professional staff if it is going to carry out its mandate. C.D.P.'s present budget is $250,000/year. There are no in-country university-level fisheries courses.

Fisheries is presently being assisted by a Japanese Mission that is investing $5.0 million in a Fishing Research Center in Lake Titicaca to foment trout cultivation.

A British mission in Trinidad assists in the capture and marketing of fish in the Amazon Basin. These refrigerated fish are being sold in the Santa Cruz market and consist of Talapia and other species. Exports to Brazil are being researched from this area. The Pando area has a large potential for domestic consumption and export.

Around Lake Titicaca alone, there are ten thousand families of subsistance level fishermen. These fishermen are under-equipped. Fisheries (C.D.P.) estimates that equipment needed for these groups is the following:

- 3,000 nylon nets, imported at a cost of $50.00 per net. One alternative would be to import the material and fabricate the nets in Bolivia.

o 70 outboard motors of approx. 55 H.P.

o 90 in-board motors approx. 45-55 H.P.

For C.D.P., the needs and budget are as follows:

Training:

2 long term and 2 short term staff per year	$ 60,500.-
2 outboard motors 60 H.P.at $ 3,000 each	6,000.-
2 - 4 wheel Drive Toyota pick-ups at $ 20,000 each	40,000.-
Total	$ 106,000.-

5. Forestry (Centro de Desarrollo Forestal - CDF)

There are but 30 professionals in the CDF. Five geographic departments, which account for 50 percent of Bolivia's land area, have forestry specialist.

There are approximately 6,000 km. of forested borders with Brazil without a single forest ranger present to control encroachments of Brazilian lumberers in Bolivian forests.

In addition to this acute shortage, Bolivia does not know exactly what their actual forest reserves are. The last aerial survey was done in 1978. CDF is hoping to obtain funds to finish and publish a recent aerial survey.

In agricultural/administrative aspects, CDF works in isolation. There is little to no inter/intra institute communication or cooperation. CDF has overlapping interests and responsibilities with Fisheries, Colonization, and with IBTA (Institute of Agricultural Technology).

As a further example of conditions in Forestry, it has been observed that not even the private Bolivian lumber companies are well organized. They suffer from manpower shortages and have not tried to tempt away the competent professionals who work in CDF.

In synthesis, with about 51 percent of Bolivia's land area consisting of forest cover; with a haphazard fashion of timber removal by private concerns; with no public or private reforestation program, largely due to the lack of MACA policies and controls for effective timberland management; it is recommended that the USAID/Bolivia fund the wrap-up portion of CDF's aerial survey.

6. Rural Settlements (Instituto Nacional de Colonizacion - INC)

The INC is in charge of township settlements and settlement titles. They have previously been beneficiaries of BID and USAID projects, such as the USAID "Proyecto de San Julián" which was suspended in 1980

INC has 206 employees nation wide, 100 of whom are in La Paz. Despite the fact that their responsibilities are to "oversee" the colonized zones and to process land titles for the township settlements, INC has neither financial nor human resources for keeping up with the settlements which are being formed throughout the country. As a result, INC do not know how many persons have settled where, what services they do or do not have, nor what kind of health conditions prevail. Of the estimated 110,000 families which have settled on both authorized and unauthorized lands, INC has processed only about 15% of the land titles. One of the basic problems is that INC does not have a vehicle for getting about to the regions.

INC's priority at this point is to make an analysis of the present situation in the settlements ("colonizaciones"), assessing the situation nation wide. This is important in order to establish land titles; land cannot legitimately be bought or given since it already is claimed or belongs to other organizations or individuals. Once this is established, INC will be in a condition to evaluate priority projects and to form a national land title program in accordance with facts gathered in their diagnosis of the present situation.

To carry out this study INC will require funding of $10,000, to pay its own personnel and the task force staff in the schools, in the field, and in the radio networks. Funding also will cover materials and tabulation of the collected data. Purchase of, or at least access to, two vehicles is required for work in the regions.

7. Institute for the Promotion of Wool (INFOL)

The needs of INFOL are varied and very dispersed. Because of the large numbers of llamas in Bolivia, and a good potential for increasing the vicuna and alpaca populations, all of which are unique natural resources to this area, the advisors recommend that further conversations with INFOL be promoted, preferably with experts in the subject, to determine what kinds of specific programs would have a permanent impact on Bolivia's alpaca wool producing sector. Because Bolivia's alpaca exports are so far below the capacity of foreign market's interest potential in alpaca, the advisors also feel that a marketing survey be carried out to help with Bolivia's export potential. Also, given that there are more than 2 million llamas in Bolivia,

a study to determine llama wool potential and llama meat as a protein source, is also recommended.

E. PL-480

The PL 480 Title III program plays an important role in the Bolivian agricultural sector. Because of the size of the fund, i.e., $20.0 million each in 1986,1987 and another $20.0 million to be negotiated for 1988, the impact on the sector is considerable. Coupled with the flexibility of the fund, projects in both the public and private sectors have come to fruition. The PL 480 program is especially important in providing links with the private sector. The following brief outline shows a number of these projects and their importance to the assessment of the future of the MACA and its decentralized institutions. The PL 480 should continue to be used by USAID as an important tool in the decentralization process and the linking of agro-industrial and export production projects to MACA support policy.

Present Situation

The situation of PL 480 as it presently stands with regard to MACA is as stated in the 1987 Amendment:

Amount: $500,000.

Technical and financial assistance is being provided to the MACA to support its efforts to restructure this Ministry to enable it to become more efficient and responsive to the agricultural development needs of the country. This includes an analysis and evaluation of the reorganization proposals being developed by the MACA advisory unit (MICRO) which has been established within MACA. Reorganization proposals detail the financial and budgetary needs of MACA, the role of the private sector in agricultural development, reorganization cost estimates, recommendations on how MACA should be restructured, agricultural policy objectives, staffing requirments, and training needs.

The amendment gives emphasis to a decentralization effort MACA so as to ensure that regional public and private sector groups work effectively together. Regional agricultural councils will be created in the various departments. These councils will be the focal point of agricultural activities in the regions and will play a key role in a reorganized and decentralized MACA.

According to the amended agreement, Title III reflows will be used to provide budgetary support for the MICRO, the regional agricultural councils and other reorganization efforts.

Other PL 480 Financing:

There are a number of other initiatives in the agricultural sector presently being financed by the 1986 Agreement and the 1987 Amendment. These initiatives play an especially important role in the overall decentralization of the new MACA as well as the increasing importance now being placed on the private sector in Bolivian agricultural production.

- Agroindustrial and Artisanry Credits to Small and Medium Size Enterprises

Amount: $4.5 million

Provides agroindustrial credit to small and medium sized agro-processing firms, agricultural input manufacturing enterprises and other agri-services which have clear economic linkages to Bolivian farmers.Loans and technical assistance are provided to qualifying private firms and cooperatives. Loan funds may be used to finance equipment, construction of physical facilities, operating costs, raw materials, or training.

- Strengthening of Producers' Associations

Amount: $2.5 million

Provides organizational, management, technical and start-up assistance to agricultural producers' associations to enable them to provide expanding marketing, technical and agricultural input services to their members. The project provides both loans and grants to producer's associations. Loans are provided to the associations for the purpose of purchasing, selling, or distributing agricultural inputs or products. Grants provide technical assistance,training, or improve the associations' infrastructures and ability to provide effective services to memberships.

- Small Farmer Agricultural and Livestock Production

Amount: $7.5 million

Provides increased availability of agricultural production and marketing credit for small and medium -sized agricultural and livestock producers. Credit will be channeled through qualifying producers' associations, cooperatives,PVOs and private banks. Credit will be both the production short-term variety (maximum 6-12 months) and the long-term type for capital investments such as farm machinery, livestock, productive farm infrastructure and inventory 2-5 years.

- Wheat Production and Marketing

Amount: $2.2 million

Supports private sector activities that alleviate major wheat production and marketing constraints such as: shortage of improved seed; lack of marketing credits; low local prices; lack of experience with high yield wheat production technology. Assistance is channeled through the National Association of Oil Seed Producers(ANAPO) to the Regional Seed Councils in wheat growing areas.

- Research and Extension Systems.

Amount $700,000.

Supports existing studies and forms new private or mixed private/public research and extension systems along the lines of the client directed and supported Tropical Agriculture Research Center(CIAT) in Santa Cruz.

- Preinvestment Studies.

Amount:$450,000.

Finances preparation of feasibility studies for small firms, cooperatives, and producers' associations which later be eligible for financing under the Title III program.

SECTION II

EVALUATION OF MACA/MICRO RECONSTRUCTION

There are a number of encouraging tendencies apparent in the work MICRO has achieved and in the direction in which MICRO is attempting to steer MACA in its reconstruction endeavors. There are also warning signs which must be heeded if the reconstruction is to work. As a synthesis of the previous sections, together with the gist of the recommendations presented later in the training section of this report, this chapter will present recommendations on: where to support the MACA reconstruction; what are the ways to support it; and words of caution on the danger areas.

A. MICRO as the MACA's Extraordinary Parallel Administrative Support

To date, the MICRO has been the sole viable mechanism for the reconstruction of the MACA. In other words, without the MICRO, there would be no present schema for reconstruction. It seems clear, therefore, that the MICRO should continue to be the mechanism through which the reconstruction planning stage will be carried over into the implementation phase of the reconstrution.

To know how to best utilize MICRO, now and in the future, and with what administrative and legal conmfiguration, it is best to first understand the limitations of the MICRO as noted by individuals who have been working in and with this organization since early 1987.

- o MICRO does not have enough experts in public administration, planning, marketing, agricultural economics, or Bolivian Law.

- o MICRO tends to get pulled into MACA daily operations and is not allowed to concentrate on strictly reconstruction matters.

- o MICRO is too heavily staffed thereby committing the same error which they hope to solve in MACA.

- o MICRO has had difficulty in establishing direct reporting lines with the minister of agriculture.

- o MICRO is not staffed or structured properly to take on the technical-operative aspects of the reconstructuring implementation. It is staffed primarily as an analytical advisory body (which, of course, has been its function up to now).

- MICRO has not developed concrete, integral, logical plans for how to go from the schematic phase of the reconstruction to its actual implementation.

- MICRO has not obtained implementation of the legal instruments necessary to move ahead with establishing the new MACA as the normative, central planning organ for the agricultural sector.

- MICRO has concentrated on the organizational structure of MACA and must still come to grips with the brass tacks issues of how to administratively and politically include the decentralized organizations in the sector-wide restructuring which is being professed.

These problems are the types that frequently develop in administrative/executive public sector organizations such as the MICRO. It is felt that, as is, the MICRO would continue to suffer from the same maladies, making the reconstruction of MACA handicapped at best, perhaps even a failure. To overcome these weaknesses, the advisors are convinced that the MICRO must be newly conceived.

B. A New MICRO as a Parastatal or State Corporate Entity

For MICRO to be a viable executive office with both power of decision and freedom from direct ministerial interference, it is recommended that MICRO be modified to become a new, stripped down, purely action-oriented executive parastatal office or state corporation. The basic concept of the MICRO as an extraordinary parallel administrative organ could be retained but modified to allow for a more independent, technically professional and agile organization in charge of planning, implementing, and follow-up of the MACA reconstruction.

