

**A MANAGEMENT INFORMATION SYSTEM
FOR THE LAC BUREAU'S
COUNTER-DRUG/ALTERNATIVE
DEVELOPMENT PROGRAM**

December 1990

Prepared for

**Norma Parker
Helene Kaufman
Suzanne Olds
United States Agency for International Development**

MANAGEMENT SYSTEMS INTERNATIONAL

600 Water Street S.W., NBU 7-7
Washington, D.C. 20024



telephone: (202) 484-7170
telex: 4990821MANSY fax: (202) 488-0754

**A MANAGEMENT INFORMATION SYSTEM
FOR THE LAC BUREAU'S
COUNTER-DRUG/ALTERNATIVE
DEVELOPMENT PROGRAM**

December 1990

Prepared for

Norma Parker

Helene Kaufman

Suzanne Olds

United States Agency for International Development

**A MANAGEMENT INFORMATION SYSTEM FOR THE LAC BUREAU'S
COUNTER-DRUG/ALTERNATIVE DEVELOPMENT PROGRAM**

Table of Contents

	<u>Page</u>
I. Introduction.....	1
A. Scope of Work.....	1
B. Context for the Management Information System.....	2
II. Identification and Prioritization of Indicators and Data Types	6
A. Strategy and Logic of the Counter-Drug/ Alternative Development Program.....	6
B. Frameworks and Indicators.....	9
III. Data Organization and Analysis.....	16
A. "Success" or Strategic Objective Data.....	16
B. Program Target Data.....	20
C. Data on Assumptions.....	27
D. Portfolio Mix and Strategy.....	27
IV. Data Collection and Some Sample Data.....	35
A. Data Collection.....	35
B. Some Sample Data.....	38
 Appendix A: Criteria for Designing Alternative Development Program Components	
 Appendix B: Recent <u>Washington Post</u> articles on the Counter-Drug/ Alternative Development Program	

I. INTRODUCTION

A. SCOPE OF WORK

In September of 1990, the LAC Bureau contracted with Management Systems International (MSI) to improve the measurement of program performance throughout the LAC Region. The contract gave special attention (approximately three months consultant work) to development of a region-wide, management information system for the LAC Bureau's Andean Counter-Drug/Alternative Development program. The work took place primarily in Washington DC, but also profited from a trip to Bolivia by the MSI consultants on a separate, but related, contract.

At the signing of the contract with MSI, steps toward initiating the management information system had already been taken within the LAC Bureau by a Narcotics Expeditor's Task Force. The Scope of Work requested that MSI:

1. Complete identification of data types required by the Bureau to evaluate the Andean Counter Drug Program;
2. Prioritize a final list of data types and sources for the MIS;
3. Collect data and enter it into a suitable computer program;
4. Write a Scope of Work for the hiring of a long-term contractor to implement the Management Information System; and
5. Prepare illustrative briefing materials on selected topics.

This report presents the totality of MSI's work on tasks #1, #2, and #5, and a portion of the work on task #3. The remainder of material on task #3, and all work on task #5 are presented in separate volumes titled "AID/LAC Anti-drug Briefing Book" and "AID/LAC Newspaper Clipping Summary."

The data collection and computer program work listed in Task #3 are less complete for two reasons. First, although collection of the data specified in this report is very feasible, it is not immediately available in Washington, and there was no field work specified in this contract. Second, individual Counter-Drug/Alternative Development projects exist, but an overall program strategy is still being formulated. Therefore, at this point, the urgent information needs to manage and justify the program do not consist primarily of formal data, but rather of strategy analysis. For more on the need for strategy analysis see Appendix A.

B. CONTEXT FOR THE COUNTER-DRUG/ALTERNATIVE DEVELOPMENT MANAGEMENT INFORMATION SYSTEM

1. The High Public Profile of the Counter-Drug/Alternative Development Program

The LAC Bureau's Counter-Drug/Alternative Development program is perhaps the highest profile activity in A.I.D.'s entire portfolio world-wide. The program's high profile stems from its unique connection to domestic U.S. drug use and crime. Due to the connection, the program is highly funded, partially through the highly publicized "Bennett Anti-Drug Money". Interest in the program's progress from Congress, the Executive Branch, and the press, both in the U.S. and in Latin American countries, is unrelenting. For example, during two weeks in October over 100 articles on the program and related issues appeared in the Bolivian press, and during the final week of this report's preparation, two articles on Alternative Development in Bolivia appeared in the Washington Post (See the "Clipping Summary" volume, and Appendix B).

2. Management Information vs. Public Relations

Due to the high public profile of the LAC Bureau's Counter-Drug/Alternative Development program, heavy and unusual pressures will be put on the management information system designed in this report. Temptation will be strong to paint an overly positive picture of the program's progress and impact (the "Viet Nam War Syndrome"). There will also be temptation to report positive results before they are available. In other words, there will be pressure to use the management information system as a public relations system, and not distinguish between the two functions.

3. The Counter-Drug/Alternative Development Program and LAC Bureau Objectives

Management Information Systems and indicators track progress at fulfilling strategy and achieving objectives. Therefore, although MSI was formally hired to work on indicators, it was inevitable that we work as well on clarification of Counter-Drug/Alternative Development strategy and objectives (See Appendix A).

Recently, the LAC Bureau posited a set of objectives for imposing region-wide coherence on programs and projects. Objectives are posited in the following three broad areas:

- a. Broadly-based, sustainable economic development;
- b. Stable, democratic societies; and

- c. International cooperation.

All LAC Bureau, and country Mission programs must fit under one or the other of the above broad objectives, and the Counter-Drug/Alternative Development program is invited to fit under the third of the objectives as follows:

"Contribute to the formulation and implementation of United States Government strategies for dealing with issues of particular concern, such as the production, trafficking and consumption of drugs, terrorism, and environmental degradation."

Thorough analysis of Bolivia's Counter-Drug/Alternative Development program (See Appendix A), and to a lesser extent programs in Peru and Colombia, leads to the following broad conclusions:

- a. Alternative Development may fit under the "sustainable, broad-based economic development", and "stable democratic institutions" objectives as well it as does under the "international agreements" objective.
- b. Putting Alternative Development projects and activities under the "international cooperation" objective has serious negative side-effects and risks, and may not be the wisest among possible choices.

Counter-Drug/Alternative Development and Sustainable,
Broad-Based Economic Growth Objective

Criminal and health aspects of drug trafficking and consumption aside, a case might be made for a Counter-Drug/Alternative Development program on economic grounds. Latin American countries have a history of over-dependence on single export products, and resultant boom-bust cycles. The coca-cocaine economy can be thought of as one more in a chain -- beginning with silver and gold during the age of the Spanish conquistadors -- of Latin American over-dependence on single export products.

The case might be made that alternatives to coca/cocaine introduce diversity into Bolivian, Colombian, and Peruvian economies. The diversity helps make the economies "sustainable" by cushioning them from the negative effects of one-product price and market changes. Also, since many of the people who work in the coca industry are poor, providing alternatives to coca/cocaine provides "broad-based" economic development and opportunity.

Alternative Development and Stable Democratic Institutions

Participation of Bolivia, Peru and Colombia in the "drug war" has had grave negative effects on the stability of democratic institutions in those countries. Since coca/cocaine processing and trafficking are illegal, coca/cocaine production results in confrontations with, and corruption of, police and government officials. This has reduced trust in public officials and destabilized governments. Destabilization is particularly worrisome in at least two of the three coca-cocaine producing countries whose democracies are fragile. It is possible that continued heavy participation by Bolivians and Peruvians in the coca/cocaine industry, and attempts by democratic governments to curtail that participation, will jeopardize evolution toward democracy in those two countries.

Reasons for Not Using the "International Collaboration " Category

Clearly, the third LAC Objective category is not necessary for inclusion of the Counter-Drug/Alternative Development program within the overall framework of LAC Bureau objectives. Reasons for not using the "international collaboration" category are:

- a. Many people within and outside A.I.D. perceive Counter-Drug/Alternative Development as more directly involved with coca eradication and law enforcement than is the case. Inclusion of Alternative Development under the "International Cooperation" category reinforces this inaccurate, and counter-productive perception.
- b. Many A.I.D. professionals whose careers and hearts are in development do not feel comfortable with, and do not get enthusiastic about, merely complying with international agreements.
- c. The Counter-Drug initiative may be this period's fad, and we want the development programs designed under the Alternative Development initiative to outlive the drug problem.

It is MSI's judgement that USAID/Bolivia's Alternative Development portfolio fits better under the "sustained, broad-based economic growth" objective than it does under the "stable democratic institutions" objective, although the program contributes to both. In Colombia there is no large portfolio of development projects, and in Peru the portfolio is smaller than Bolivia's. Therefore, in Colombia and Peru, the balance may tip in favor of putting the Counter-Drug/Alternative Development under the "stable democratic institutions" objective.

4. What Would Victory Look Like?

The heart of any management information system is a "success criterion": a set of simple, agreed-upon, quantifiable measures of what victory looks like. In Chapter II it is explained that

Victory consists of "replacement by non-coca-based economic activity of coca-based economic activity;" and

Among all the "economic activity" variables, the two that matter most are employment and export earnings.

Mr. Clark Joel, the USAID/Bolivia Economist, has made rough estimates, based on conservative assumptions, of employment and export earnings generated by the Bolivian coca/cocaine industry at its height. Mr. Joel's analysis tells us that "total victory" would consist of:

- a) Approximately 160,000 new non-coca jobs, and elimination of most or all coca/cocaine jobs; and
- b) US\$ 100-200 Million dollars in export earnings, and elimination of most or all coca/cocaine export earnings.

Obviously, USAID/Bolivia can not achieve the above alone, and needs the help of the Bolivian Government, law enforcement efforts, and other donors.

II. IDENTIFICATION AND PRIORITIZATION OF INDICATORS AND DATA TYPES

A. STRATEGY AND LOGIC OF THE COUNTER-DRUG/ALTERNATIVE DEVELOPMENT PROGRAM

Indicators track a program's progress at fulfilling its strategy and achieving its objectives. Therefore, the program's strategy and objectives must be established before indicators can be developed. The LAC Bureau's Counter-Drug/Alternative Development program's strategy and objectives are still being formulated in the form of Mission Action Plans and Project Papers. There is a danger, then, that MSI's indicator development effort might "put the cart before the horse". However, development of progress indicators is one way to force consideration of strategy and objectives. (More MSI treatment of Alternative Development logic and strategy appears in Appendix A of this report.)

Table 1 presents a simple "Objective Tree" for the Counter Drug/Alternative Development Program. The tree is based primarily on the USAID/Bolivia program, but represents the objectives of Colombia and Peru too. Bolivia is likely to have the most complete set of objectives, with Peru and Colombia having sub-sets of the Bolivia objectives.