A parastatal or state corporate entity of this type would have to be created by Supreme Decree in order to give it the legal authority necessary to carry out its mandate. It would have a life of three years, with an option of two additional years. It would have the authority and responsibility to carry out the restructuring not only of MACA, but also of the decentralized institutions. It would be housed independently of MACA. It would be able to contract T.A. for short or long-term assignments. It would be staffed with a limited number of broad-gauge professionals, among them being an executive director, a macro economist, a planning expert, a legal expert, a marketing expert, and public administration experts with practical experience.

The office would have top-quality secretarial and administrative support.

The general focus of this new MICRO's work would be institutional development of MACA, immediately most concerned with priority implementation of the MACA subsecretary of planning. The new entity would determine the kinds and numbers of consultants necessary to ensure that the MACA restructuring take place within its own lifespan of three years. It would be dedicated to planning, implementation, and follow-up of reconstructuring tasks, and not to studies on the sector. It would be an executive body, not a think tank. Emphasis would be on accomplishments.

In addition to having its own executive director, this entity would have a board of directors comprised of the Ministers of Agriculture, Finance, Planning and Coordination, and Industry, Commerce and Tourism, thereby ensuring continual input to these ministries as well as a working relationship which would ensure expedient cooperation from these four important areas to the agricultural sector. In addition, there would be an advisory board, made up of the major private sector representatives, such as the agricultural chambers and the banking community.

USAID would have a liaison representative with this group in order to ensure that the organization adhered to the goals of MACA reconstruction and the public/private agricultural goals of the sector. The new MICRO would continue to be responsible for reporting to USAID on a regular basis and in furnishing the ministers with regular and timely verbal reports on accomplishments and problems. From time to time, as needed, MICRO would draft legislation that would form the basis for policy changes in those laws and ministerial regulations that, in the professional opinion of MICRO, constitute deterents and/or disincentives to the smooth market flow of agricultural commodities and inputs, or that impede the economic and rural equity of the agricultural sector. MICRO would develop quarterly and yearly status reports to show accomplishments or the reason for lack thereof.

It is envisioned that after its corporate life ends, MICRO and its resources would be absorbed by the MACA sub secretary of planning.

C. Recommendations for MACA's Restructuring by MICRO

With a new, more dynamic MICRO in place, many of the problems of the MACA for implementing the restructuring of MACA would be overcome. The most important problems which MICRO should be prepared to deal with in the implementation phase including the following:

- One of the first things to look cautiously at is the MACA's projected increase of new offices in its reconstruction. These include two advisory councils, two

subsecretariats (not including cocaine affairs) and seven operative offices. (NOTE: See chart at end of this section.

- The concern centers around the danger that these new creations cause MACA to inflate their manpower and increase their bureaucracy rather than slim down to a highly efficient normative entity designed to provide efficient service to the operative agricultural organizations.

- While the creations of the Subsecretary of Planning and of La Paz as an authentic regional agricultural office both obey logic and sector needs, MICRO must ensure that MACA not over-enthusiastically inflate its creations.

- Also of primary concern is the MICRO's still-missing master plan for the implementation of the restructuring of MACA. It has been repeatedly pointed out that there is still no concrete work plan, there are no clear priorities, and there is no clear time frame for the implementation of the restructuring. This must be an absolute priority for MICRO if the restructuring is to achieve credibility and reality. If MICRO fails in this area, the MACA reconstructing will have missed its best opportunity, if not its last.

MICRO must push to establish the subsecretary of planning as the initial task to implement the restructuring.

- A third concern is the question of MACA's releasing and hiring of personnel. A great deal of attention to this issue has been given in hopes of impressing MICRO with the need to "do it right". MICRO must assist the new subsecretariat of planning with a rational, fair, and, above all, professional scheme for releasing, retaining, relocating, and hiring personnel. They must avoid the stampede which occurred in the Banco Central's reorganization. The Banco Central found itself with fewer than 300 personnel and with many of whom had left who wanted to return. The advisors cannot insist too much on this aspect.

- For the MACA restructuring to succeed, MICRO must also concern itself with developing a strong data systems office within the subsecretariat of planning and agricultural development. This data collection and assimilation capability for analysis and decision-making is absolutely crucial in almost all areas of the reconstruction of MACA.

- One of the major complaints of all the decentralized offices concerns MACA's lack of marketing and commercialization capability. MICRO must ensure that MACA be endowed with a strong marketing component which is adequately intercommunicated with the agricultural sector offices which could require the information.

The location of marketing within the subsecretariat of agriculture is correct, since it is the office where MACA will most require fast, accurate, and up-to-date information. Since much of the information captured for agricultural development will be useful to planning, even though perhaps under different formats, it is important that MICRO anticipate establishing good structural links between this function and the subsecretariat of planning. There is no place for divisional or selfish interests when information systems exist. Information is only useful if it is available. (Note: a specific recommendation for a marketing office follows.)

D. Marketing Office

The marketing of most agricultural commodities in Bolivia is antiquated and chaotic. No established system of prices, grades and standards, delivery dates, or market information exists. This results in frequent market gluts and shortages as well as in high post-harvest losses, especially in produce, poultry and fish. The lack of market information is especially acute, forcing farmers to make planting decisions based only on past years experience.

In addition to the above, there is a generalized lack of a marketing infrastructure in the country. This includes a lack of adequate transportation, few all-weather or even adequate farm-to-market roads; lack of proper storage capacity and refrigeration for fresh produce and fish and, finally, a lack of wholesale markets.

Now that the government has taken away the price supports and allowed a free market, there is great pressure on farmers to reduce their high production costs. One way of doing this is for MACA to have a strong marketing office.

This office should be headed by an experienced market individual, someone who has a degree in marketing economics and experience in directing a market information service. The marketing office should have a market statistics section, a grades and standards regulating section, and a market forecasting section. The purpose of the marketing office is not to control a free market, but to provide producers and buyers with information they need on wholesale/retail prices, volume statistics, and market trends to enable them to make economic decisions.

There is an important need for four market professionals. These would include one market economist, one grades & standards specialist, one market news service specialist, and one market statistian & forecaster. If these individuals are not available, they should be recruited and trained. Meanwhile, technical assistance experts could be brought in from the USDA Market News Service or the California Market News Service for a two-year period in order to organize the office. Rules and regulations could be developed and implemented. The T.A. could identify those individuals for training.

Equipment needs include one telex connected to major markets around the country, one computer with MODEM for international market information, one subscription to USDA Market News Information on main commodities grown by Bolivia.

Training is also contemplated in-country utilizing the institutions of the Catholic University, IDEA and IBEE. (See training section.)

E. The Subsecretariat of Planning

The advisors believe that, with a new MICRO in place, the strongest element in the creation of a new MACA is the subsecretariat of planning. An enormous number of developmental items will depend directly on MACA's new planning capability. Therefore, this entity must be staffed with top-flight public administration and technical talent. It must be a well conceived department which commands the respect of the decentralized organizations. As the political/administrative and functional/structural key element of the new MACA, it should be supported.

There are many reasons for which this department is logically and intelligently forseen. Suffice it to say, in synthesis, that it not only captures almost all the image-objectives of the government authorities, but it also obeys common sense administrative norms. This entity will serve as the core group for overcoming the missing inter/intra institutional communications; it will become the focal point for international projects and fundings, planning, and implementation; and it will finally provide the MACA with an identity of substance.

This report has insisted that a viable, restructured MACA depends on a new, revitalized MICRO. The report has also stated that one of the priorities of the new MICRO must be its support of the new subsecretariat of planning since it is through a well-conceived planning area of the restructured MACA that both primary and secondary MACA goals will be achieved.

As part of the advisors' work it was requested that MICRO provide the team with a detailed work plan, to include concrete

priority actions and a budget estimate for the implementation phase of the MACA reconstruction. To date, there has been only one significant input, that being the attached organizational charts and a proposed budget for the new subsecretariat of planning. This was presented by the Planning Office of the present MACA.

This input has been invaluable because it dramatically underlines exactly what kinds of Mission support will be required to both MICRO and MACA if the restructuring is to be any more than a shakedown of offices and personnel.

Specifically, the proposed new subsecretariat of planning is a blueprint for any planning office. It is not the blueprint for the planning office. It is a flexible structure which could be applied to any ministry in any location. It is the creation of a structure, broken down into logical functions which obey a certain vision of how any planning office should be. The proposal also contains a detailed budget envisioning costs for five years for 106 employees 31 percent of whom are support staff; 50 percent of whom are "técnicos"; and 19 percent of whom are directors.

The serious flaw in this proposed structure is that there is no work plan pertaining to the restructuring implementation. There is no purpose, no goal, no plan, and no activities agenda. Therefore, what we have is a structure without a purpose. The proposed subsecretariat of planning does not obey any rationale of specific goals, of specific purpose, of planned activities determined by logically, thoroughly developed ideas of what is required and how to achieve it.

If this approach is allowed to exist in the restructuring of MACA, the advisors see little to no hope of achieving much beyond a new organizational chart for MACA full of people, but empty of purpose and direction.

The actual MACA professes that the new MACA will be a trimmed-down, non-operative organization. The advisors have already cautioned against the possible dangers of MACA's increasing personnel through their creation of new MACA offices. The proposed subsecretariat of planning supports our fears that the restructuring might do exactly that.

As perceived by the advisors, this problem is not one of ability. It is one of vision and approach. The reason for the presentation of a structure for a planning office is because the idea of building an administrative structure to custom-fit a precisely-conceived purpose and plan of action is, simply put, not the way the public administration sees things.

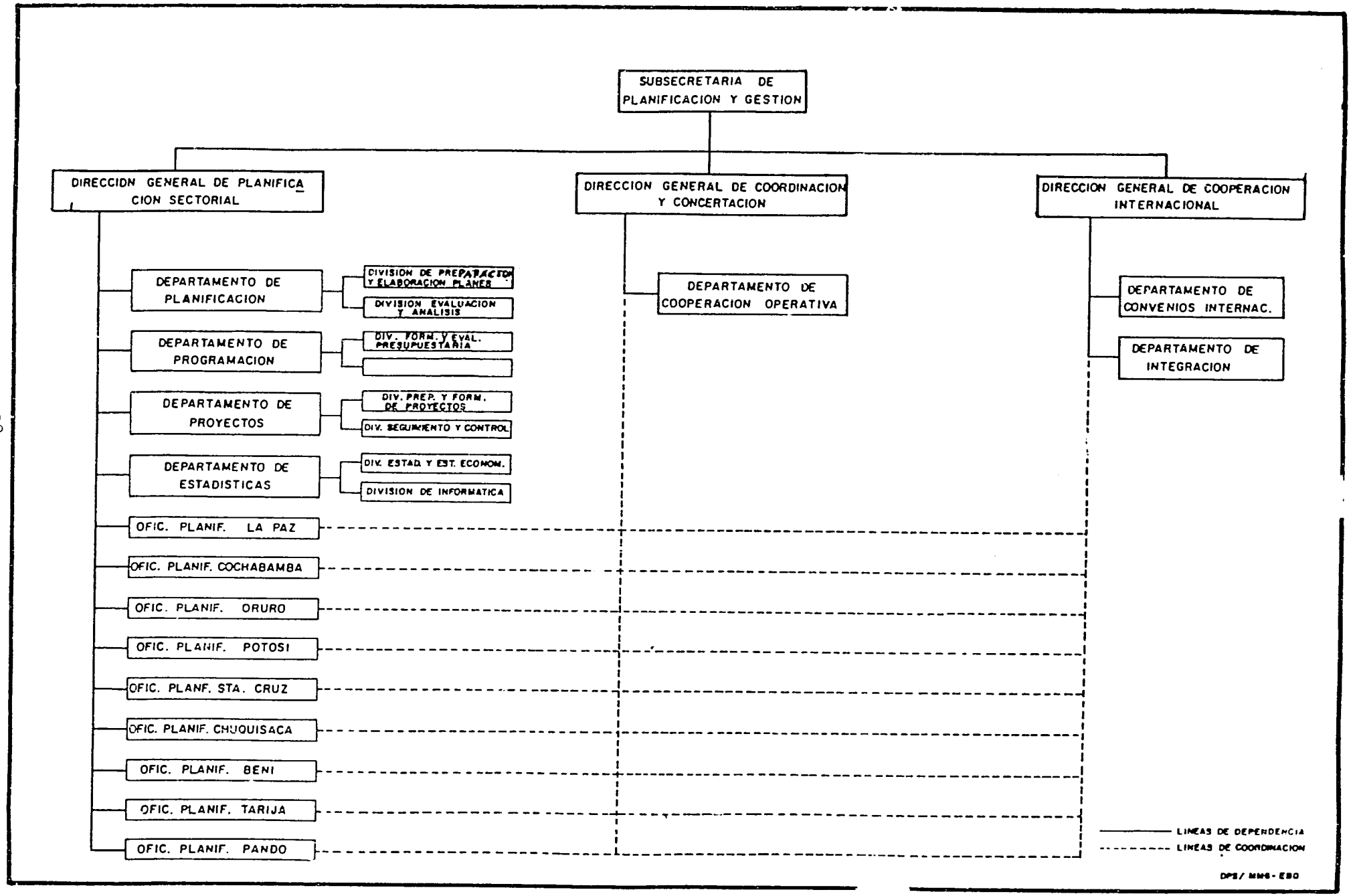
This problem must be dealt with from the start, since it is certain that the "plans" for the overall MACA restructuring will be presented with the same approach void of concept, purpose, and direction but replete with offices and personnel.

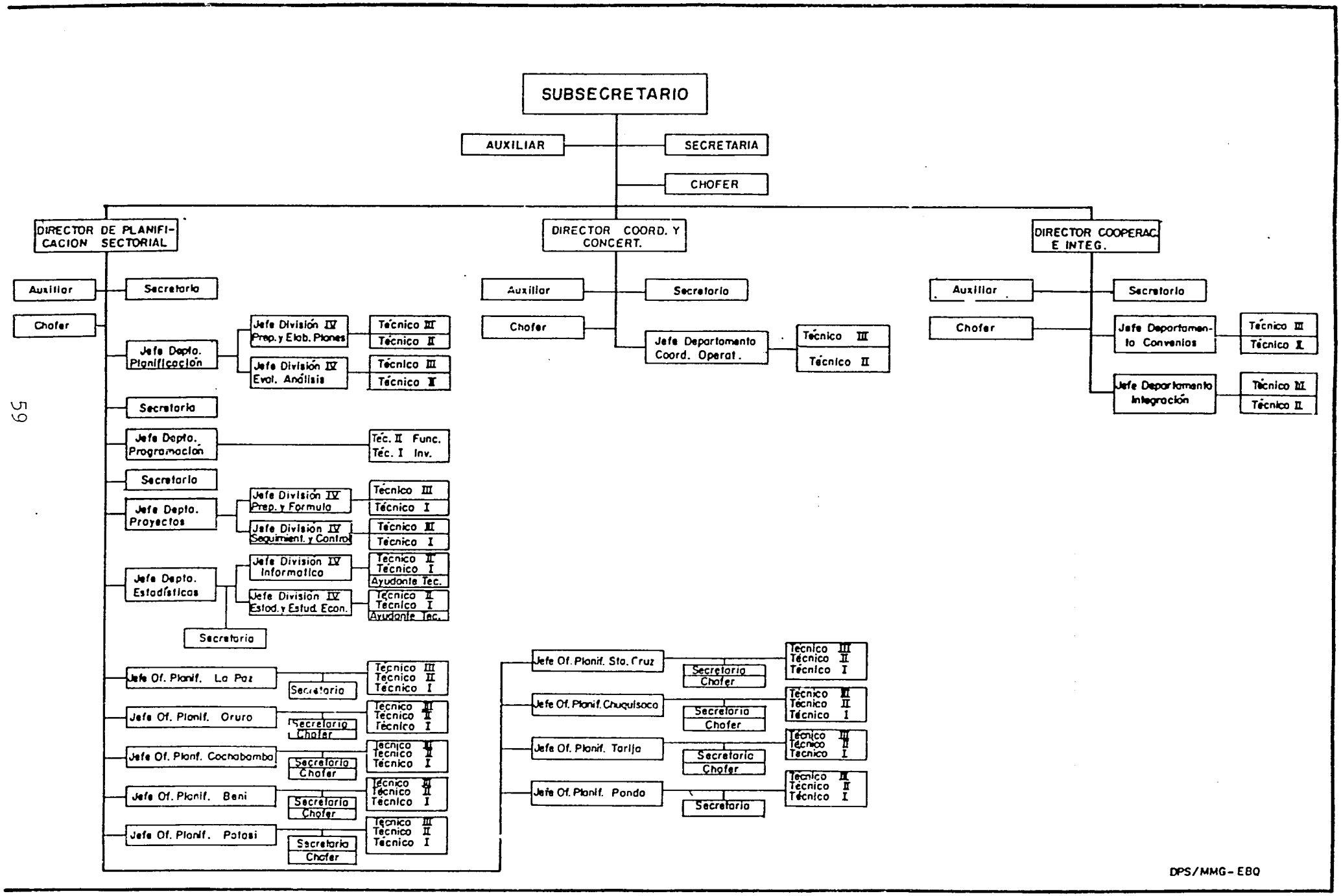
Therefore, it is recommended that:

1) MICRO contract a broad-based Bolivian expert in public and private sector planning and project development/implementation, in charge of forming TA teams who will work hand in hand with MACA personnel to develop their strategy, purpose, and specific short-term and long-term activities for the implementation of the restructuring, with a special emphasis the new subsecretariat of planning.

2) USAID/Bolivia contract three American long-term TA experts to provide sustained guidance and support to the restructuring of MACA. One expert will be the key planning and project development individual assigned to MICRO to provide conceptual direction to the MICRO planning function. A second expert will be assigned directly to the new subsecretariat of planning. A third expert will be assigned to the marketing function of the Subsecretariat of Agricultural Development, with the counterparts being the MICRO's marketing expert (see separate section on marketing recommendations) and Director of Marketing in the Subsecretariat of Agricultural Development.

These American experts should be contracted for a minimum of two years; they should be fully fluent in Spanish, and should be well acquainted with Latin American realities; and they should carry top-flight credentials in <u>hands-on</u> planning/project development and implementation and marketing. A strong blend of private and public sector experience and achievements is desireable, with preference being given to private sector know-how.


SUBSECRETARIA DE PLANIFICACION Y GESTION
DIRECCION GENERAL DE PLANIFICACION SECTORIAL
DIRECCION GENERAL DE COORDINACION Y CONCERTACION
DIRECCION GENERAL DE COOPERACION INTERNACIONAL
DEPARTAMENTO DE PLANIFICACION
DIVISION DE PREPARACION Y ELABORACION PLANES
DIVISION EVALUACION Y ANALISIS
DEPARTAMENTO DE PROGRAMACION
DIV. FORM. Y EVAL. PRESUPUESTARIA
DEPARTAMENTO DE PROYECTOS
DIV. PREP. Y FORM. DE PROYECTOS
DIV. SEGUIMIENTO Y CONTROL
DEPARTAMENTO DE ESTADISTICAS
DIV. ESTAD. Y EST. ECONOM.
DIVISION DE INFORMATICA
OFIC. PLANIF. LA PAZ
OFIC. PLANIF. COCHABAMBA
OFIC. PLANIF. ORURO
OFIC. PLANIF. POTOSI
OFIC. PLANF. STA. CRUZ
OFIC. PLANIF. CHUQUISACA
OFIC. PLANIF. BENI
OFIC. PLANIF. TARIJA
OFIC. PLANIF. PANDO
DEPARTAMENTO DE COOPERACION OPERATIVA
DEPARTAMENTO DE CONVENIOS INTERNAC.
DEPARTAMENTO DE INTEGRACION
LINEAS DE DEPENDENCIA
LINEAS DE COORDINACION
DPS/ MMG - EBO


SUBSECRETARIO
AUXILIAR
SECRETARIA
CHOFER
DIRECTOR DE PLANIFICACION SECTORIAL
Auxiliar
Chofer
Secretaria
Jefe Depto. Planificación
Jefe División IV Prep. y Elab. Planes
Técnico III
Técnico II
Jefe División IV Eval. Análisis
Técnico III
Técnico II
Secretaria
Jefe Depto. Programación
Téc. II Func.
Téc. I Inv.
Secretaria
Jefe Depto. Proyectos
Jefe División IV Prep. y Formula
Técnico III
Técnico I
Jefe División IV Seguimient. y Control
Técnico III
Técnico I
Jefe Depto. Estadísticos
Jefe División IV Informatica
Técnico II
Técnico I
Ayudante Tec.
Jefe División IV Estad. y Estud. Econ.
Técnico II
Técnico I
Ayudante Tec.
Secretaria
Jefe Of. Planif. La Paz
Secretaria
Técnico III
Técnico II
Técnico I
Jefe Of. Planif. Oruro
Secretaria
Chofer
Técnico III
Técnico II
Técnico I
Jefe Of. Planf. Cochabamba
Secretaria
Chofer
Técnico III
Técnico II
Técnico I
Jefe Of. Planif. Beni
Secretaria
Chofer
Técnico III
Técnico II
Técnico I
Jefe Of. Planif. Potosi
Secretaria
Chofer
Técnico III
Técnico II
Técnico I
DIRECTOR COORD. Y CONCERT.
Auxiliar
Chofer
Secretaria
Jefe Departamento Coord. Operat.
Técnico III
Técnico II
Jefe Of. Planif. Sta. Cruz
Secretaria
Chofer
Técnico III
Técnico II
Técnico I
Jefe Of. Planif. Chuquisaca
Secretaria
Chofer
Técnico III
Técnico II
Técnico I
Jefe Of. Planif. Tarija
Secretaria
Chofer
Técnico III
Técnico II
Técnico I
Jefe Of. Planif. Pando
Secretaria
Técnico III
Técnico II
Técnico I
DIRECTOR COOPERAC. E INTEG.
Auxiliar
Chofer
Secretaria
Jefe Departamento Convenios
Técnico III
Técnico II
Jefe Departamento Integración
Técnico III
Técnico II

DPS/MMG-EBQ

SECTION III

AGRICULTURAL PRIVATE SECTOR

It is in the private sector that agricultural production gains are to be made, jobs will be generated, export potential is realized, and the future economic well-being of Bolivian agriculture resides. Both the public and private sectors have a role to play. Indeed, without the public sector to supply the infrastructure, provide policy, regulate credit, set standard and provide certain marketing services, the private sector would find it very difficult to operate.