Entries in Table 1 (the objective tree) represent program objectives; the arrows connecting the objectives represent the cause-effect hypotheses on which the program is based. Economic development objectives, over which A.I.D. has important control or influence, are in capital letters. Objectives related to law enforcement and coca eradication efforts -- over which A.I.D. has only very indirect control or influence, but on which Alternative Development success depends -- are in small letters. (A.I.D.'s Logical Framework system refers to these latter objectives of complementary efforts as "Assumptions".)

The following paragraphs discuss: 1) levels of objectives in the "objective tree", and 2) program logic.

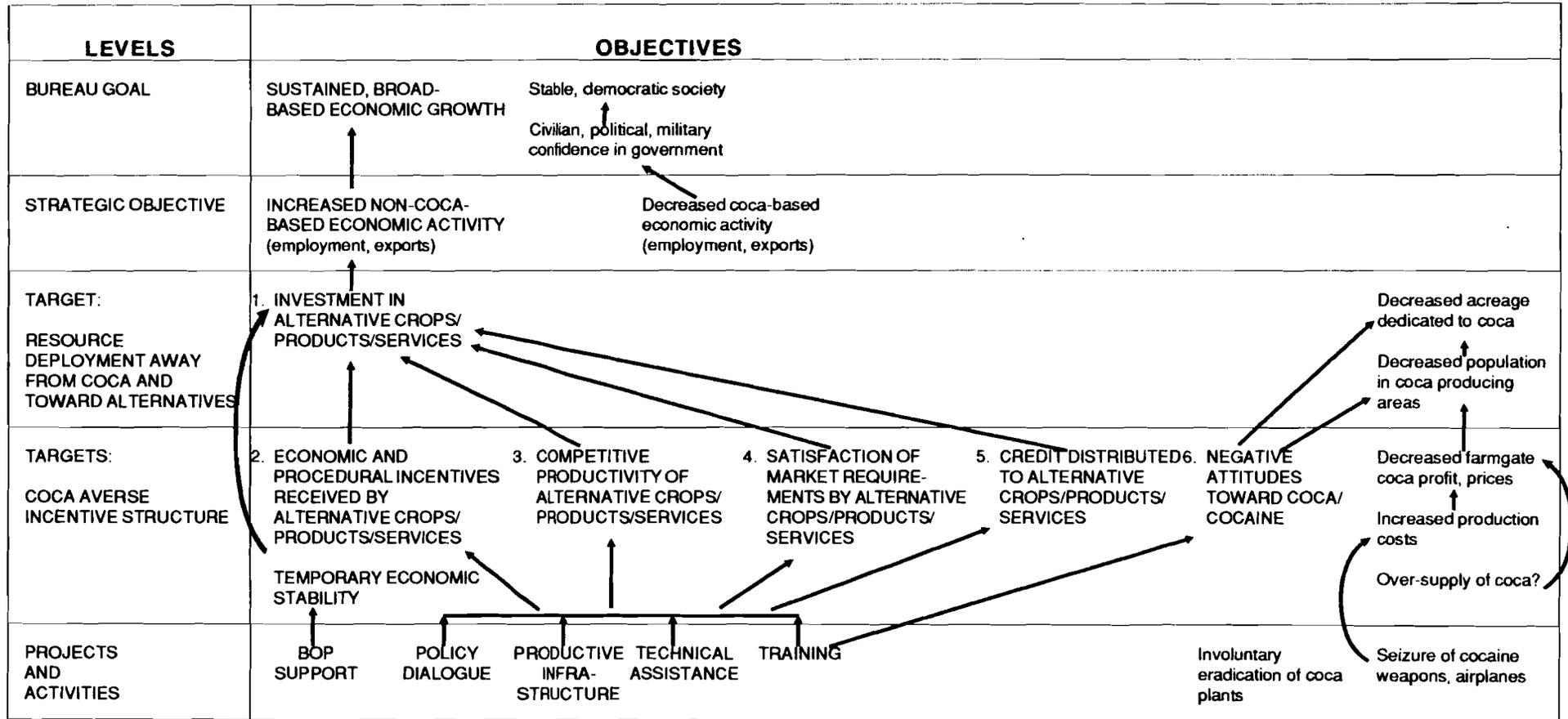
1. Levels of Objectives

Levels of the Program Logical Framework are as follows:

- LAC Bureau Goals;
- Strategic Objectives; and
- Targets (or Program Outputs).

Table 1

Alternative Development/Counter Drug Program Objective Tree



The levels are related in "if-then" fashion, with accomplishment of the lower levels necessary for, and leading to, accomplishment at the higher levels.

As discussed in the introduction to this report, the LAC Bureau Goal to which the Counter-Drug/Alternative Development program contributes most directly is: sustained, broad-based economic growth. This Goal also appears among the objectives of the Fund for Development of the Americas.

In Table 1, the Strategic Objective of the Counter-Drug/Alternative Development program reads: Replacement of coca-based economic activity by economic activity not based on coca. (Later in this chapter what is meant by "economic activity" is discussed at length.)

The Program Targets are derived from MSI analysis of Counter-Drug/Alternative Development efforts undertaken in the involved Andean countries. Targets represent the overlap between program and project management, and are of two basic types: 1) resource deployment, and 2) alteration of the economic incentive structure. Due to the nature of the portfolios in the different countries, Bolivia is likely to have projects or activities corresponding to all of the Targets and Peru and Colombia are likely to have projects or activities corresponding to only a subset of the Targets.

2. Counter-Drug/Alternative Development Program Logic

The program logic is presented by the left-hand column of Table 1. The logic consists of the several cause-effect hypotheses with effects on top, and causes at the bottom of the table. The utility of the hypothesis chain is that it allows us to connect where we want to go (Goals and Strategic Objectives) to things we can do (Program Targets). Reading from top to bottom in Table 1, the hypotheses underlying the Counter-Drug/Alternative Development program are as follows.

Hypothesis One: (Goal and Strategic Objectives)

To reach sustained, broad-based economic growth in Bolivia, it is necessary to

Replace coca-based economic activity by economic activity not based on coca/cocaine production.

Hypothesis Two: (Strategic Objectives and Target One)

To replace coca-based economic activity by economic activity not based on coca/cocaine it is necessary to

Redeploy resources (including people via migration) away from coca/cocaine and toward alternatives to coca/cocaine production.

Hypotheses Three (Target One and the remaining Targets)

To redeploy resources away from coca and toward alternatives to coca/cocaine, it is necessary to

Create an incentive structure which is coca-averse, and favors alternatives to coca/cocaine production.

Hypothesis Four (A mixture of Targets and Assumptions)

To create an incentive structure which is coca-averse, and favors alternatives to coca/cocaine, it is necessary that:

Short-term efforts create a stable economic and social environment over the near term;

Development efforts produce incentives for alternatives to coca/cocaine; and

Eradication and law enforcement efforts, or over-supply, produce incentives against coca/cocaine production.

B. FRAMEWORKS AND INDICATORS

1. A Program Logical Framework

Table 2 presents a generic Logical Framework for the Counter-Drug/Alternative Development Program. Note that the left hand (Narrative Summary) and right hand (Assumptions) columns list the objectives in Table 1, the Objective Tree. In the Narrative Summary column are objectives under A.I.D.'s control or influence. In the Assumptions column are factors important to program success which are outside A.I.D.'s control. The middle column in the Logical Framework lists indicators for measuring progress toward program objectives.

The intent of the Logical Framework is to identify the data types required by the LAC Bureau to monitor, evaluate and report on progress of the Counter-Drug/Alternative Development Program in the Andean region. Clearly, it is impossible to enumerate or predict all questions that will be asked of the program. However, the Logical Framework in Table 2 should cover a substantial

Table 2

Alternative Development/Counter-Drug Program Logical Framework

Narrative Summary	Indicators	Assumptions
BUREAU GOAL		
Sustained, broad-based economic growth	Growth = Increased GDP, Per Capita Income Sustained = Over Time Broad-based = Diversification, equity	-Stable, democratic society -Civilian, political, military confidence in government
STRATEGIC OBJECTIVE		
Replacement of coca-based economic activity by alternative economic activity not based on coca	Export Earnings Employment % Female	<u>Alts. vs. Coca</u> Country Level Program Level
		Favorable world markets for alternatives to cocaine NATIONAL COCA ECONOMY: Decreases in coca-based: employment, export earnings
TARGETS/RESOURCE DEPLOYMENT AWAY FROM COCA		
1. INVESTMENT in alternative crops/products/services	Ag Ag proc Man Serv	Country Level Program Level
		DECREASED INVESTMENT IN COCA: Decreased population in coca production areas Decreased acreage dedicated to coca Voluntary eradication of coca
TARGETS/COCA AVERSE INCENTIVE STRUCTURE		
2. Economic and procedural INCENTIVES received by alternative crops/products/services	Taxes Exchange Interest Procedures	Country Level Program Level
		FARM LEVEL COCA ECONOMY: Decreased farmgate coca profit, prices, demand
3. Competitive PRODUCTIVITY of alternative crops/products/services	Ag Ag proc Man Serv	Country Level Program Level
		Increased production costs for coca Over supply of coca
4. SATISFACTION OF MARKET REQUIREMENTS by alternative crops/products/services	Ag Ag proc Man Serv	Country Level Program Level
		Seizure of cocaine, weapons, airplanes Involuntary eradication of coca plants
5. CREDIT distributed to alternative crops/products/services	Ag Ag proc Man Serv	Country Level Program Level
		TEMPORARY ECONOMIC STABILITY International Credit Rating
6. NEGATIVE ATTITUDES toward the coca industry	Health Ethics Economics	Country Level Program Level
7. PRODUCTIVE INFRASTRUCTURE Water Roads Electricity	Capacity installed Short-term employment use New/crops/products/services	

majority of future questions. The rest of this report will elaborate on components and aspects of the Alternative Development program Logical Framework. The remainder of this chapter discusses the following topics:

The relation between data priorities and time;

A "success criterion" for the Counter-Drug/Alternative Development program;

Tracking of progress toward program targets; and

Important assumptions or exogenous variables.

2. The Relation between Data Priorities and Time

Data priorities for the Counter-Drug/Alternative Development program will change over time. At the end of the program, data which measures success at achieving the Strategic Objective ("replacement of coca-based economic activity by non-coca based economic activity") must have priority. Replacement of coca-based by non-coca-based economic activities, will take time, however, and even preliminary results may not be available for many months. In the meantime, the Counter-Drug/Alternative Development program will have to be managed, explained, and justified.

Early in the program, available data and information will consist of: 1) explanation of Strategy; 2) baseline data; and 3) projections of program impact. Mid-way in the program the program must, of course, report on the extent to which coca-for-non-coca economic replacement has occurred. Also, mid-way in the program, there must be reporting on the areas covered by the program Targets in Table 2. Note that most of the Targets are of the type: non-coca-attractive economic incentive structure in place and operating.

3. A Success Criterion for the Counter-Drug/Alternative Development Program

The heart of any management information (or monitoring and evaluation) system is a success criterion for distinguishing between success and failure. Planning and management of the Counter-Drug/Alternative Development program will be simpler, and the program will have greater likelihood of success if there is a shared, simple, measurable objective.