Investment in the agricultural sector, especially as it pertains to new agro-industrial projects, is currently constrained by a lack of information on factors influencing investment opportunities. Investors have a need for technical assistance, the host lacks technical information, and there is a shortage of long-term credit. There is also a lack of understanding on the part of lenders regarding agro-industrial projects.

Two institutions that are crucial in the decentralized agricultural sector approach are the Regional Agricultural Chambers and the PAPOs.

A. Regional Agricultural Chambers (RACs)

These organizations are key links between a decentralized MACA and local producers and agribusinessmen. These RACs are comprised of a number of Private Agricultural Producer Organizations (PAPOs). A good example of the strengths and weaknesses of these organizations is the Cámara Agropecuaria del Oriente (CAO) in Santa Cruz. This RAC is well established and is perceived as being valuable to the ten producer organizations which comprise its membership. Its members produce cotton, soybeans, wheat, corn, sorghum, rice, fruit, sugar cane, milk, cattle, pigs, and poultry. Services to members include representation of members' interests before local and national government institutions; negotiating lines of credit for member groups; preparing feasibility studies; providing technical assistance; serving as a forum for discussions of common problems and desirable policies; assisting in the marketing and exporting of members' output; and assisting in the importing of inputs and machinery. CAO is funded by member contributions and by some profits from its sale of inputs.

Although CAO is one of the strongest RACs in the country it still has needs. Such things as technical assistance for carrying out more sophisticated, in-depth product, marketing, and feasibility studies.

If CAO and its members are to export more of their production, they will need additional assistance in international market intelligence and information, especially in the areas of analyzing price and demand information and demand projections. CAO needs to hire more professional staff in order to widen its scope of work by product and activity.

B. Private Agricultural Producer Organizations (PAPOs)

MACA and BAB, despite their reorganizational efforts, are still a long way from providing agricultural support services to individual producers. There are three types of farmer organizations in Bolivia attempting to fill this gap: campesino unions, cooperatives, and producer associations. The most effective of these are the producer associations. USAID now has a project to assist these PAPOs and to strengthen and expand their capacity to provide services to their members. This will be accomplished by providing technical assistance, training, and direct small grants and/or access to financial support in the form of local currency credit using PL 480 financial credits. Short-term training will be available for leaders, members, and administrative/technical personnel from the PAPOs. Training will include technical demonstrations on the farms of PAPO members, workshops, and seminars.

The project has an agro-industrial component which will provide technical assistance to processing and other enterprises which belong to the PAPOs themselves. Support grants of up to $25,000 per organization will be available for fixed cost, nonproductive expenditures to improve PAPO operations.

In addition to the PAPOs project, there are a number of other projects managed out of the USAID Private Sector Office that have a direct bearing on the agricultural sector. Besides the various endeavours funded by PL 480 (described elsewhere in this report), there are two projects that could affect the outcome of agro-industrial investments. These are the Market Town Capital Formation project which is a five-year program of which $15.0 million in loan monies will go to provide credits to help develop and finance agro-industrial and agribusiness/agriservices investments and $3.0 million grant for investment promotion and long-term technical assistance.

The other project is the International Executive Service Corps. This group of retired businessmen has fielded some excellent individuals with technical and administrative experience in food technology and agro-industrial firms. Funded by PL 480, they fill a gap in Bolivian know-how in this sector. The IESC should be exploited to the maximum by the private sector as a low cost TA input.

Another project available to the agricultural private sector which is not being currently utilized by Bolivia is project SUSTAIN. This project, run out of S&T/Nutrition, AID/W, is similar to IESC; that is, it consists of U.S.-based food technology companies that make their technical and managerial employees available for short-term periods, at cost, to any food processing project in-country. They can be contacted directly by writing to:

Irwin Hornstein
Project Sustain
Suite 915
915 15th Street, N.W.
Washington, D.C. 20005

These above mentioned programs and projects combine to form an array of useful tools in the linking of the public and private agricultural sectors. The decentralized organizations of MACA, especially, need to be aware of and utilize these projects and personnel in their quest for increased agricultural production. The USAID Mission also must utilize all these resources within the agricultural sectors and insist that MACA/MICRO do the same.

As a key component of the linking mechanism, an advisory board would be created. Represented on the board would be the various regional Chambers of Agriculture from around the country. The principal role of the board would be to advise the Minister of Agriculture on both domestic and import/export policy.

C. National Wheat Council

A National Wheat Council should be set up outside of and separate from MACA. This council would be comprised of representatives from ANAPO, ADIM, the Seed Council, and the Wheat Producers Associations. Their role would be to promote the production and exportation of wheat as well as to lobby with MACA and the Government of Bolivia on wheat policy. They would also send a representative to the PL 480 board.

The National Wheat Council should not be located within any institution; rather, it should be self-sufficient. Its funding should come from an annual dues tax based on a percentage of wheat producers', shippers', and millers' volume sales. Some initial start-up core funding might be provided by PL-480 funds from the $2.2 million of the wheat production and marketing project.

SECTION IV

ISSUES

A. Decentralization

While MACA is going through the motions of a complete restructuring and is paying lipservice to the decentralization issue, it becomes increasingly clear that MACA is either not willing, not capable, or does not understand the term. MACA, despite appeals to the contrary, has not been able to come up with an overall plan for the sector, nor a set of priorities, nor a budget breakdown. Part of the problem has been one of the MACA/MICRO not being able to take a problem/solution approach to the restructuring exercise. The restructuring approach has been, up to now, a top-down exercise. Emphasis has been on the headquarters building only; very little, if any, thought has been given to the region's production and marketing problems and what the best mechanism is to put into place to resolve these problems. MACA was, and is still, a centrally focused entity.

This issue will not be resolved with half measures. In addition to the steps recommended in this report, the following are emphasized:

- USAID should seriously consider placing a long-term TA planner and marketing specialist with the Subsecretariat of Planning. His job would be two-fold. One would be to organize this office; the second would be to assist in the reorganization of the MACA Marketing Office. A second long-term marketing expert would be located within the Marketing Office of the MACA Subsecretariat of Agricultural Development. He would assist the Director of Marketing to develop and organize this office.

- USAID should place a third long-term planner and marketing TA specialist in the new MICRO institution. His duties would be similar, i.e., to make sure that the MICRO planners emphasize the decentralization of the new MACA out to the regions and the private sector.

B. Agro-Industry

Agriculture and industry must be seen as being integrated if an appropriate framework for agroindustrial project analysis is to be developed. This is not being carried out in Bolivia at present. The Bolivian agro-industrial sector is small and generally directed towards the processing of primary commodities. Little further processing is taking place due to the availability of cheap imports. However, this is slowly changing and the

potential for agro-industry is there. Whether or not this indeed comes about depends on several factors. Among them are the urban demand for more processed foods; government price and market policies which, if they are allowed to remain free and openly competitive, should favor rural producers; agro-industries' adequate long-term credit; and the relative success of the Private Agricultural Producer Organizations (PAPOs) in providing the necessary agricultural support services to their members.

One mistake that is now being made in Bolivia is to evaluate agro-industrial projects as either agricultural or manufacturing projects. This division reflects the fragmented structure of the analyzing institutions themselves:

- MACA vs. the Ministry of Industry, Commerce, and Tourism
- BAB vs. Commercial Banks
- Consultants - Agricultural Economists vs. Industrial Engineer
- USAID - Agricultural Office vs. Private Sector Office

An agro-industrial project depends on three operating activities: a) procurement, b) processing, c) marketing. Two out of the three, i.e., a) and b), are agriculturally related. It thus becomes essential to the success of the project that agricultural institutions work closely with the Industrial Bank and related Ministries on these types of projects. One step that will go a long way to assist this process is the new MICRO Board of Directors. If this recommendation is carried out, having a combined board comprised of the Ministers of Agriculture, Commerce & Industry, and Finance, should allow this issue to be constantly addressed.

SECTION V

PROGRAM INITIATIVES

A. Training: an Introduction

There is no formal mention anywhere within the restructuring work of the MACA concerning the formation of an integrated training program for the MACA and sector personnel. Nonetheless, MACA directors, the institute's directors, and the advisory groups attached to the reconstruction work have been unanimous in their opinion that if the MACA reconstruction effort is to succeed, then it is absolutely necessary to create an ambitious training program. This training program would be sustained, in-depth, broadbased, and fully integrated with the MACA reconstruction needs in both the planning and implementation phases.

The need is definitely well perceived. Thus, the purposes of this section of our report are: to demonstrate that the need exists; to explain how an ambitious training program should be focussed if it is to meet the needs of MACA; to examine where training support programs should be sought; and to suggest what different types of training programs should be envisioned to enable the agricultural sector in Bolivia to meet its reconstruction goals.

B. Existence of Manpower Training Needs in MACA and Agricultural Sector

It is the concensus that MACA and the agricultural sector suffer from an acute lack of sufficiently well qualified professionals and technical experts to fill the present needs of the Bolivian agricultural sector. An immediate example of this fact is present in the MICRO. When the MICRO was created, one of the first problems the group encountered was the inability to design the MACA reconstruction plans because of its inability to find sufficient numbers of qualified public administration experts. To ensure that the MICRO achieve the level of work required, they were obliged to hire outside and international consultants.

A rapid look at some of the decentralized institutes will further demonstrate the lack of qualified human resources in the sector:

- Consejo Nacional de Semillas (Seed Council): The council has but six highly qualified technical experts, three of whom are functioning as regional directors and who are being proposed for masters degree studies outside Bolivia.

- IBTA (Institute for Agricultural Research and Extension): There are 122 extension generalists and 150 research

experts who serve 15 experimental stations and eight nurseries nationwide Each extension agent serves more than 4,500 farmers. There are no extension specialists in specific commodities and there are no Ph.D.s in IBTA.

- o CDF (Forestry): The are no forest rangers and no qualified aerial survey experts available to finish an aerial survey update, the last one having been made in 1978.

- o CDP (Fisheries): There are eight technical specialists nation-wide, of whom one is a biologist and 19 are professionals.

- o MACA-Global: Fewer than 35 percent of MACA employees are executives, directors, and technical experts. The rest are administrative support personnel. (Refer to attached charts).

The above information illustrates one of the most serious problems facing the MACA reconstruction effort. While we see a definite need for more, new, and better human resources talent, we also see a MACA which is overstaffed with administrative support elements. (As a glaring example, there is not one qualified marketing specialist in the ministry). Thus, on the one hand, MACA is faced with a serious need to release useless staff while, on the other hand, MACA must contemplate hiring new personnel, not only for its daily functional needs as illustrated above, but especially to be able to meet the demands which will be imposed on the organization by the reconstruction.

Though the present MICRO research does not show how many new personnel would have to be brought in under the reconstructed MACA, reference to the reorganization charts would lead one to believe that the numbers could be important. In the meanwhile, MACA has verbally mentioned releasing, retiring early, or indemnizing some 500 to 2,000+ MACA employees. Because MACA has not yet carried out a detailed analysis of its present manpower and its future needs, it is not possible to speculate on what the final numbers would be.

Nonetheless, the crucial facts are evident--the MACA reorganization will involve great shifts in the configuration of subsecretariats, reporting offices, advisory units, etc. Combining this to the probable numbers of released personnel, one can only conclude that, indeed, the MACA is confronting a major human resources problem which will require enormous talent and foresight to resolve intelligently. One of the most practical programs to support the magnitude of this reconstruction is an integrated training effort which can train existing personnel for relocation within the MACA, hire new talent into MACA, or even to out-place personnel from MACA.

A further understanding of the need to support the MACA and agricultural sector with an ambitious training scheme, even without considering the reconstruction of MACA, can be had by understanding what kind of employee typifies the MACA employee, a profile that may be applied to the typical public sector employee. Traits of that employee include:

- Poor pay in the sector has resulted in the good employees leaving the sector for better-paying jobs elsewhere.

- The talented sector employees who do within the sector generally flow into the decentralized agricultural organizations, which pay better. Though they are contributing to the sector, they tend to owe their loyalties to the international organizations which support them and are not necessarily to be counted on as permanent sector employees.

- Extensionists are relatively few in the sector, are paid very little, and tend to work as extensionists only a relatively short time. Moving "upstairs" is preferable to staying in the field.

- The gross majority of the MACA employees are administrative-support types. Fewer than 35 percent of the MACA employees fall under the category of executives, directors, and technical specialists. (Refer to chart analysis of MACA personnel.) Extrapolating from USAID's profile on the private sector employees, it would be reasonable to assume that the public sector employees do not achieve the weak overall level of the private sector employees. This is especially true when one considers the low incentive which MACA has traditionally offered.

"Principal among the constraints which emanate from within the private sector is a family orientation to enterprise organization, a serious training deficiency in all areas of business management (75 percent of the owners/managers of businesses affiliated with the Bolivian Chamber of Industry have had no formal university training), and a dearth of knowledge on how to obtain improved technology as well as marketing, financial and product information to upgrade business performance." (Management Training Project; IDEA program, p.6.)

- The public sector in Bolivia has typically been a center of political favoritism. This especially applies to MACA where the sensitivities of rural issues have led to the MACA becoming primarily a body of politically oriented directors rather than experienced agricultural specialists who research, develop, and market agricultural and consumer items for internal consumption and export.

- While there are public administration courses in some of the academic institutions within Bolivia, there is no public administration career program in-country. Therefore, the public administration employees within the public sector are both small in number and relatively poorly prepared. Those who are academically and professionally qualified have no in-country way to substantially improve their professional level in order to keep up with the times and to meet the modern challenges within the sector. This is especially crucial today as the sector is being called upon by the government to create a self-sufficient and exporting agricultural sector. In addition, restructuring MACA in itself is a colossal task requiring astute minds on the cutting edge of economic, administrative and agricultural technology.

- Working conditions within MACA are poor. Both technical and administrative tools are in severe shortage, creating disinterest, disheartenment, and frustration among employees. Low morale has lowered quantity and quality of employee output.

- Poor inter/intra-office communications has created a cadre of employees who understand neither their immediate jobs nor how they relate to the big picture. These employees produce poorly.

- The public sector offers few opportunities for meaningful promotions or salary increases, even for the employees who produce well and who deserve to advance. This has created a morale problem and low motivation among sector employees, especially among MACA employees, who are paid even less than employees in other ministries.

Despite the enormity of the human resources problems which the planners of the MACA reconstruction must face, there is a great deal of optimism evident among many of the key personnel within MACA. These persons are motivated, are interested in seeing the reconstruction become a reality, and are ready to put their shoulder to the wheel to ensure that every opportunity is exploited. These same people recognize that the reconstruction of MACA presents a human resources challenge whose solution will be best achieved through an all-encompassing training effort which directly addresses the human resources issues just described.

C. Purpose and Goals of a MACA/Agricultural Sector Training Program

Of primary general importance is a training scheme which focusses on supporting the agricultural sector in achieving its reconstruction goals. That is, training must be focussed on

aiding in the reconstruction itself as well as on the goal of MACA to become a normative organization designed to efficiently provide services to the decentralized functional institutions.

There are several other more specific considerations for such a far-reaching integrated training plan:

- It must provide for transfer of technology.
- It must provide MACA with institutional development capability.
- It must aim toward allowing MACA to improve its administrative efficiency at both central and decentralized levels. For example, it must provide central and decentralized entities with strong project design, development, and management capability.
- It must provide for custom-designed courses for in-house instruction.
- It must incorporate courses at the level of a universal, mainstream MACA employee.
- It must identify with the specific needs of key personnel who will implement the reconstruction programs.
- It must be a sector-wide effort. For example, it must strive to train employees who must provide agricultural support services to farmers and producer associations.
- It should recognize the lack of public administration career courses in-country and aim to satisfy the needs of the mid/upper-level administrator who is presently inadequately trained so as to enable him to assume the larger, more complex responsibilities which will come about under the reconstruction.
- It must provide for eventual participant training programs.

D. Existing Training Institutions and their Potential Contributions

A first step in considering such an all-encompassing training program is to ascertain whether or not there are available in-country resources which could be called on to perform any or all of the training needs as described earlier. Below are some areas which have been investigated as to the suitability of their present and potential academic and institutional capabilities.

E. Participant Training Overseas

This type of program almost always implies degree-oriented training, often in the United States, for masters and doctorate studies. This is not an easy category for institutional evaluation at this point because, in order to recommend overseas degree training, there should be a sector needs assessment study done to accurately ascertain what the Bolivian agricultural sector requires. Nonetheless, it should not be overlooked as a possible training effort. Should it be satisfactorily determined that there is a need which would justify funding this more costly (both in money and time) type of program, then it is the advisors' opinion that the most effective participant program would be found within universities in Bolivia or in Latin America where degree studies would be more closely identifiable with the Bolivian agricultural sector realities. In this context, it is incumbent on us to consider the Universidad Católica in La Paz.

(Note: We have included some concrete recommendations for participant training in some areas, such as the National Seed Council and National Fisheries Institute, where the needs are clear and where such recommendations can be justified at this time.)

F. Bolivian Universities

The concensus is that there is only one Bolivian university where linkages would be feasible or desirable . The Universidad Católica qualifies, since it is really the only university which is sufficiently unaffected by political and ideological currents to have maintained a high degree of academic integrity. Some of the reasons for considering linkages to this university include:

1. La Universidad Católica (U.C.) is a recognized, prestigious university in Bolivia.

2. U.C. has linkages with the University of Arizona which are intact and which should be utilized to the advantage of the academic professional communities it serves.

3. U.C.'s combination of masters programs and its U.S. university linkages make U.C. the ideal institution for initiating participant training programs in the United States or in other Latin American universities.

4. U.C., together with University of Arizona, developed a masters program curriculum in three areas: agricultural economics, agribusiness administration, and business administration. (See next page.)

U.C. also has recent programs in rural development (Instituto de Desarrollo) and in technical-scientific agro-rural

MASTERS CURRICULUM - UNIVERSIDAD CATOLICA

Economia Agrícola	Administración de Agroempresas	Administración de Empresas
Microeconomia aplicada	- Microeconomia aplicada	- Microeconomía aplicada
- Estadística aplicada	- Estadística aplicada	- Estadística aplicada
- Fundamentos de agronomía y zootécnia	- Agronomía y zootécnia básica	- Contabilidad gerencial
- Metodología de la investigación	Metdología de la investigación	- Metodología de la investigación
- Macroeconomía	- Contabilidad gerencial	- Administración y desarrollo organizacional
- Estructura económica del sector agropecuario boliviano	Administración y desarrollo organizacional	- Administración de recursos humanos
- Informática aplicada	- Comunicación en negocios	- Gerencia financiera/Instituciones de crédito
- Comercialización de productos agropecua-	- Gerencia de operaciones/Producción	- Gerencia de mercadotecnia
- Sociología rural	Comercialización de productos agropecuarios	- Gerencia de Operaciones/Producción
- Economia de la producción	- Informática aplicada	- Legislación empresarial y laboral
- Comercio internacional de productos agropecuarios	- Gerencia financiera/Instituciones de crédito	Informática aplicada
- Desarrollo rural	- Política y estratégia de las empresas agroindustriales	- Política y estratégia empresarial
- Políticas gubernamentales del sector agropecuario	Mercados externos/Políticas y prácticas para la promoción de exportaciones	- Marco institucional del comercio exterior
- Crédito Agropecuario	- Marco institucional del comercio internacional de productos agropecuarios y agroindustriales	- Mercados externos/Políticas y prácticas para la promoción de exportaciones
- Preparación, evaluación y administración de proyectos agropecuarios.	- Procesamiento de insumos agroindustriales/Tecnología para la producción de alimentos	Relaciones industriales
T E S I S	T E S I S	T E S I S

information (CICTAR - Centro de Información Científico-Técnica Agropecuaria y Rural) which, in addition to its masters programs, would form an ideal triangle of interrelated and complementary programs for agricultural extension and research.

5. U.C. has UNESCO-donated audio-visual equipment and offers a degree course in communication sciences. This course material and equipment can be utilized to allow the MACA to develop educational programs for TV and video broadcast within informatic and educational parameters which could be custom-designed for MACA and its decentralized institutions by U.C. (Refer to specific recommended MACA training programs.)

6. U.C. has a linkage with PL 480 which provides for a potential further opening for support programs.

7. U.C. has university facilities which are generally superior to those of other Bolivian universities.

8. There are no other educational institutions in Bolivia which offer the same potential for offering masters degrees which so directly relate to public sector needs.

Despite these merits, there are hurdles to overcome in making U.C. a fully operational masters degree university equipped to respond to the agricultural sector's needs. Below we deal with only one of these problems, since the others are potentially overcome with the solution of the first.

Specifically, the U.C. is unable to create a full-time staff of professors with an attractive salary which would keep its masters-level professors financially stable enough to prevent them from looking elsewhere for other part-time work.

The problem seems deceptively simple. The U.C. could, for example, feasibly solicit funds for hiring 10 professors at $1,000 per month, on one-year contracts and over the duration of (for example) a four-year USAID support program. However, U.C. is reluctant to solicit such support because it does not clearly see that it would be self-sustaining after the life of the program. The thinking is: "Better not to start at all than start and have to see it all dissolve at the end of the program funding." U.C. is justifiably concerned about the national demand for masters-level studies. A low demand would adversely affect its chances for a self-sustained masters program.

Nonetheless, for U.C. to become a truly credible masters program university, it is essential for them to develop a full-time faculty. Several ideas on how to bring this about have been set forth between Lic. Oswaldo Vega (USAID/Bolivia - PL 480) and authorities in U.C. After discussing them in depth, the

advisors feel that there are mechanisms for establishing a permanent faculty at U.C. These mechanisms need full-time attention to be developed as they presently are being formulated by Lic. Vega during his spare time.

The advisors' recommendation is to make Lic. Vega a full-time professional for six months so as to bring the ideas to fruition. Subsequently, these ideas will become a formal proposal to USAID for its study and approval.