For projects, the success criterion, according to A.I.D.'s Logical Framework system, is stated as the Purpose level objective, and is measured as End of Project Status

(EOPS). For a program, according to A.I.D.'s Program Logical Framework, the success criterion is stated as the Strategic Objective, and is measured by Program Performance Indicators.

In the Counter-Drug/Alternative Development Logical Framework, the success criterion (Strategic Objective) is stated as:

Replacement of coca-based economic activity by economic activity not based on coca.

Economic activity covers many variables, including investment, production, employment, wages, exports, value added, export earnings, tax revenues, etc. All of the variables are important, and may have management or policy implications. However, it seems clear that:

- a) The positive contributions which the coca industry makes to the economies of Bolivia, Colombia and Peru are primarily in employment and export earnings;
- b) The withdrawal pains felt by Latin American countries due to withdrawal from the coca/cocaine industries will be primarily in employment and export earnings; and
- c) Both Latin American governments and the US Congress will be satisfied with a "success criterion" consisting of simultaneous coca/cocaine decreases, and off-setting non-coca/cocaine increases in employment and export earnings.

In sum, if:

- d) Coca employment and export earnings are drastically reduced and
- e) The Counter-Drug/Alternative Development program manages to replace the employment and export earnings lost through withdrawal from the coca/cocaine industry,

then victory can be declared, and achievement or non-achievement of any and all other objectives will not matter. Details on organizing and analyzing data on the Alternative Development "success criterion" are presented in Chapter III of this report, and quantification of the "success criterion" in the case of Bolivia is presented in Chapter IV.

4. Indicators for Program Targets

Although tracking progress of individual projects at meeting program Targets is the responsibility of project management, summaries of progress toward achievement of Targets are of interest to program management as well. Also, progress toward Targets, in lieu of "success criterion" data, will be necessary to explain and justify the Counter-Drug/Alternative Development program to interested outsiders, such as the press and Congress.

Data on accomplishment of Alternative Development Targets in the Logical Framework (Table 2) should be presented as soon as they are available. Note that targets are primarily of the type: a non-coca-attractive economic incentive structure. As the Logical Framework in Table 2 shows, types of Program Targets are:

Investment in alternative crops/products/services;

Economic and procedural incentives received by alternative crops/products/services as a result of policy change;

Competitive productivity of alternative crops/products/services;

Satisfaction of market requirements, especially export requirements for alternative crops/products/services;

Credit distributed to alternative crops/products/services;

Infrastructure developed, such as water, roads, electrification; and

Negative attitudes toward the coca/cocaine industry.

Tables for organizing and analyzing the data on progress toward Targets are presented and discussed in Chapter III of this report.

5. Tracking Assumptions or Exogenous Factors

In the Counter-Drug/Alternative Development Logical Framework in Table 2, the Assumptions Column presents factors crucial to program success which are outside direct control of the program. The majority of the assumptions are the responsibility of complementary efforts, primarily in the areas of coca/cocaine eradication and interdiction -- price drops due to interdiction or over-supply of coca.

Although program assumptions are influenced by eradication and interdiction efforts rather than being under A.I.D.'s direct control, the following data which track assumptions are of such importance to program success that they also have primary importance to the program MIS:

National level coca economy:

-Coca-based employment and export earnings;

Resources dedicated to coca:

-Population in coca producing areas;
-Acreage and investment dedicated to coca;
-Voluntary eradication of coca;

On-farm coca economics

-Coca growing, coca base, coca paste, coca hydrochloride, coca profits, production costs, farmgate prices, and farmgate demand;
-Over/under supply of coca/cocaine;
-Involuntary eradication of coca plants; and

Temporary economic stability produced through balance of payments support.

6. Straddle Variables

Migration and Eradication

Two variables which have been thought of by some as being under A.I.D. control, but according to MSI analysis belong among assumptions (outside factors) are: 1) migration from coca regions to regions of high economic potential, and 2) voluntary eradication of coca plants.

It is MSI's judgement, based on visits to Bolivia, interviews with project managers, and reading of analyses, that both migration and eradication respond primarily to declines in farmgate coca prices and profits caused by interdiction or over-supply. So far, migration and eradication have responded only secondarily (if at all) to opportunities and incentives presented by USAID projects. But, placement of eradication and migration in the Assumptions column does not mean they do not receive intense measurement attention -- does a farmer pay less attention to the weather because it is not under his control?

Short-Term Economic Stability

The Logical Framework in Table 2 is based primarily on Bolivia and lists temporary economic stability in the Assumptions column. This placement is not entirely accurate, since Balance of Payments support in the form of ESF funds provided by A.I.D. are directed at economic stability. We have put "economic stability" in the assumptions column based on the argument that regardless of the amount of A.I.D. balance of payments of support, economic stability is dependent on a number of factor's out of A.I.D.'s control. However, in Colombia, where A.I.D.'s primary contribution to Counter-Drug/Alternative Development may be primarily Balance of Payments support, it is possible that economic stability should be characterized as the essence of the program rather than as an important assumption affecting it.

III. DATA ORGANIZATION AND ANALYSIS

In this section, tables for organizing and analyzing data from the Counter-Drug/Alternative Development Logical Framework (See Table 2) are presented. Similar tables are available on Lotus 123, and can accept data and information in both numeric and verbal form. At first, data may be rough, even anecdotal, and therefore verbal. As the system matures, more and more of the data will be numeric, and amenable to analysis using Lotus 123 calculation programs.

A. "SUCCESS" OR STRATEGIC OBJECTIVE DATA

Chapter II explains that the "heart" of a monitoring and evaluation system is a simple, agreed-upon, and quantifiable success criterion. In a Program Logical Framework the "success criterion" is the Strategic Objective. And in the case of the Counter-Drug/Alternative Development Logical Framework (See Table 2 in Chapter II), the Strategic Objective or "success criterion" is stated as: Replacement of coca-based economic activity by non-coca-based economic activity.

To the right of the Strategic Objective in Table 2, indicators for measuring progress toward the "success criterion" are summarized, and the indicators are elaborated in Table 3. (Table 3 is a "blow-up" with more detail of the second box down in Table 2, Logical Framework.)

In Table 2, note that amongst all possible variables covered under "economic activities", employment and export earnings are chosen. "Economic activity" covers a lot of territory, but for reasons given in Chapter II, we can safely concentrate (except for sophisticated analysis) on employment and export earnings.

1. Comparisons with Baseline to Determine Progress

The horizontal axis of Table 3 presents data, and comparisons for judging the degree to which "coca-based activity" has replaced "non-coca-based activity". For filling out Table 3, the following categories of data are collected for both employment and export earnings: 1) Non-coca "now"; 2) Coca "now"; 3) Coca activity at the height of the coca industry; 4) and Non-coca activity at the height of the coca industry.

The "coca activity annually" is compared with three "baselines" to determine progress at achieving three levels of "success":

a. Total victory: Coca activity at the height of coca activity.

Table 3

DATA ORGANIZATION FOR TRACKING PROGRESS TOWARD THE STRATEGIC OBJECTIVE

Replacement of Coca-Based by Non-Coca-Based Foreign Exchange and Employment

Indicator	Before/After Comparison for Alternatives			Annual Comparisons Between Alternatives and Coca			Annual Comparison of Alternatives with Coca at its Height		
	Alts At Coca Ht.	Alts After	Progress	Alts After	Coca After	Progress	Alts After	Coca at Ht.	Progress
FOREIGN EXCHANGE (That Returns)									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
EMPLOYMENT (Direct)									
Country	"	"	"	"	"	"	"	"	"
% Female	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
% Female	"	"	"	"	"	"	"	"	"

- b. At-least-we-didn't-go-backwards success: Non-coca activity at the height of coca activity; and
- c. Momentary Success: Coca activity annually.

The three comparisons are presented in descending order of difficulty of achievement. Beating coca activity at its height represents total non-coca-for-coca replacement, and is desirable but very difficult. Beating coca activity "now" may be difficult or easy, depending on the level of coca activity "now". And beating non-coca activity at the height of coca activity is necessary, but easy.

2. Comparison of Progress at the Country and Program Levels

Under each component of "economic activity" in Table 3 are listed the words "country" and "program". "Country" refers to country-wide statistics regarding "overall private sector" non-coca economic activity. "Program " refers to groups of farms and firms, etc., with which A.I.D. missions have had direct or indirect (but identifiable) contact.

Table 3A shows how to derive conclusions from comparison of country and program data. If they both increase over time, then A.I.D. can postulate that it has contributed to an overall positive trend. If the country trend is downward, but the program trend is upward, then A.I.D. can postulate that things would have been worse without the program.

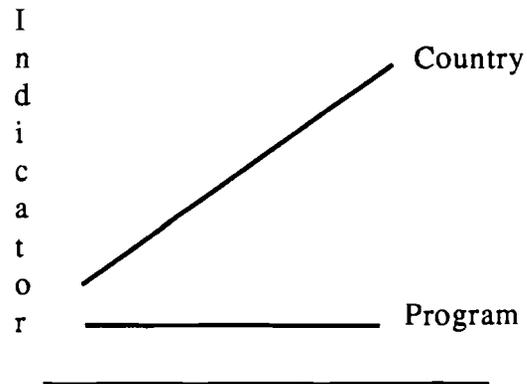
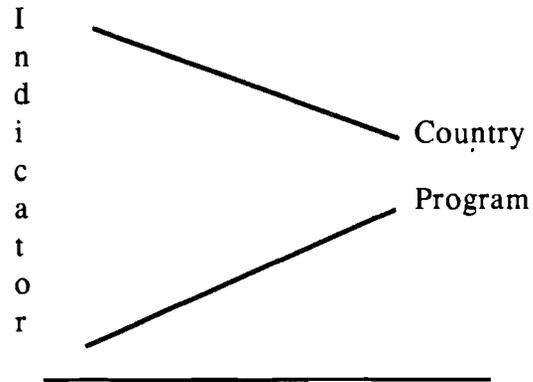
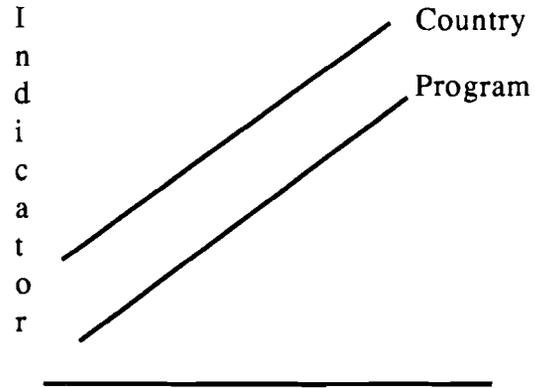
3. Complications in Analyzing Employment

Direct and Indirect Jobs: Both the coca industry and USAID assistance will generate indirect as well as direct jobs. Indirect jobs are those which arise to meet demand accompanying 1) income paid directly to job holders; or 2) creation or expansion of firms. There is no obvious reason to suppose that the coca industry would generate more indirect jobs than A.I.D. assistance, or vice versa. We have decided at this point to assume that coca and non-coca indirect jobs cancel each other out, and therefore limit measurement and calculation to direct jobs.