One possible choice is Dr. Luis Ampuero. Dr. Ampuero was instrumental in helping the university set up its masters degree program. A detailed scope of work for Dr. Ampuero could be developed by Lic. Vega. Six months is an adequate period of time for this job and adding Dr. Ampuero to the work already accomplished by Lic. Vega would strengthen the team.

G. Independent Institutes

While this report does not suggest ignoring Bolivian institutes outside of IDEA and IBEE, there are several reasons why the recommendations center around utilizing these two institutes for MACA training programs.

IDEA is an obvious choice because they are already USAID-affiliated and they have satisfactorily proven they are capable of accomplishing the task.

In the case of IBEE, the choice is also clear, for it has been instrumental in the reconstruction efforts of MACA and understands clearly where and of what the MACA training needs consist. In addition, IBEE is carrying out the restructuring of the Banco Central and has gained a great deal of valuable first-hand experience in a human resources reorganization task similar in kind and magnitude to that awaiting MACA.

IDEA-Instituto para el Desarrollo de Empresas y Administradores

In reviewing the first year's report on the success of IDEA, it is clear that we have a success story before us which should be utilized to maximum advantage and, if needed, even expanded with increased support funding . The important facts to emphasize are:

- IDEA is flexible.
- IDEA has an established administrative and academic infrastructure.
- IDEA has an established presence in the capital and a growing one in the regions.
- IDEA has a recruitable staff of some 150 instructors, all well qualified in their areas of expertise.
- IDEA has a proven capability for tailor-made courses.

- IDEA has access to USAID/USIS pedagogical libraries and materials (audio visual, video, etc.)
- IDEA already benefits from a USAID monitoring and coordinating program.
- IDEA benefits from its affiliation with Westinghouse Learning Systems expertise.
- IDEA can pay the salaries necessarv to attract teaching talent.
- IDEA has an operational "train the trainers" program.
- IDEA has advertising capability.
- IDEA has established their credibility as an academic institute.
- IDEA is especially strong in non-formal (non-credit) courses, these being the types of courses from which the bulk of the MACA employees would probably most benefit.

Minimum Training Role for MACA by IDEA

In addition to believing that IDEA should continue performing the excellent work it has been doing thus far, it is felt that IDEA is an ideal candidate for expanding its training business into the public sector training needs area. In talking to the director of IDEA, Ing. Hector Encinas, several ideas were discussed and definite possibilities for IDEA's taking on training programs within the MACA restructuring program were explored. Recommendations for minimal participation are mentioned below:

- MACA and the agricultural sector have technical experts and professionals whose background, skills, and experience in the sector could be utilized academically to support the training needs within MACA. However, as is most common in these cases, even though such persons are experts in their areas, they do not know how to teach. IDEA can train these experts to become effective instructors in their own fields, thus creating a teaching cadre from MACA's own available personnel resources. A first effective step towards technology transfer can thereby be developed in-house. An excellent beginning point would be the Seed Council. The Seed Council has a workable organization which other institutions should emulate. With their own well-trained group, the Seed Council would have strong transfer of technology capability.

- In the spirit of creating a type of outplacement service to MACA, IDEA would take numbers of MACA personnel laid off in the restructurization and target-train these unemployed individuals to enhance their ability to find new work. Such target training would increase the skilled labor pool and provide opportunities for keeping them off the unemployment lists.

- IDEA has the capability to assist MACA in the autodetermination of its training needs. It is a difficult task for an organization to accurately determine what its training priorities are and to establish criteria concerning which individuals should take the training programs. IDEA's experience and academic expertise places it in an ideal position to guarantee that MACA expertly and accurately determine what its short-term and long-term training programs should be and for whom.

- In the interests of the private sector involvement with the public sector, IDEA is in the perfect crossroads position to advise MACA on what kinds of private sector-oriented training with which MACA should be involved. By assessing MACA in private sector-oriented courses which could fill MACA training needs, IDEA would effectively be cooperating in bringing about a type of approachment between the public and private sectors. This would also have the spin off effect of enabling the public sector employee to provide improved services to the decentralized organizations. Of specific value would be the implementation of marketing courses focussed on the special needs and restrictions existing within the decentralized institutions at this time. Thus, MACA would address the decentralized institutes' complaints about the non-existence or weakness of the agricultural sector's marketing and commercialization capabilities.

- In basically the same context, IDEA would reserve a quota of spaces in its regularly scheduled private sector-oriented courses for authorized MACA employees. This would enable MACA to take immediate advantage of existing courses even before having to establish its own training programs.

Full Training Role for MACA by IDEA

If we take the broad view of MACA's known and probable overall training requirements and adopt a purely pragmatic approach on how to best analyze and fulfill them, then it is sensible to consider placing the bulk of the MACA training program under a single, consolidated effort. The rationale for this lies with a variety of reasons:

- A coherent overview concept for the curriculum is more feasibly obtained.

- Interface with the MACA is reduced to a few individuals, thereby permitting MACA a more effective and efficient line of communication with one rather than several training institutions

- Logical, progressive needs assessments of the MACA are an easily achieved, built-in aspect of course development and implementation.

- It is easier to provide quality control guarantees for the various courses.

- Follow-up of instructional impact (both academic assessment as well as on the job evaluation) is more meaningful when done by a consolidated training effort rather than several training entities, since there is consistency of evaluation norms.

- AID-funded projects related to MACA can easily draw on the immediately available resources of a consolidated training program.

Conversations with IDEA show that this organization could undertake the bulk of the MACA training needs evaluation, course designs, implementation of training programs, on-going needs assessments, and follow-ups. IDEA has all the basic administrative and academic infrastructure in place which would permit it to achieve the same impact within the public sector as it has had on the private sector. It is strongest in the non-formal courses, thus coinciding with the bulk of MACA's training needs.

In order to accomplish this, one has to weigh some very important considerations. Of primary importance to IDEA is that any such involvement with the public sector would have to provide contractual, organizational, and financial guarantees so as to ensure that IDEA not submit to any sort of pressures or restrictions from MACA which would prevent IDEA from maintaining the same quality academic standards and services to the public sector it is now providing to the private sector.

Of equal importance, IDEA would require financial support in order to branch out into public sector training. Even though there are instances where the public administration requires instruction in private business know-how, the fact remains that there is a legitimate rationale and there are needs which are peculiar to the public administration. These specialty areas need to be specifically addressed. Therefore, IDEA proposes to create a separate branch in its business dedicated to the MACA needs, but with the goal of developing capacity for providing regular and tailor-made instruction to the public sector in general.

Thus, IDEA would develop an entire "separate-but-integrated" school of public administration, with a focus on non-formal training. IDEA would have the enormous advantage of being able to constantly draw on its growing private sector course resources

should the need be apparent. This advantage is as important as it is unique in the organizations which presently offer professional training in Bolivia.

IBEE - Instituto Boliviano de Estudios Empresariales

In the initial mention of IBEE, it was indicated that the present advisory work IBEE is performing in the restructuring efforts of both MACA and the Banco Central places IBEE in the valuable forefront of understanding the in-depth issues and challenges involved in restructuring the public sector ministries. While there are solid arguments presented above for involving IDEA to the fullest in the MACA training programs, IBEE presents an attractive possibility for diversifying the MACA training, especially in formal degree or degree-oriented courses in which IBEE is especially strong.

IBEE as a Second Professional Training Institute for MACA

IBEE and IDEA focus mainly on the private sector professional training market. IBEE was formed by a group of professionals previously belonging to the staff of the Universidad Católica. With an interest to provide professional-level courses to private businesses, it immediately perceived that the private businesses preferred not to affiliate with a university. Therefore, these professionals broke off from the Universidad Católica and formed what is now IBEE.

In addition to being able to call on a staff of more than fifty highly-qualified professionals for the regular and tailor-made business courses which IBEE offers, IBEE has access to consulting professionals. At present it is providing consulting services to the Banco Central and to the MACA for their reconstructing efforts.

Other aspects of IBEE which makes it an ideal institution to undertake training programs for MACA and its decentralized public and private sector organizations are the following:

- IBEE is an independent, self-sustaining institute with an established administrative and academic infrastructure.

- IBEE has an advisory board of upper executive-level businessmen who continuously provide input to the Bolivian business world.

- IBEE is well ensconced in middle to upper-level management training. It understands this level in which MACA is especially weak.

- IBEE has an inside track on the public sector's restructuring needs.

- IBEE has established package courses which may be taken as they are or which may be adapted to specific in-house training needs.

- IBEE has tailor-made course capability.

- IBEE is a strong drawing card within the business community and can attract high-level national and international talent to its courses.

- IBEE can provide degree/credit-oriented courses which can satisfy a certain middle/upper-level need among MACA personnel.

Throughout the discussion of the strengths of IDEA and IBEE there deliberately has been no specific mention of defined courses for MACA. The omission has been deliberate. In order to know specifically what MACA requirements are, an in-depth, sector-wide training needs diagnostic study must be performed. As mentioned, this should be an in-house MACA needs assessment, since only the MACA/Agricultural Sector employees themselves have the grassroots insights necessary for determining training needs.

However, it is definitely not desirable for MACA to carry out the diagnostic survey on its own. It has neither the know-how nor the manpower and material resources to guarantee meaningful results. Therefore, it is suggested that the following steps be taken before committing MACA to a large training program:

- Establish IDEA or IBEE as the consultant to MACA to determining MACA/Agricultural Sector training needs.

- The diagnostic tools will be drawn up by a combination of consultants and MACA personnel chosen for their abilities to design and execute diagnostic studies at a national level.

- The survey will be carried out at all levels of MACA, horizontally and vertically. Directors, professionals, technical specialists, support staff, extensionists, and researchers will all be called upon for input.

- Central MACA, the departmental offices, the decentralized autonomous public institutes, as well as agricultural sector services beneficiaries and users, will all be included for analyzing sector training needs.

- The tabulated data should be ongoing insofar as it is feasible in order to obtain useable results as quickly as possible and to avoid the survey's acquiring the aspect of just another study.

- Once the information is drawn up, MACA and the consultant will present a comprehensive listing of primary and secondary training requirements. The breakdown will show the needs by academic (subject-matter) category as well as by regions.

- An initial descriptive analysis of possible course contents, duration, place, etc., should be drawn up (subject to change) to obtain an initial idea of training costs over a period of a semester or a year.

The sector analysis will be drawn up before any significant monies are spent for training and before commitments to training institutes are made. Then the results of the diagnosis for training needs within MACA can be made available to make final decisions as to which Bolivian institutions should do what areas of training. Once those determinations have been made, training programs will be implemented.

Because the very analysis of training needs is crucial in forming a training program which will support the MACA restructuring as well as provide for achieving medium/long-term MACA human resources goals, the way in which the analysis is carried out is of extreme importance. The following section recommends an effective methodology for MACA to determine general sector needs and sector training priorities.

H. A Practical Approach to Sectoral Training Needs Analysis

It is not the advisors' role to determine concrete methodologies for programs which are not yet approved or implemented by USAID in the MACA restructuring. Nontheless, since it has been recommended that a sector-wide, broad-based training program be established, it also seems appropriate to suggest the guidelines for conducting a sectorial analysis of training needs. The methodology has been utilized with tremendous effectiveness in situations nearly identical to those in Bolivia at this time.

Basic Guidelines

- A sector-wide analysis should not depend solely on questionnaires. When handed out, questionnaires are often answered incorrectly, partially, and by only some of the employees. Of those, only some are turned in for tabulation.

- Avoid analyzing training needs as a single and separate item. Establish a program to analyze general sectorial needs through which specific training needs can be identified. This approach not only avoids obtaining a

wish list of courses, but also provides a great deal of useful additional information on the sector which is necessary for establishing regional work plans which focus on problems and their solutions.

- o Establish a diagnostic study which is "of the people, by the people, and for the people".

Concept

The basic concept is to bring together sector personnel who share regional problems and realities into one-week intensive problem analysis workshops during which a small team of two to four persons trained in group dynamics leads the workshop participants through six days of sector analysis and understanding, and work plan development for concrete solution making. The team leaders guide the participants through steps of understanding goals and purposes, understanding issues, prioritizing problems, proposing feasible solutions, and separating controllable and non-controllable problems. The general approach is that by participating and talking together, people reach common understandings and solutions.

Participants

Participants in the regional workshops must represent all functional administrative areas of MACA: budget and finance, planning, personnel, supply, extension, etc. Each regional office and MACA central will send participants from these administrative areas. The hierarchy represented will be directors, sub-directors, mid-level administrators, professionals, and technical experts. The decentralized offices, institutes, and users in the region are also represented.

Problems Analysis

With an overall group of perhaps 40 persons in the workshop, the functional areas are separated and each functional area is tasked with analyzing its problems, with prioritizing them, and with determining whether they constitute controllable or non-controllable problems. Depending on the results of this analysis, each functional group draws a work plan (for a quarter or a semester) with the goal of solving prioritized controllable problems.

Training Needs

Specific problem identification and its corresponding identification of solutions leads to a clear concept of where training programs can be developed to help overcome deficiencies and problems. Those determinations can be made at the workshop level and/or analyzed at the central planning level for budgeting

and programming on a prioritized sector-wide basis. It is, however, convenient for each workshop group to identify where there could be useful training and, if feasible, develop some local initiatives for on-the-job training at the local regional office level with available local talent.

A small chart is attached on the next page to demonstrate the kind of analysis tool which can develop from such a problem analysis workshop. It is an example of the kind of precision of analysis and solution-finding which can be achieved when persons come together in a workshop with the goals of establishing a clear view of problems; to establishing their solutions; and of creating work plans and training programs to achieve those solutions.

Other Institutional Support for MACA

- ISAP (Instituto Superior de Administración Pública) was once supported by USAID and OAS funds. For a number of years it has not been officially used. The advisor has been unable to locate the proper ISAP personnel to determine specific recommendations for renewed ISAP utilization. Nonetheless, the public sector considers ISAP as "their" public administration school and the questions are bound to be raised concerning why ISAP is not supported in this report. It is recommended, therefore, that the ISAP be assessed for possible inclusion in institutions which could support MACA training programs.

- Because the advisors' time did not permit travel to the regional areas, regional universities and institutes were not evaluated. Nonetheless, the Universidad Mayor de San Simón, in Cochabamba, used to be well known for its strengths in agriculture and in extension work. In the interest of supporting regional development wherever possible, an effort should be made to assess this and/or other regional schools to determine where efforts to build regional academic capabilities would be justified.

J. Immediate Self-Improvement Programs

Up to now the discussion has revolved around outside MACA support programs which involve direct assistance of institutes and advisors. There are also several self-help training efforts which should be immediately implemented by USAID and MACA which do not require waiting for the broadbased proposals mentioned earlier to become reality. Programs should be initiated wherever areas of competence and budgets allow. The following ideas are presented because they are both effective and relatively cheap.

PROBLEMS/SOLUTIONS FOR REGIONAL AREA .....

PARTICIPANTS:

PROBLEM	DEGREE OF DIFFICULTY I	II	III	SOLUTIONS
1. Lack of coherence between job duties and assigned functions		X	X	- Obtain legal means to develop reclassification of functions. - Reassign personnel in accordance with reclassification
2. Antiquated, rigid, non-functional administrative procedures	X	X		- Personnel will develop simplified administrative manuals. - Regional offices will implement new procedures according to new manuals.
3. Insufficient number of qualified personnel at regional level			X	- Create legal means to hire necessary technically qualified personnel to work at regional level.
4. Inadequate salaries to hire qualified personnel			X	- Create legal instruments for raising minimum salary and establish salaries of exception for critical technical/professional talent.
5. Inadequately drained personnel at all levels.	X	X		- Regional offices program, finance, and carry out training programs in coordination with Central Planning Office. - MACA central carry out, with advisory assistance of IDEA, a sector-wide diagnostic of training needs, to then implement sector-wide training programs to meet those needs.
6. Inadequate financing or arrival of funding too late to be utilized.	X	X		- Regional offices establish work plans and financial needs to submit requirements on timely basis to MACA central for approval and timely distribution of funds. - MACA Central simplify rigid approval procedures. - MACA Central establish coordinating unit to ensure proper planning of projects and timely issuance of funds to coincide with regional work plan requirements.

1. Intersectorial Forums

Ministers, subministers, directors, and decision-making administrators would come together in informal intersectorial forums to have a free exchange of ideas aimed at reaching loose (or concrete, if possible) agreements on policy, procedures, etc. Such forums would be guided by experts and would have at least loosely fixed items of discussion. The costs would involve locale, a meal and snacks, transportation where applicable, and the services of the "M.C."

2. Talent Pool

The international organizations present in Bolivia have an extraordinary number of experts in-country at any one time, on both long and short-term assignments. This talent would be made available to the MACA in the form of seminars, mini-courses, talks, etc., which may be given by these international experts. The direct cost to MACA would be in providing a locale, snacks, transportation (where applicable), and advertising to employees to attend such meetings. The cost to USAID would be in the setting up of a data bank of its international experts, providing the time for the experts' time, and coordinating with MACA for the utilization of its experts' available time. This pool would not have to be restricted to USAID, of course, since private corporations and other international organizations could also be encouraged to "donate" the time and talent of their experts. Such talks, mini-courses, etc., could also be extended to national radio and television, where applicable. (See later comments on radio and TV training support.)

3. Possible Low-Cost/High-Impact Training Areas

The in-depth sector training needs assessment will bring out several ideas for agricultural sector training programs, pehaps more ideas than can be immediately handled. It is possible the suggestions below will appear within the diagnostic study. If not, then their inclusion in the following section will encourage MACA and AID to consider their feasibility in the MACA restructuring context. They are concepts which require development and implementation of ideas which traditionally bring a high return.

4. Undergraduate Scholarships:

Create a scholarship fund program for students entering undergraduate programs which directly relate to determined sector needs. Once the beneficiary graduated, he/she would be obliged to provide a year's service within the agricultural sector, at a basic wage and in a need area which would be determined by the appropriate MACA/agricultural sector authorities. The MACA would agree to train the graduate on the job while simultaneously

benefitting from the person as an employee. Once the year's obligatory service is over, there would be no further compromise, though MACA would strive to offer either 1) a better position to the newly-experienced employee in order to incorporate him/her into the sector as new talent or 2) a graduate degree scholarship.

5. Graduate Scholarships:

The graduate scholarships could be a further incentive for the co-op student who finished his/her work in the agricultural sector under the above program, or it could be a program initiated with a college undergraduate who is seeking a graduate degree.

Establish a graduate degree scholarship program for students whose study programs have a direct value for the sector. In return for the scholarship, students would do their research theses in areas where the university has obtained research and extension contracts or at least in areas which would have a direct value for extension and agricultural research projects which the agricultural sector is carrying out at the time. Upon receiving their masters degree, graduates would be obliged to provide two years' service to the sector at a reasonable and better-than-basic wage. However, at this level it should be clearly determined that the sector would like to retain this graduate-degree talent and be prepared to offer ongoing incentive programs for the graduate who completed his/her year of obligatory service.

For example, the graduate who is already working in the year's obligatory service would be entitled to a "stage" of teo to four weeks intensive target training at the six and twelve month points of obligatory service. The MACA would offer a guarantee of continued employment at the end of the year and with a salary which would keep the employee within the sector.

Persons who were incorporated into the sector through one of both of the preceeding scholarship programs would continue to be primary candidates for professional incentive programs which this report does not pretend to spell out, but which would logically be related to enabling the employee to grow intellectually and professionally and to increasingly contribute to the sector.

(NOTE: The Universidad Boliviana has a large number of students in agricultural-related courses. This should become a shopping ground for scholarship candidates. Since the MACA has already signed an agreement with CEUB, the above-recommended programs could perhaps be initiated there.)

6. Other Training Tools:

Radio and television offer magnificent opportunities for providing information and education across the nation. MACA should make a serious attempt to use the excellent educational radio network already existing in Bolivia and which has the reputation of being one of the best informational/educational radio networks in South America. Serious approaches to ERBOL should be made to see what programs MACA could establish which would benefit the agricultural sector.

In television, KHANA has the reputation of having overcome many of the restraints common in the educational/informational programs that utilize video for over-distance instruction. In addition, regular national TV broadcast channels should be approached in an effort to obtain support in broadcasting agricultural sector-interest programs. (As mentioned earlier, the Universidad Católica is also equipped to custom-produced video programs. They would constitute an important support element in producing MACA/sector programs for national broadcast or distribution.)

A radio conference network should receive a feasibility study. There is a small-scale functional system operating in Peru (developed with USAID and the University of Florida in conjunction with the technical resources of ENTEL-Perú and Motorola). The advantages are several, not the least of which is the low cost of approximately $12,000 per radio conference "room". The system is commercial-user oriented and is adaptable to one-way video installation at little additional cost.

K. "Begin Now, Do-It-Yourself" In-House Training Programs for MACA

1. Systems and Procedures Analysis

Regardless of the final form of the MACA restructuring, it is obvious that an administrative system as old and as rigid as that of MACA is one which no longer serves the purposes of an efficient and changing administration. Archaic systems and procedures are bound to be hindering more than helping in MACA's daily administrative routines. In order to begin to overcome this problem, and in the spirit of paving the way for MACA to be restructured not only in organizational allignments but also in the way it conducts its administrative business, it is recommended that IBEE or IDEA present a proposal for analyzing and improving MACA's administrative systems and procedures, and that the work to design and implement improved procedures begin immediately. Since the work is in-house, with existing MACA personnel, the basic cost is in the contracting of the IDEA consulting services and in the training of the MACA personnel in the new systems and procedures. The reason for beginning

immediately lies in the lengthy nature of the work. It is preferable to be already improving the administrative procedures of the MACA along practical administrative concepts of universal application than to attempt implementing a new structure with rigid, archaic systems and procedures.

2. "Mechanization" in the Work Place

One of the obvious ways for improving efficiency is in the selective implementation of word processing and computer usage. In areas where it would be logical to contemplate using computers to improve administrative efficiency (planning offices; finance and salary offices; research and extension programs; personnel records; etc), MACA should begin immediately to create a cadre of qualified staff. It does not really matter if all the persons who take the training are the same persons eventually selected to remain in the restructured MACA, since any person who left MACA after his/her training would have gained a new skill, thereby making it easier to relocate into new employment. The advantage of immediately gaining personnel prepared in computer useage is that this would ensure that computer equipment would not sit about unused because of lack of trained users.