Net and Gross Jobs: Normally it is important to distinguish between net and gross jobs, because some "new" jobs simply replace other jobs with no net gain. Clark Joel, the USAID/Bolivia Economist, points out that in the "pure substitution" mode, where we supply jobs for the very people who previously worked in the coca/cocaine industry, information regarding "gross jobs created" is all we need. For the "modified substitution", and "pure growth" components of the Alternative Development program, however, we still may have to be concerned with calculating net jobs created.

Table 3A

INTERPRETATION OF COUNTRY VS. PROGRAM DATA



(Descriptions of the terms "pure substitution", "modified substitution", and "pure growth" are included in Part D, below, and in Appendix A.)

Direct measurement of net jobs is difficult. Normally, coefficients are established on the basis of in-depth study of samples or cases, and are then applied to gross employment figures. In general:

- a. Net job creation in the case of non-traditional products is thought to be high, because by definition there are few competitors to be put out of business by new entries;
- b. Net job creation in the case of commercial activity is thought to be low because comparative advantages tend to be small; and
- c. Net job creation for vertically integrated production, such as food processing, manufacturing, and marketing of raw production is thought to be high.

The job of developing net job creation coefficients should probably be the responsibility of the USAID/Mission Economists. Common assumptions and procedures should be adopted across the Bolivia, Colombia and Peru Missions.

4. A Fuller Treatment of the Success Criterion

Economic activity covers many variables in addition to employment and export earnings, and the additional variables may be of interest for management and communications purposes. Table 4 presents a "fuller" treatment of measuring Counter-Drug/Alternative Development Program success at "replacing coca/cocaine-based economic activity with non-coca-based activity".

In Table 4, note that the vertical axis lists the components of "economic activity". The components are listed in approximate cause-effect order, with causes at the bottom and effects at the top. The list can be altered to accommodate different situations and data availability. It is highly unlikely that the whole of Table 4 would ever be filled out. However, data, to the extent it is available, should be arrayed in Table 4 because even an incomplete data set may prompt conclusions and insight.

B. PROGRAM TARGET DATA

Table 5 presents a data organization and analysis format for economic and procedural incentives received by non-coca economic activity. The source of the economic and procedural incentives is policy change. The vertical axis lists types of economic and procedural incentives. The horizontal axis lists a continuum of various

Table 4

DATA ORGANIZATION FOR TRACKING PROGRESS TOWARD THE STRATEGIC OBJECTIVE

Replacement of Coca-Based by Non-Coca Based Economic Activity

Indicator	Before/After Comparison for Alternatives			Annual Comparisons Between Alternatives and Coca			Comparison of Alternatives with Coca at Its Height		
	Alts At Coca Ht.	Alts After	Progress	Alts After	Coca After	Progress	Alts After	Coca at Ht.	Progress
TAXES									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
FOREIGN EXCHANGE (That Returns)									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
EXPORT VALUE									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
PROFITS									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
WAGES									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
EMPLOYMENT (Direct)									
Country	"	"	"	"	"	"	"	"	"
% Female	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
% Female	"	"	"	"	"	"	"	"	"
PRODUCTION									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
ACRES UNDER CULTIVATION									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"
INVESTMENT									
Country	"	"	"	"	"	"	"	"	"
Program	"	"	"	"	"	"	"	"	"

Table 5

DATA ORGANIZATION FOR TARGET 2

Economic and Procedural Incentives for Non-Coca Economic Activity

	POLICY ADOPTION (Nominal)	POLICY IMPLEMENTATION			ADVANTAGE OR SAVINGS
		Decision Type	Number/Quantity	Economic or Procedural Result	
Taxes					
Exchange Rate					
Interest Rate					
Procedures					

types of progress, ranging from mere nominal policy adoption, through policy implementation, to real economic advantages and savings.

Table 6 presents a data organization and analysis format for competitive productivity of alternative crops/products/services. If alternatives are to represent an attractive investment for farmers and industrialists, then selling prices to consumers must be competitive with those of other producers. Since selling prices to consumers depend in large part on production costs, productivity in terms of costs per unit output must be competitive with that of other producers.

The vertical axis of Table 6 lists possible types of alternative activity (agriculture, manufacture, etc). The horizontal axis lists data regarding production costs of: 1) alternative production in Bolivia, 2) alternative production by competitors outside Bolivia, and 3) of coca. When new products or services are being introduced, they often go through several stages before reaching economic viability. Therefore, under each type of alternative activity are listed: experimental, demonstration under farm conditions, and mass production.

Table 7 presents a format for organizing and analyzing data on satisfaction by alternative crops/products/services of market requirements, especially for export. The vertical axis of Table 7 lists possible types of alternatives. The horizontal axis lists various types of market requirements, and comparisons for predicting profit margins. When new products or services are meeting market requirements, they often go through several stages before reaching economic viability. Therefore, under each type of alternative activity are listed: formally tested, market tested, and normal sales.

A data organization and analysis format for Credit distributed to alternative crops/products/services is presented in Table 8.

Progress in the Infrastructure (Roads, Water and Electrification) might be measured and reported as follows:

- Capacity constructed or installed;
- Potential use;
- Actual use and traffic;
- Short-term employment in construction and installation; and
- Enterprises and new crops/products services springing up nearby.

Table 6

DATA COLLECTION FOR TARGET 3

Competitive Productivity for Alternative Crops/Products/Services

	DATA			POSSIBLE COMPARISONS		
	Alternative Production Cost	Competition Production Cost	Coca Production Costs	Comparison to Competition	Comparison to Coca	Comparison to Possible Sales Price
AGRICULTURE						
Experimental						
Demo Under Production Conditions						
Mass Production						
AGRICULTURAL PROCESSING						
Experimental						
Demo Under Production Conditions						
Mass Production						
MANUFACTURING						
Experimental						
Demo Under Production Conditions						
Mass Production						
SERVICES						
Experimental						
Demo Under Production Conditions						
Mass Production						
MINING						
Experimental						
Demo Under Production Conditions						
Mass Production						
TOTALS						
Experimental						
Demo Under Production Conditions						
Mass Production						

Table 7

DATA COLLECTION FOR TARGET 4

Satisfaction of Market Requirements for Alternative Crops/Products/Services

	DATA				POSSIBLE COMPARISONS		
	Arrival at Market	Price	Quality	Taste/Style	Unit Profit Margin	Potential Market Share	Comparison to Coca at Ht.
AGRICULTURE							
Tested/satisfied							
Test Market							
Normal Sales							
AGRICULTURAL PROCESSING							
Tested/satisfied							
Test Market							
Normal Sales							
MANUFACTURING							
Tested/satisfied							
Test Market							
Normal Sales							
SERVICES							
Tested/satisfied							
Test Market							
Normal Sales							
MINING							
TOTALS							
Tested/Satisfied							
Test Market							
Normal Sales							

Table 8

DATA COLLECTION FOR TARGET 5

Credit Distributed to Non-Coca, Alternative Activities

	DATA			
	Loan Number	Loan Amount	Repayment Rate	Repayment Amount
AGRICULTURE				
Pure substitution				
Modified substitution				
Economic Growth				
AGRICULTURAL PROCESSING				
Pure substitution				
Modified substitution				
Economic Growth				
MANUFACTURING				
Pure substitution				
Modified substitution				
Economic Growth				
SERVICES				
Pure substitution				
Modified substitution				
Economic Growth				
MINING				
TOTALS				
Pure Substitution				
Modified Substitution				
Economic Growth				

Pure Substitution, Modified Substitution, and Economic Growth refer to different clienteles, and different relationships to the drug problem. For explanation see Table 11.

C. DATA ON ASSUMPTIONS

Important external factors which affect progress toward achievement of the Strategic Objective are called "assumptions" in A.I.D.'s Logical Framework system. In this instance, "assumptions" consist primarily of progress by complementary law enforcement efforts.

Management of any project or program requires awareness of, and reaction to, factors outside management control. This is especially true for the LAC Bureau's Counter-Drug/Alternative Development program because the outside factors are so overwhelming.

The program Logical Framework in Table 2 shows that important external assumptions affect project progress at all levels. Assumptions which affect achievement of the Strategic Objective appear in the Logical Framework at the Strategic Objective level and below, and are presented in a data collection and analysis format in Table 9.

Tracking of Assumptions support decision making in the following ways:

Coca economic activity at the country level should determine when to concentrate program efforts at a country and continental level. When coca economic activity is low, there are more opportunities for alternatives to coca, and when coca economic activity is high, emphasis must be on law enforcement.

Market conditions and prices for alternatives to coca should determine or condition production and marketing efforts for alternatives.

Migration to and from coca regions should determine or condition the geographic regions for development and promotion of alternatives.

Coca costs, prices, demand, and profits at the farm level should determine or condition where and when to concentrate at the micro/project level. When profits are low, actual and potential coca workers will be looking for alternatives.

D. PORTFOLIO MIX AND STRATEGY

1. Analysis and Presentation of the Portfolio Mix

How to maintain credibility for the Counter-Drug/Alternative Development program while waiting for the employment and export earnings results to materialize is a

Table 9

DATA FOR TRACKING ASSUMPTIONS

Progress of Complementary Efforts

	At Height of Coca	Trend Points	Now	Progress
DECREASED COCA-BASED ECONOMIC ECONOMIC ACTIVITY (Country Level)				
PRIMARY				
Export earnings				
Employment				
SECONDARY				
Profits				
Wages				
Value added				
Production				
RESOURCE DEPLOYMENT TOWARD ALTERNATIVES TO COCA				
Population in regions with high non-coca economic potential				
Population in coca regions				
Acreage dedicated to coca				
Voluntary eradication of coca				
INCENTIVE STRUCTURE ADVERSE TO COCA/COCAINE INDUSTRY (Farm Level Economics)				
Minimum sufficient set:				
- Coca profit margin				
- Coca farmgate price				
- Coca production cost				
- Coca farmgate demand				
International credit, rating, status				
LAW ENFORCEMENT				
Decreased drug use				
Drug violence				
Involuntary eradication of coca				
Seizure of coca, weapons, vehicles				

serious problem. The "indicator" and "success criterion" approach is only a partial answer, and must be augmented, especially early in the program, by convincing presentations of strategy.

Table 10 gives a format for developing and presenting strategy. The horizontal axis lists different clientele for Alternative Development efforts. The vertical axis lists the different non-coca-attractive economic incentives that A.I.D. efforts can offer or promote.

Different clientele for Alternative Development efforts are:

- a) Pure substitution (same people/same land): Alternatives to coca are followed by the ex-coca workers on ex-coca land.
- b) Modified substitution (same type people/different land): People with regional and demographic characteristics similar to coca workers produce alternatives to coca on different land, possibly in their regions or origin.
- c) Broad economic growth (different people/different land): People in general produce alternatives to coca anywhere, and the employment and income opportunities trickle to ex-coca or potential coca workers.

Table 11 presents the pros and cons of concentrating on each of the clienteles. A more complete discussion is included in the 'Illustrative "AID/LAC Anti-Drug Briefing Book" submitted with this report.

Components of the incentive structure are: economic and procedural incentives derived from policy, markets and productivity derived from technical assistance, credit distribution derived from credit funds and mechanisms, and negative attitudes toward coca/cocaine. Types of projects are of the economic growth, modified substitution, and pure substitution types. Table 11 presents a simple tool for directing projects toward creation of a non-coca-attractive economic incentive structure.

Table 12 classifies components of USAID/Bolivia's Alternative Development strategy according to the different clientele. Table 12 shows that there has been a general historical progression from narrower toward broader interpretations of Alternative Development. Table 12 shows that the first project followed a pure substitution interpretation; the third followed a modified substitution concept, and later project "recruits" to the Alternative Development program straddle between modified

Table 10

A Tool for Linking Projects to the Alternative Development Program

	PROJECT CLIENTELES AND LOCATIONS		
	PURE SUBSTITUTION	MODIFIED SUBSTITUTION	ECONOMIC GROWTH
INCENTIVE TYPES	Ex-coca Workers and Land	Coca Worker Demographics, non-coca Land	People, and Land with Economic Potential
POLICY BASED			
Economic/Financial			
Taxes			
Interest			
Exchange			
Etc.			
Procedural and Regulations			
PROJECT BASED			
Infrastructure			
Roads			
Water			
Electricity			
Etc.			
Proven Productivity			
Proven Marketability			
Credit			

Table 11

THREE DIFFERENT INTERPRETATIONS OF ALTERNATIVE DEVELOPMENT

Pure Substitution: Same People/Same Land

Positive:

- 1) We complement the law enforcement stick with a carrot.
- 2) If successful we leave land owners engaged in coca with stable employment and income, and less likely to continue or re-enter the coca industry.

Negative:

Basic logic problems.

- 1) We are entirely at the mercy of law enforcement success at driving farmgate demand, and prices down.
- 2) It is difficult to offer incentives and services to ex-coca workers without also giving them to current coca workers.

MODIFIED SUBSTITUTION: SAME TYPE PEOPLE/DIFFERENT LAND

Positive:

If successful we:

- 1) Leave people susceptible to the coca's siren with stable employment and income, and less likely to enter the coca industry.
- 2) We may deprive the coca industry of manpower.

Negative:

- 1) We will almost be definition not focus on regions with the highest economic potential.
- 2) Our success is significantly dependent on law enforcements success at driving coca farmgate demand and prices down.
- 3) Coca workers come from so many parts of Bolivia. Therefore there may be no manageable set of regions which represents a critical mass for depriving the coca industry of labor.

BROAD ECONOMIC GROWTH: (DIFFERENT PEOPLE, DIFFERENT LAND)

Positive:

- 1) Gives much freedom of action. You do what you would have done without the coca problem, but with more money.
- 2) You can focus on regions and groups of people with high economic potential.
- 3) We are not dependent on the effectiveness of law enforcement.

Negative:

We may leave the people engaged in coca:

- 1) Worse off than before, and
- 2) Susceptible to continuing or re-entering the coca business. Trickle down, trickle sideways do not work perfectly, quickly or completely.

Table 12

The USAID/Bolivia Alternative Development Portofolio

DIRECT PROJECTS	ORIGIN DATE	BUDGET	ALTERNATIVE DEVELOPMENT CONCEPT
Chapare Regional Development	1983	\$36,263K	Pure Substitution Modified Substitution
Chapare Elect.	1985	\$41,628K	
Chapare/Upper Valleys Development	1988	\$72,247K	
OVERLAP			
Rural Roads III	1991	26,670K	Modified Substitution and/or Economic Growth
Rural Electrification	1991	\$20,000K	
Micro/Small Enterprise	1988	\$14,120K	
Market Towns Capital Formation	1986	\$41,900K	
Agricultural Producer Associations	1986	\$6,700K	Economic Growth
Export Promotion	1988	\$11,500K	
BOP Support			
SUPPORT PROJECT			
Narcotics Awareness	1987	\$400K	
National Household Survey	1990	\$1,717K	

substitution and broad economic growth interpretations. The Balance of Payments support component of Alternative Development has always operated according to an economic growth interpretation.

2. Analysis and Presentation of Strategy

Table 13 presents a more complete version of the Objective Tree in Table 1. Strategic planning and presentation of Counter-Drug/Alternative Development strategy may benefit from this more complete Objective Tree. A more complete discussion of the tree is included in Appendix A of this report.

Table 13

ALTERNATIVE DEVELOPMENT/ANTI-NARCOTICS PROGRAM STRUCTURE

	SHORT TERM	DEVELOPMENT	ERADICATION	LAW ENFORCEMENT
LAC BUREAU GOALS ↑ USG GOALS	Sustained, Broad-based Economic Growth	Stable	Democratic Societies Government Institutions that Merit Confidence	
				Decreased US Cocaine Use Decreased US Cocaine Supply Increased US Cocaine Prices
SOBTB ALTERNATIVE RJ ECONOMICS AS T ↑ REDEPLOYMENT OF RESOURCES		INCREASED NON-COCA ECONOMIC ACTIVITY Increased Non-Coca Economic Activity	COCA ECONOMIC BALANCE Decreased Coca-Based Economic Activity	
	Improved international Credit, Investment Ratings, Status	Increased Non-Coca Acreage, Investment Migration from Coca Regions to Regions with High Economic Potential		Decreased Coca Acreage, Investment
COCA-AVERSE INCENTIVE STRUCTURE ↑ PROJECTS AND PROGRAMS	Economic Stability Payments Balance Costs of Narcotics Program Covered	Economic, Procedural Incentives Markets, Productivity, Credit, Infrastructure	Negative Attitudes toward Coca Eradication Incentives	Decreased Coca Profitability
	Balance of Payments Support Social Services Employment Generation	Portfolio with: Economic Growth Modified Substitution Pure Substitution Components	Preventive Education Eradication Fund	Seizure of: traffickers, cocaine, vehicles, weapons Involuntary Eradication
AID ROLE	AID'S Role Varies	AID, USTR Are Primary	AID Role Varies	AID Has No Role
	SHORT-TERM	DEVELOPMENT	ERADICATION	LAW ENFORCEMENT

IV. DATA COLLECTION AND SOME SAMPLE DATA

A. DATA COLLECTION

Ideas on Data Sources

MSI opportunity under this contract to do practical data collection work was very limited. Data sources can not really be known until data is really collected. Functioning data sources will have to be worked out through experience, abetted by workshops run by the contractor who implements the management information system.

Tables 14 and 15 give ideas on data sources for Indicators and Assumptions from the Counter-Drug/Alternative Development Logical Framework in Table 2. The illustrative "AID/LAC Anti-Drug Briefing Book" submitted with this report pulls together data as it was available at the time of this work. In general, data low in the Indicator column of the framework are the responsibility of individual projects and activities, and data high on the framework are the responsibility of program staff, and/or the Mission Economist, and/or the contractor team set up to monitor the Counter-Drug/Alternative Development Program in all three involved countries.

Note in Table 15 that much assumptions data come from the coca industry at the national and farm levels. Coca industry data are tracked by US and Latin American Government law enforcement and narcotics awareness organizations (UDAPE and NAU in Bolivia). Whereas data on production of coca leaves is relatively easy to track, production and profits for the processing stages (paste, base, and hydrochloride) are difficult because they require access to criminal environments.

Collection of "Success" Data (Export Earnings and Sustainable Jobs)

"Success" of the Counter-Drug/Alternative Development program is defined by the program Logical Framework as "replacement of coca economic activity by non-coca economic activity". As explained in Chapter II, "economic activity" covers a lot of territory, but can be simplified.

On the Alternative Development side we measure:

- a) Sustainable jobs outside the coca industry at both the a) country, and b) program level; and
- b) Program-generated, non-coca export earnings at both the a) country and b) program level.

Table 14

TENTATIVE DATA SOURCES FOR INDICATORS

	INDICATORS	DATA SOURCE
GOAL		
Growth = Increased GDP, Per Capita Income		World Bank Analyses
Sustained = Over Time		
Broad-based = Diversification (Ag, Man, Serv)		
STRATEGIC OBJECTIVE		
	ALTERNATIVES	
Export Earnings	Country Level	Newspapers for leads
Employment	Program Level	AID projects' employment tracking
TARGETS		
Investment in Alternatives		
Ag	Country Level	Newspapers for leads
Ag proc		
Man	Program Level	AID project's investment tracking
Serv		
Economic and Procedural Advantages for Alternatives		
Taxes	Country Level	Newspapers for leads
Exchange		
Interest		
Procedures	Program Level	Export organization records
Competitive Productivity of Alternatives		
	Exp. Demo. Oper.	
Ag	Country Level	Technical assistance records
Ag proc		
Man	Program Level	
Serv		
Satisfaction of Market Requirements by Alternatives		
	Exp. Demo. Oper.	
Ag	Country Level	Newspapers for leads
Ag proc		
Man		
Serv	Program Level	Export organization records
Credit distributed to alternatives		
Ag	Country Level	World Bank analysis
Ag proc		
Man	Program Level	Credit institution records
Serv		
Negative attitudes toward coca/cocaine		
Health	Country Level	Newspaper clippings
Ethics		
Economics		
	Program Level	Questionnaire
Productive Infrastructure for alternatives		
Capacity installed		
Short-term employment		
Use		
New crops/products/services		

Table 15

TENTATIVE DATA SOURCES FOR ASSUMPTIONS

(Progress of Complementary Projects)

Assumptions	DATA SOURCES
<ul style="list-style-type: none"> - Stable, democratic society - Civilian, political, military confidence in government 	Newspapers for anecdotes leads Maybe unnecessary
Favorable world markets for alternatives to cocaine	
National Coca Economy: Decreases in coca-based employment export earnings	USAID/HCG economist analyses
Decreased Investment in Coca: Increased population in areas with economic potential Decreased acreage dedicated to coca Voluntary eradication of coca	<p>???</p> <p>Aerial photos DEA</p> <p>HCG organization records</p>
Host Government and Other Donor Contributions/Activities	Newspapers for leads
Farm Level Coca Economy: Decreased farmgate coca profit, prices, demand Increased production costs for coca Over-supply of coca	<p>USAID/HCG economic analyses</p> <p>USAID/HCG economic analyses</p> <p>USAID/HCG economic analyses</p>
Seizure of cocaine, weapons, airplanes	Newspapers, DEA

And on the Counter-Drugs side we measure:

- c) Jobs in the coca industry; and
- d) Coca-based foreign exchange earnings

Therefore, every component of the Counter-Drug/Alternative Development program must develop a way to measure export earnings generated, and sustainable jobs created.