Basic costs for such a training program can be kept to an absolute minimum by utilizing in-house word processors and computers and by utilizing computer-qualified MACA personnel who can be trained to teach their skills. Thus, the cost is reduced to the cost of training the trainers who themselves would benefit by earning extra for their teaching services. Another cost saver, of course, is available if the computer company gives in-house training.

(NOTE: the study on MACA computer needs, performed by Chemonics in 1980, should be studied and up-dated. The restructuring of MACA will include a strong central planning office requiring computers and data collection capability. The basic information contained in the 1980 Chemonics study could prove to be a useful point for developing MACA's data processing capability.)

3. Train the Trainers:

As alluded to above, there are many employees who possess valuable professional and technical skills but who do not have teaching abilities which permit them to teach their specialities with effectiveness. It is recommended that MACA make a concerted effort to identify such persons within the sector and have IDEA develop "train the trainers" programs for those individuals. In this way MACA can establish a bank of trained professional and technical experts who can be utilized to teach their skills to fellow sector employees within the training programs which will later be determined by the sector analysis. Not only would these persons become effective in-house trainers

in their specialities, but they would also teach for less than it would cost to have outside instructors.

Of specific interest would be the previously-mentioned concerted effort to train key individuals within the Seed Council so that they could be their own most effective teachers to other sector groups who should benefit from implementing the concepts and techniques which have made the Seed Council a model institute.

The above sections are just a few of the possible ways MACA should be encouraged to initiate training and employee improvement programs while awaiting the results of the in-depth sector training analysis which has been previously recommended. These ideas have been proposed in hopes that MACA will initiate others of a similar nature which would also have low cost/high impact and which would serve the interests of a better MACA. They would be programs which are universally useful within any institution seeking basic human resources improvements.

L. Technical Assistance

There are a number of areas and institutions that will need, at least initially, an infusion of technical assistance. Starting with MACA and MICRO, it becomes apparent that three long-term planner/marketing individuals will have to work in these institutions in order to accomplish the difficult tasks that face these organizations.

Within certain of the decentralized institutions, primarily BAB, National Seed Council, IBTA and Fisheries, there will be a need for long and short-term technical assistance. The detailed duties of these individuals are covered under the respective sections of the report.

MACA	-	1 Economist/Planner - 2 years - Sub-Secretariat of Planning
	-	1 Market/Economist - 2 years - Office of Marketing
MICRO	-	1 Planner/Marketing Economist - 2 years
BAB	-	1 Financial Credit/Administrator - 2 years
NSC	-	3 Seed experts - Mississippi or Oregon State - 2 years
IBTA	-	1 Research Administration - 3 years 1 Extension Specialist in Potatoes - 3 years

Fisheries - 1 Fisheries Expert with Marketing Experience - Auburn University - 3 years.

Short-term technical assistance will be needed by MICRO, BAB, and IBTA in various specialities, not apparent at this time. These needs will become clearly defined by the long term TA and their counterparts in each institution.

M. Studies

It is not the intent of this report to recommend to USAID or the MACA the need for a number of broad studies. Such studies usually, unless pragmatically focussed, tend to quickly find a resting place in the files or shelves of offices.

Having made this statement, however, certain short surveys need to be carried out in order so that MACA/MICRO and certain decentralized institutions have a clear guide for their next development steps.

These study/surveys do not have to be elaborately drawn out. On the contrary, they should be carried out as quickly and completely as possible. None of them should take longer than three months. In many cases they could be carried out by local firms experienced in such matters, although in some technical cases they should be carried out by the same foreign organization that will supply the T.A. Funding can be covered by PL 480.

MACA	-	Human Resources Inventory - 3 months - IBEE
IBTA	-	Needs Assessment and Human Resources Inventory -3 months - C.I.P./Lima, Dr. Richard Sawyer
Fisheries	-	Needs Assessment - 1 month - Auburn University
Forestry (CDF)		Aerial Survey of Forestry Reserves - 2 months.

SECTION VI

INTERNATIONAL ORGANIZATIONS AND PROJECTS

Among the other organizations whose projects have a bearing on USAID's agricultural work are two main efforts: the Interamerican Development Bank and the World Bank.

IDB - The second tranche of the IDB agricultural credit program signed in March 1987 is for $135.0 million, $100.0 million of which is provided by IDB with the balance provided by the Corporación Andina de Fomento (CAF) and the Central Bank. This credit, which originates in the Central Bank and goes through the public and commercial banking system, BAB included, is to be used for long and short-term credit, including agro-industrial loans. It includes long-term credit for marketing infrastructure such as storage facilities, inputs, etc. This long-term credit can go as high as $1.5 million without IDB approval (but needs Central Bank approval) and the terms can be from 3 - 10 years. IDB has a TA component in which consultants will be brought to Bolivia to train bankers how to use the reglamentos de credito and how to analyze agro-industrial loans. This on-the-job training program is funded for $1.4 million.

World Bank - The bank is looking, in principal, at the possibility of making an agricultural sector loan. This project would have a double approach, in that it would treat the Altiplano as a separate agricultural sector and the eastern part of the country (Santa Cruz, the Beni, Chaco, etc.) as a completely different unit. This project is still in the feasibility stage but would be a large credit infusion to the sector, if approved.

MACA and International Organizations

Within the restructered MACA, an Office of International Organizations is contemplated. This office will be housed within the Subsecretariat of Planning. Its purpose will be to coordinate donations, grants, loans, technical assistance, and international training.

The need for such an office becomes apparent when one reviews the myriad projects that have been funded in the agricultural sector through MACA and the decentralized agencies, and which in many cases duplicate or overlap one another.

There are twenty-four international agencies that have programs in the Bolivian agricultural sector. They range from the various multilateral United Nations organizations such as FAO, UNDP and so forth, through the World Bank, the IDB to the

bilateral programs such as USAID, Danish Assistance, Japanese AID program, etc.

In addition to the above, there are sixteen countries that occupy special friendly country status with Bolivia. These include the two Chinas, the two Germanies, as well as others, including eastern block nations and western democracies. These countries provide bilateral missions consisting of technical assistance and some equipment, such as Great Britain provides to the Amazon River Basin Fisheries project.

The number of projects for 1987 was 131 with a total financing of $486.9 million as of March 1987.

It becomes apparent why a separate office needs to be created and properly staffed in order to put a semblance of order into the chaos and duplication within the agricultural development sector.

This topic was the subject of earlier discussion in the section on MACA reconstruction and the role of the MICRO.

SECTION VII

ILLUSTRATIVE BUDGET

	1st. Year	2nd. Year	3rd. Year
A. Training			
MACA	200,000	200,000	200,000
SEEDS	75,000	100,000	25,000
IBTA	100,000	150,000	100,000
Fisheries	60,000	60,000	15,000
BAB	200,000	200,000	200,000
Others	150,000	50,000	65,000
	$ 685,000	$ 760,000	$ 605,000
B. T.A.			
MACA	300,000	300,000	310,000
MICRO	150,000	150,000	160,000
BAB	100,000	100,000	90,000
IBTA	450,000	450,000	475,000
Fisheries	150,000	150,000	175,000
Seeds	150,000	150,000	125,000
Others	75,000	75,000	85,000
	$ 1,375,000	$ 1,375,000	$ 1,420,000
C. Equipment			
MACA	100,000	125,000	-
MICRO	35,000	25,000	-
Fisheries	641,000	-	-
Others	50,000	-	-
D. Administrative			
Project Mgr. - Liaison - Personal Services Contract	100,000	110,000	115,000
E. Grand Total			
Items A - D			
	$ 2,986,000	$ 2,375,000	$ 2,140,000

SECTION VIII

RECOMMENDATIONS

This section summarizes the recommendations that appear in greater detail throughout the report under the various category headings. The recommendations are ranked according to priority.

1. Creation of a state corporation, MICRO, which will implement the reorganization of MACA and the decentralized institutes and link them to the private sector. It will be staffed by highly qualified professionals. Life: three years with option for two additional years.

Cost:	$250,000/year
Additional T.A. - (Long and short-term)	$150,000/year

2. Training - upgrade technical and professional personnel within MACA, BAB, National Seed Council, IBTA, and Fisheries. Training will include U.S. long-term technical training to the level of Masters and Ph.D. as well as short-term courses, seminars, and workshops in Bolivia and third countries, especially Peru, Chile, Colombia, Argentina, and Brazil. Bolivian institutions such as IDEA, IBEE, and Catholic University, will be utilized.

   Time: 4 - 5 years.

   Cost: Approximately $700,000/year.

3. Agricultural Research - IBTA should be completely reorganized along an in-depth commodity research program. The program should be limited to six commodities: potatoes, rice, corn, livestock, soybeans, and wheat. TA should be provided to enable IBTA to become more pragmatic and export oriented. IBTA should be modeled along the lines of the seed project; i.e., linked closer to the private sector demands. More qualified staff should be recruited and pay scales adjusted accordingly. Equipment and centers need to be upgraded.

Cost:	T.A.	$450,000/year
	Equipment	$ 35,000/year

4. Fisheries - The Center for Fisheries would be provided with technical assistance, equipment, and training. The lake and river fishing industry is a source of jobs and

protein and should be supported. The Center for Fisheries is doing a lot with very little resources. It needs to upgrade its staff and equipment.

Cost:	T.A.	$150,000/year
	Equipment	$641,000 - one time only

5. Human Resources Inventory - MACA

Cost:	T.A.	$ 35,000/year

6. PL 480 Title III Reflows - These should be used for:

   - o T.A. for Regional MACA offices.
   - o Support for Regional Ag. Councils
   - o Specialized training programs for MACA personnel
   - o Reorganization efforts that contribute to public/private agricultural sector linkages.

7. Integration by USAID/Rural Development and Private Sector offices of MACA, BAB, National and Regional Seed Councils, IBTA, CIAT, Fisheries into the ongoing PL 480, PAPO, and Market Town Investment projects. A sustained effort will have to be made on the part of all concerned institutions with regard to agro-industrial and export projects.

8. Seed Industry - National and Regional Seed Councils. This is a successful project and should be utilized as a role model for other MACA institutions. Nevertheless, it should continue to receive TA and training support so as to expand its operations throughout the country. Specifically, it is recommended that the N.S.C. receive support to send three of its six professionals to training. This training to the Masters level in seed technology is needed because of increased demand for the N.S.C. seed expertise throughout the country. It is further recommended that TA from Mississippi or Oregon State be provided to temporarily replace this 50 percent staff reduction.

   Cost: $150,000.-

9. Liaison Position - The creation of an agro-industrial project manager liaison position. This position would have a liaison function between the public and private sector projects as well as between the USAID Rural and Private Sector offices. This individual would oversee a pragmatic integration of the various projects to be carried out. He/She would apprise the mission of any

potential problems in this sector. The candidate should have private agribusiness and developmental experience.

Cost: $100,000/year P.S.C. contract

10. Forestry - Assist the CDF in ascertaining its foresty resources. CDF needs to finish and publish its recent aerial survey. Forestry and the lumber industry is important to the Bolivian economy and as a source of exports and foreign exchange. It should be conserved and appropriately exploited.

Cost: $ 10,000.-

Source: PL 480