Non-coca exports should be easy to track for projects directed at exports at national levels. The major challenge is to track new jobs created by the Counter-Drug/Alternative Development program. For micro and small enterprise projects, a rough before-loan/after-loan measure should be relatively easy using loan forms and visits to samples of loan recipients. Clark Joel, the USAID/Bolivia Economist, says there are simple methods for estimating jobs created around roads and electrification projects. Tracking jobs created by broad technical assistance, and balance of payment support are more difficult.

A workshop is needed for the M&E people from each component to meet together to learn how to share ideas on, and develop a coherent approach to, measuring jobs created. During the workshop it is important to determine the extent to which job creation occurs during implementation of the project. The earlier the better, in terms of our relations with AID/Washington, the U.S. Congress, and host governments, etc. The idea that we have to wait several years for employment results may be false.

B. SOME SAMPLE DATA

What Does Total Victory Look Like for Bolivia?

Making good progress toward achievement of objectives is more likely when it is known in simple, concrete terms, what total success and victory look like. Mr. Clark Joel, the USAID/Bolivia Economist, has made some rough attempts, based on some conservative assumptions, at estimating employment and export earnings derived from the coca/cocaine industry by Bolivia during the industry's height (1989). Mr. Joel estimates that in 1989:

- a) There were approximately 160,000 people directly employed in the coca business in the Chapare; and
- b) Export earnings from coca/cocaine returned to the Bolivian economy amounted to approximately between US\$100 Million and US\$200 Million annually.

Therefore, if we manage, directly or indirectly, to participate in the achievement of:

- a) 160,000 new non-coca jobs, and elimination of most or all coca jobs; and
- b) \$100-200 million in export earnings, and elimination of most or all coca/cocaine export earnings

then USAID/Bolivia, together with the Bolivian Government and other participating agents, can declare total victory.

APPENDIX A

**Criteria for Designing Counter-Drug/
Alternative Program Components**

October 20, 1990

TO: Deborah Caro, Wayne Tate, and Sonia Aranibal,
USAID/Bolivia

FROM: Roger Popper, Management Systems International

SUBJECT: CRITERIA AND TOOLS FOR DESIGNING, RE-DESIGNING AND
EXPLAINING USAID/BOLIVIA'S ALTERNATIVE DEVELOPMENT
PORTFOLIO

The Basis for the Criteria Presented Here

The criteria and tools presented here are based on experience I acquired under three small contracts with USAID/ Bolivia and the LAC Bureau in Washington. In one way or another, the contracts have required:

Reading of principle studies and project documents, including the recent evaluation of Alternative Development in the Chapare, and Associated High Valleys of Cochabamba;

Interviews with past and present project and GOB personnel, and PDAR and DIRECO personnel in Cochabamba;

Interviews with IBTA extension agents, coca eradicators, and receivers of PL480 credit in the Chapare.

The criteria for designing and redesigning Alternative Development projects and activities are divided into the following three sections:

- A. Analysis of the Alternative Development portfolio mix;
- B. Advantages and disadvantages of the economic growth, modified substitution, and pure substitution approaches to Alternative Development
- C. USAID/Bolivia statements of the Alternative Development Objective
- D. The logic and structure of the USAID/Bolivia Alternative Development program;
- E. A "success criterion" for monitoring, evaluating and reporting on the Alternative Development program; and

Appendix A

Each section is written around a table or chart which applies program analysis tools to the Alternative Development program. Each section ends with conclusions and recommendations, and the conclusions and recommendations are gathered in a summary section at the end of this memo.

A. ANALYSIS OF THE USAID/BOLIVIA ALTERNATIVE DEVELOPMENT PORTFOLIO MIX

Table 1 presents an ordered list of components currently included in USAID/Bolivia's Alternative Development program. The projects are ordered vertically along a continuum of "Alternative Development interpretations" that reaches from pure substitution to economic growth.

Different interpretations of Alternative Development are:

- 1) Pure substitution (same people/same land): Alternatives to coca are produced by the ex-coca workers on ex-coca land.
- 2) Partial substitution (same people/different land): ex-coca workers produce alternatives to coca after emigrating to different land, possibly in their regions of origin.
- 3) Modified substitution (same type people/different land): people with the similar regional and demographic characteristics to coca workers produce alternatives to coca different land, possibly in their regions or origin.
- 4) Broad economic growth (different people/different land): people in general produce alternatives to coca anywhere, and the employment and income opportunities trickle to ex-coca workers.

The partial substitution interpretation of Alternative Development is probably not implementable. Outside coca growing areas it is difficult to distinguish between ex-coca growers and people who resemble them. Therefore, in practice, partial substitution degenerates into modified substitution.

Table 1 shows that there has been a general historical progression from narrower toward broader interpretations of Alternative Development. Table 1 shows that the first project followed a pure substitution interpretation; the third followed a modified substitution concept, and later recruits to the Alternative Development program straddle between modified substitution and broad economic growth interpretations. The Balance of Payments support component of Alternative Development has always operated according to a an economic growth interpretation.

Appendix A

Conclusion: In its Action Plan USAID/Bolivia's commits to "a concerted and integrated approach to meeting U.S. counter narcotics objectives in Bolivia". It is time to make good on the commitment. The portfolio analysis in Table 1 is a preliminary and tentative attempt at such a "concerted, integrated approach".

Recommendation: The analysis in Table 1 should be expanded, and modified, torn apart, and put back together until it represents a clear and compelling portrait of USAID/Bolivia's Alternative Development Program. The analysis should be continually updated, and sent to interested parties, such as the US Congress. At least it will improve communications, and at may improve the quality and effectiveness of the program.

B. ADVANTAGES AND DISADVANTAGES OF THE ECONOMIC GROWTH, MODIFIED SUBSTITUTION, AND PURE SUBSTITUTION APPROACHES TO ALTERNATIVE DEVELOPMENT

The following rough analysis of advantages and disadvantages of different approaches to Alternative Development, and is summarized in Table 1a.

Advantages of the Economic Growth Approach: 1) It gives much freedom of action. You do what you would have done without the coca problem, but, due to the coca problem, you have more money to do it with. 2) Economic development is what AID has traditionally done. Presumably we are already good at it. 3) We are not dependent on the success of law enforcement to drive farmgate coca demand and prices down.

Disadvantages of the Economic Growth Approach: The economic growth interpretation assumes there is trickle down, trickle sideways, all the boats rise, new jobs start a chain reaction of employment vacancies which are eventually filled by people from the coca industry, etc. Nevertheless, it would be foolish to assume that the economic growth approach works perfectly or quickly. Therefore, a pure economic growth interpretation: 1) may leave the people engaged in the coca industry: a) worse off than before, and b) susceptible to continuing in or reentering the coca industry.

It would be comfortable to believe that economic growth by itself can result in a reduced coca industry. The logic of the belief, however, needs analysis. It would seem that Bolivia and its economy are large enough, and there is enough idle labor, land and production capacity to accommodate the simultaneous growth of both the non-coca and coca sectors. In fact, it would seem that the coca sector might nourish the non-coca sector if we adopt a pure economic growth, (AID business as usually) approach.

Appendix A

Advantages of the Modified Substitution (Similar People/Different Land) Approach: If we provide jobs and income in areas and within demographic groups which produce migration to coca areas and participation in the coca industry, then we will leave people susceptible to the coca industry: 1) with stable employment and income, and 2) less likely to migrate to coca producing areas, and re-enter the coca industry. Modified substitution may deprive the coca industry of manpower more effectively than would an economic growth interpretation.

Disadvantages of the modified substitution (similar people/different land) approach: If we provide jobs and income for "susceptible" regions and demographic groups, we will almost by definition not focus on regions and demographic groups with the highest economic growth potential. In fact we may be obligated to invest in areas and people with low economic growth potential.

Since the modified substitution approach focuses on people likely to work in the coca region, our success will be partially dependent on the effectiveness of law enforcement at forcing farmgate coca profits down. Our dependence on the success of law enforcement is not as total as it is for the pure substitution interpretation (same people/same land), but we are dependent of law enforcement success nevertheless.

When and if coca price rise very high, people susceptible to the coca siren will go to the Chapare, no matter what we do, rendering ineffective our efforts to create alternatives. There is some evidence that the modified substitution approach can successfully stem migration to coca production regions. However there is no reason to believe that the approach can attract new people through a "development poles" strategy.

People who migrate to the Chapare to work in the coca industry seem to come from all over Bolivia. Therefore there may be no finite set of regions which represent a "critical mass" for depriving the coca industry of labor. A repetition of the Cochabamba High Valleys approach in Potosi, Chuquisaca may have only a marginal effect on the coca labor force, no matter how well done.

Advantages of the Pure Substitution (Same People/Same Land) Approach: If we succeed in providing alternative jobs and income for people who remain in coca growing areas, then we will leave them less likely to re-enter the coca industry, and we will definitely leave the coca industry of key manpower. People who leave coca due to law enforcement are less likely to return to it when law enforcement abates.

We provide a "carrot" to complement the law enforcement "stick" in directly eliminating coca production. The major force in driving

Appendix A

people out of coca is reduction of farmgate coca prices and profits. However, offering coca growers alternatives to coca, almost certainly encourages the decision to leave coca.

Disadvantages of the Pure Substitution (Same People/Same Land) Approach: Pure substitution must confront the following three "design logic problems":

- a) Success of the pure substitution approach depends almost totally on the effectiveness of law enforcement at driving coca profits down;
- b) With pure substitution it is difficult to offer production support or social services to non-coca, and ex-coca growers without offering them also to coca growers; and
- c) Giving eradication rewards, and preferential rewards to ex-coca growers in effect rewards coca growers over people who never grew coca.

Law enforcement efforts produce wildly swinging farmgate coca prices, and parallel wildly swinging opportunities for: technical assistance for alternative crops, voluntary eradication, and credit distribution. Therefore, effective work within the pure substitution approach requires a quick response capability which makes careful planning, especially regarding manpower and fund availability, difficult. Congress has criticized USAID/Bolivia for not being able to take advantage of the recent drop in the farmgate price for coca.

The pure substitution interpretation requires that technical assistance and credit people work in close proximity to law enforcement efforts. Consequently there may be danger, and the risk of a "tainted image".

The pure substitution interpretation requires, almost by definition, that development efforts not be focused in areas of highest economic growth potential.

Conclusions:

- a. Alternative Development projects follow pure substitution, modified substitution, and economic growth models.
- b. The three models complement each other. For example, the modified substitution approach is more likely to succeed under conditions of general economic growth.
- c. A degree of diversification is healthy in any portfolio.

Appendix A

Betting on three horses gives a better chance of winning than betting on one.

- d. On the one hand, it is important that there be debate and decision making based on the value of the economic growth, modified substitution, and pure substitution Alternative Development approaches.
- e. On the other hand, it is also important that decision makers realize that different approaches to Alternative development all have their value and place. I believe I detect tendencies to: 1) belittle the pure substitution variant, and 2) confuse and collapse the modified substitution, and economic growth variants.

Recommendations:

- a. Within each Alternative Development component the meaning and value of the economic growth, modified substitution, and pure substitution approaches should be debated, and be the basis for decision making at design and management levels. There will be trade-offs between the advantages and disadvantages of each approach. (In the Section above some advantages and disadvantages of the various interpretations are discussed.)
 - b. Even if no design changes are made as a result of the debate, the projects must explain its relationship to the Alternative Development effort, perhaps in the context of the Economic Growth, Modified Substitution, and Pure Substitution interpretations of Alternative Development. (Congressional Presentations will require this.)
 - c. Recruits to the Alternative Development effort (such as Micro-and Small Enterprise, Export Promotion, and Rural Roads III) currently straddle between economic growth and modified substitution approaches to Alternative Development. Therefore debate and decision making among Alternative Development approaches is, over the short term, most urgent for those projects.
- C. USAID/BOLIVIA STATEMENTS OF THE ALTERNATIVE DEVELOPMENT OBJECTIVE

Current USAID/Bolivia documents give various combinations of economic growth, modified substitution, and pure substitution interpretations of the Alternative Development objective.

Economic Growth:

Appendix A

"Progressive transformation of the Bolivian economy from reliance on coca to a diversified, sustainable and growing economy that does not depend on coca."

"Increase investment, productivity and employment in non-coca activities."

Pure and Modified Substitution Together

"Develop alternative sources of income and employment for people actually or potentially engaged in the production, processing, or marketing of coca."

Pure Substitution, Modified Substitution, and Economic Growth Together

"Currently, USAID's approach is to continue with economically viable interventions in the Chapare and associated high valleys, but in conjunction with a broader and more concerted program."

Conclusions:

- a. Current USAID/Bolivia documents give various combinations of the economic growth, modified substitution and pure substitution interpretations of the Alternative Development objective.
- b. Portfolio analysis showed us that: a) The Alternative Development portfolio includes projects which operate according to all three interpretations; b) The three approaches complement each other, that is improve each others' effectiveness; and c) Diversification among approaches reduces risk.

Recommendation: Alternative Development objectives and strategy statements must encompass, distinguish among, and justify the economic growth, modified substitution, and pure substitution approaches to Alternative Development.

D. STRUCTURE OF THE ALTERNATIVE DEVELOPMENT PROGRAM

USAID/Bolivia's Action Plan says "...U.S. commitment to resolving the cocaine problem in this hemisphere has dramatically intensified through the general outlines of the Bennett plan. The entire U.S. Mission in La Paz has been active in developing a concerted and integrated approach to meeting U.S. counter narcotics objectives in

Appendix A

Bolivia."

Table 2 is a tool for "developing concerted, integrated approaches to meeting U.S. counter narcotics objectives", and development objectives as well. Table 2 presents the logic, and the division of responsibility and objectives for USAID/Bolivia's Counter Drug/Alternative Development program. Of particular interest are the Table's attempt to

1. Connect AID's traditional economic development objectives on the one hand with the Bennett Plan's counter narcotics objectives on the other; and
2. Identify areas of synergy and collaboration among short-term, development, eradication, and law enforcement efforts.

Alternative Development/Counter Narcotics Program Logic

The program logic is presented by the vertical axis, and consists of the following hypotheses, reading from top to bottom.

Hypothesis One:

To reach sustained, broad-based economic growth in Bolivia, it is necessary to

Replace coca-based economic activity by economic activity not based on coca/cocaine.

Hypothesis Two:

To replace coca-based economic activity by economic activity not based on coca/cocaine, it is necessary to

Redeploy resources away from coca and toward substitutes and alternatives to coca/cocaine.

Hypothesis Three:

To redeploy resources away from coca and toward substitutes and alternatives to coca/cocaine, it is necessary to

Create an incentive structure which is coca-averse, and favors substitutes and alternatives to coca/cocaine.

Hypothesis Four:

To create an incentive structure which is coca-averse, and favors substitutes and alternatives to coca/cocaine, it is necessary that:

Appendix A

Short term efforts create a stable economic and social environment over the short term;

Development efforts produce incentives for alternatives to coca/cocaine; and

Eradication and law enforcement efforts produce incentives against coca/cocaine.

Division of Responsibilities and Objectives

Division of program responsibilities and objectives are represented by the horizontal axis of Table 2, and divides responsibilities and objectives among: short term, development, eradication, and law enforcement. USAID/Bolivia's responsibilities and objectives lie primarily in the development column, but also extend at spots into the short-term and eradication columns.

Instances where objectives cut across horizontal categories are not typographical errors. Such instances mean that objectives are shared by more than one program component. For example

"Sustained, broad based economic growth" is shared by the

short-term, and development components;

"Stable democratic societies" is shared by the development, eradication, and law enforcement components; and

"Increased non-coca/coca economic balance" is shared by the development, eradication, and law enforcement components.

The Program/Project Link

The problem in turning program objectives into practice is to find a cause effect chain reaching from Goals and Strategic Objectives to implementable activities. In USAID/Bolivia's case, according to Table 2, the program/project link consists of projects that create a coca averse/alternative positive incentive structure.

Components of the incentive structure are: economic and procedural incentives derived from policy, markets and productivity derived from technical assistance, and credit distribution derived from credit funds and mechanisms, and negative attitudes toward coca/cocaine. Types of projects are of the economic growth,

Appendix A

modified substitution, and pure substitution types. Table 3 presents a simple tool for directing projects toward creation of a coca averse incentive structure.

Two questions which arise upon examining program/project links are:

1. What does export promotion have to do with projects in the Chapare, where agriculture is unsophisticated, and transport is difficult? Just because coca and cocaine are export products, does not mean that their replacement is an export product. Solution to the foreign exchange problems caused by withdrawal from coca/cocaine need not come from ex-coca growers from the Chapare, but can come from other components of the Alternative Development program.
2. What part do mining and big business pay in the scheme of things? Bolivia's economy and employment base has always be largely based on mining. And big business, as well as micro and small business, can be an efficient generator of jobs and income.

The Relation of Migration and Coca Eradication to USAID/Bolivia Efforts

Some USAID studies and documents give the impression that 1) migration from coca regions to regions of high economic potential, and 2) voluntary eradication of coca plants are under USAID program control. Table 2, however, shows migration and voluntary coca eradication to be only marginally influenceable by USAID. Experience to date seems to show that both migration and

eradication respond primarily to drops in farmgate coca prices and profits caused by interdiction. So far migration and eradication have responded only secondarily (if at all) to opportunities and incentives presented by USAID projects.

Until AID develops strategies so powerful that they cause migration and eradication rather than merely respond to it, the two variables represent do represent measures of USAID/Bolivia Alternative Development accomplishment, but rather context in which to interpret it.

Conclusions:

- a. In its Action Plan USAID/Bolivia commits to but has not yet completed "concerted and integrated approach to meeting U.S. counter narcotics objectives in Bolivia" by the "entire La Paz Mission". It is time to make good on the commitment.
- b. Program analysis tools such as the "Development Program

Appendix A

Structure" at least, improve packaging and communication of "concerted, integrated approaches". And they may improve design of "concerted, integrated approaches".

Recommendation: As soon as possible, program tools should be applied thoroughly to the Alternative Development program. The results should be communicated to AID Washington, the State Department, Congress, and the Bennett Plan people, etc. At least, communications and the image of your program in those quarters will improve. In addition, program tools may improve the quality and effectiveness of the program.

E. A SUCCESS CRITERION FOR THE ALTERNATIVE DEVELOPMENT PROGRAM

Note in Table 2 that at the "alternative economies level" the words above the "development" column appear the words, "increased non-coca/coca economic balance" are in capital letters. This means that it may represent the "success criterion" for USAID/Bolivia's Alternative Development program.

The heart of any Monitoring and Evaluation system is a "success criterion" for distinguishing between success and lack of it. It seems clear that

Neither increased non-coca based economic activity alone, nor decreased coca-based economic activity alone are satisfactory will satisfy the and Bolivian Governments who provide resources for the Alternative Development program; and

USAID/Bolivia's Alternative Development program will be considered successful to the extent that the "non-coca/coca economic balance" improves, regardless of progress or lack of it relative to other objectives listed on Table ___.

In Table 2 "all roads lead to", and "all chickens come home to roost" at a "positive non-coca/coca balance". In the following paragraphs some ideas on how to calculate the "non-coca/coca economic balance" are discussed.

Calculation of the Degree of Success of USAID/Bolivia's Alternative Development Program

In Table 4 is presented a possible "heart" and success criterion for a system that monitors and evaluates the USAID/Bolivia's Counter-Drug/Alternative Development program. Table 4 presents the data collection and analysis necessary for measuring "coca/non-coca economic balance".

In Table 4 note that the vertical axis lists the components of

Appendix A

61

"economic activity". The components are listed in proximate cause-effect order, with causes at the bottom and effects at the top. The list can be altered to accommodate different situations and data availability.

Under each component of "economic activity" are listed the words "country" and "target". "Country" refers to country wide statistics regarding non-coca economic activity. "Target" refers to groups of farms and firms etc. with which AID missions have had direct or indirect (but identifiable) contact. The "country" category includes "overall private sector" performance.

The horizontal axis of Table 4 presents data, and "progress" comparisons for judging the degree to which "coca based activity" has replaced "non-coca-based activity". To fill out Table 3, the following data are needed: Alternatives now, alternatives at the height of the coca industry, coca now, and coca at the height of the coca industry.

In the right hand part of Table 4, non-coca activity "now" is compared with:

1. Non-coca activity at the height of coca activity;
2. Coca activity "now"; and
3. Coca activity at the height of coca activity.

Non-coca and coca activity at the height of coca activity are used as base-lines. The three comparisons are presented in order of difficulty of achievement. Beating non-coca activity at the height of coca activity is necessary but easy. Beating coca activity "now" is relatively easy, depending of course on the level of coca activity "now". And beating coca activity at its height is desirable, but very difficult.

Many details remain to be worked out such as:

What constitutes high, a satisfactory, and a low "non-coca/coca balance"? (On the one hand it is clearly necessary that "non-coca activity now" surpass "coca activity now". On the other hand, it is unrealistic to expect that "non-coca activity now", will surpass "coca activity at its height".)

How do we combine results from "pure substitution", "modified substitution", and "economic growth" approaches to Alternative Development?

Conclusion: The Alternative Development program must come to agreement on a simple, meaningful "success criterion". A promising

Appendix A

candidate is "positive coca/non-coca economic activity balance".

Recommendation: USAID/Bolivia should decide on a "success criterion" now, and begin collecting baseline data now. The "success criterion" will make management and communications with interested parties such as the US Congress simpler and more focused.

F. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations regarding criteria for designing redesigning, and explaining USAID/Bolivia's Alternative Development portfolio are in the areas of: 1) application of program analysis tools, 2) a mix of approaches to Alternative Development, 3) statements of Alternative Development objectives and strategy, and 4) a "success criterion" for monitoring, evaluating and reporting.

1. Application of Program Analysis Tools

Conclusion:

In its Action Plan USAID/Bolivia has committed to "a concerted and integrated approach to meeting U.S. counter narcotics objectives in Bolivia" by "the entire La Paz Mission". It is time to make good on the commitment. The portfolio analysis in Table 1, and the Program Structure in Table 2 are preliminary and tentative attempts at a "concerted, integrated approach". At least, the Tables will improve packaging and communication of "concerted, integrated approaches". And maybe the analysis will improve the effectiveness of USAID/Bolivia's "concerted, integrated approaches".

Recommendation:

The portfolio and structure analyses presented in Tables 1 and 2 should expanded, modified, torn apart, and put back together until they present a clear and compelling portrait of USAID/Bolivia's Alternative Development strategy. The analyses should be periodically updated, and sent to interested parties, such as the AID/Washington, the State Department, Congress, and the Bennett Plan people, etc. At least, the image of your program will improve. In addition, programing tools may improve the quality and effectiveness of the program.

2. A Mixed Portfolio of Approaches to Alternative Development

Conclusions:

a. Alternative Development projects apply pure substitution,

Appendix A

modified substitution, and economic growth approaches. The three can be defined as follows:

Pure substitution (same people/same land): Alternatives to coca are produced by the ex-coca workers on ex-coca land.

Modified substitution (same type people/different land): people with the similar regional and demographic characteristics to coca workers produce alternatives to coca different land, possibly in their regions or origin.

Broad economic growth (different people/different land): people in general produce alternatives to coca anywhere, and the employment and income opportunities trickle to ex-coca workers.

- b. The three approaches complement each other. For example, the modified substitution approach is more likely to succeed under conditions of general economic growth.
- c. A degree of diversification is healthy in any portfolio. Betting on three horses gives a better chance of winning than betting on one.
- d. On the one hand, it is important that there be debate and decision making based on the value of the economic growth, modified substitution, and pure substitution Alternative Development approaches.
- e. On the other hand, it is also important that decision makers realize that different approaches to Alternative development all have their value and place. There may be tendencies to: a) belittle the pure substitution variant, and b) confuse and collapse the modified substitution, and economic growth variants.

Recommendations:

- a. Within each Alternative Development component the meaning and value of the economic growth, modified substitution, and pure substitution approaches should be debated, and be the basis for decision making at design and management levels. There will be trade-offs between the advantages and disadvantages of each approach. (In the Section above some advantages and disadvantages of the various interpretations are discussed.)
- b. Even if no design changes are made as a result of the debate, the relationship of each project to the Alternative Development effort must be explained, perhaps in the context

Appendix A

of the economic growth, modified substitution, and pure substitution interpretations of Alternative Development. (Congressional Presentations will require this.)

- c. Recruits to the Alternative Development effort (such as Micro-and Small Enterprise, Export Promotion, and Rural Roads III) currently straddle between economic growth and modified substitution approaches to Alternative Development. Therefore debate and decision making among Alternative Development approaches is, over the short term, most urgent for those projects.

3. Statements of Alternative Development Objectives and Strategy

Conclusions:

- a. Current USAID/Bolivia documents give various combinations of the economic growth, modified substitution and pure substitution interpretations of the Alternative Development objective.
- b. Portfolio analysis showed us that: a) The Alternative Development portfolio includes projects which operate according to all three interpretations; b) The three approaches complement each other, that is improve each others' effectiveness; and c) Diversification among approaches reduces risk.

Recommendation:

Alternative Development objectives and strategy statements must encompass, distinguish among, and justify the economic growth, modified substitution, and pure substitution approaches to Alternative Development.

4. A Success Criterion for the Alternative Development Program

Conclusion:

To simplify management and communications, and make them more effective, the Alternative Development program must come agree on a simple, meaningful "success criterion". A promising candidate is "positive coca/non-coca economic activity balance". "Economic activity" includes investment, hectarage (where appropriate), production, employment, wages, profits, income, exports, foreign exchange, and taxes.

Recommendation:

Appendix A

USAID/Bolivia should decide on a "success criterion" now, and begin collecting baseline data now. The "success criterion" will make management and communications with interested parties such as the US Congress simpler. If the "positive coca/non-coca economic activity balance" is chosen, then baseline data for the "success criterion" includes economic activity for coca and alternatives at the height of the coca industry, or some meaningful average.

APPENDIX B

**Recent Washington Post Articles
on the Counter-Drug/Alternative Development Program**

U.S. Tempers Expectations of Quick Anti-Drug Victory in Bolivia

By Eugene Robinson
Washington Post Foreign Service

LA PAZ, Bolivia—U.S. officials have long said their strategy of attacking the drug trade in the Andean cocaine-producing nations has its best chance of quick success here in Bolivia, and have backed up that conviction with a growing commitment of manpower, technical aid and money.

But now, perhaps on the verge of breakthroughs, the anti-drug fight here is up against the same circumstances that make progress so difficult in neighboring Peru and Colombia—entrenched corruption, growing sophistication on the part of drug traffickers and the first signs of political terrorism.

As a result, the anti-drug fight here, as elsewhere in the region, is being seen as a long-haul proposition that will require years of attention and resources.

"On the whole, the effort is going as well as can be expected," said a U.S. diplomat involved in the anti-narcotics war, "bearing in mind that it is a problem that cannot possibly be solved without protracted effort involving a number of years of patience."

The most immediately worrisome new factor is the emergence of political violence directed against Americans, highlighted by an Oct. 10 bombing at the residence housing the U.S. Embassy's contingent of Marine guards.

There were no U.S. casualties, but a Bolivian policeman who was guarding the

house was killed and another was injured. Two men pulled up in front of the residence and staggered out of a car, pretending to be drunk. They then opened fire on the two Bolivians stationed in front of the house and set off a powerful bomb that destroyed the front gate. "Miraculously," according to an embassy spokesman, it did not injure the three Marines inside.

U.S. officials here see the attack as part of a string of incidents stretching back to the Aug. 8, 1988, bombing of a motorcade carrying then-Secretary of State George P. Shultz on the outskirts of La Paz.

In May 1989, two Mormon missionaries were assassinated. Around last Christmas, the U.S. Embassy was bombed. On the same night that the Marine residence was bombed, another explosion toppled a statue of John F. Kennedy that had stood in a La Paz square.

"There is a qualitative difference between the political terrorism here and that in Colombia and Peru," said U.S. Ambassador Robert S. Gelbard. "Here, Americans are the primary target, as we've seen over the past couple of years."

In Colombia, violence sponsored by the Medellin and Cali cocaine cartels and by political groups on the left and the right claims thousands of lives each year, and puts some parts of the country effectively beyond the reach of law enforcement.

In Peru, anti-narcotics efforts in the Upper Huallaga Valley—source of more than half the world's coca, the plant from which

cocaine is made—are consistently thwarted by the presence of Shining Path guerrillas.

A previously unknown leftist group called the Nestor Paz Zamora Command—named after President Jaime Paz Zamora's late brother, a former guerrilla who fought against Bolivia's military rulers two decades ago—claimed responsibility for the Marine bombing. U.S. officials also have been threatened by a right-wing group calling itself the Consorts of Death, believed to be sponsored by drug traffickers.

Neither group is believed to be large or to have popular support, but U.S. officials are taking the threats and incidents seriously and have revamped security procedures.

In Bolivia, coca is grown in a region on the eastern slopes of the Andes called the Chapare and then flown north to the lowland Beni and Pando regions for processing.

The U.S. strategy here is to disrupt that flow, cutting off the peasant growers from the traffickers who buy their coca leaf. The idea is to interfere with demand by blocking the access of coca to the market, thus driving the price of coca so low that it makes sense for growers to take advantage of government programs that pay them to switch from coca to other crops.

Earlier this year, U.S. officials were sure they had succeeded. The price of a 100-pound bale of coca had dropped from its August 1989 high of nearly \$90 to just \$11 in April.

Farmers were rushing to take advantage of programs under which the Bolivian gov-

ernment paid them \$2,000 cash for each 2.2-acre parcel of coca they switched to other crops, plus \$6,000 in U.S.-backed credit assistance. Some officials believed they had been successful in pushing the coca price below the farmers' break-even point.

However, in what U.S. officials call a seasonal fluctuation—and what other experts call the market's return to normalcy after absorbing a glut-like bulge in the coca supply—the price of a bale of coca shot back up to nearly \$50 in September. Now the price is said to hover around \$30.

Farmers have voluntarily converted more than 15,000 acres of coca to other crops this year, although U.S. officials acknowledge that some growers secretly plant new coca fields on other land under their control while at the same time gladly taking the government's conversion money. Nevertheless, Gelbard said he is convinced that this year Bolivia will see its first-ever net reduction in coca acreage.

U.S. Drug Enforcement Administration agents, working with the Bolivian anti-narcotics force UMOPAR to attack trafficking networks, had what they describe as their biggest success to date in late September with a series of raids on an organization allegedly headed by Carmelo Dominguez, described as one of the top half-dozen traffickers in the country.

Dominguez had been attracting attention with his large purchases of coca paste, a substance produced as one of the

intermediate steps on the way from coca leaf to finished powdered cocaine. Officials say he was working to fill a large order placed by the Colombia-based Cali cartel, which is trying to take advantage of the growth opportunities presented by Colombian authorities' continuing campaign against the violent, once-dominant Medellin cartel.

In coordinated strikes, DEA and UMOPAR arrested Dominguez and his top aides and pilots, and seized nine airplanes, two hangars, a trove of records, nearly \$300,000 in cash and a discotheque headquarters Dominguez allegedly owned in Santa Cruz, a booming lowland city that is home to many of Bolivia's major traffickers.

During that raid, DEA agent Hawthorne Hope was shot—the first action-related casualty in the DEA's expanding Andean drug war. Hope is now convalescing in the United States. In a follow-up raid, UMOPAR and the DEA arrested a suspect in the shooting.

The recent raids, while hailed as a breakthrough, also illustrated the increasing sophistication of the Bolivian drug trafficking rings. What once were thought of as mom-and-pop, shoestring operations now have airplanes, advanced communications equipment and high-tech laboratory facilities for refined cocaine.

Like the governments of Peru and Colombia, that of Bolivia has been less than enthusiastic about U.S. efforts to enlist Andean armed forces in the drug fight.

The Victims of Bolivia's War on Drugs

12/1/90

It is extremely surprising, to say the least, to see questions being raised in the United States about the degree of success in the fight against drugs in Bolivia, and even more so, to see the country put at par with other much more heavily affected countries in regard to terrorism within its borders ["U.S. Tempers Expectations of Quick Antidrug Victory in Bolivia," news story, Nov. 30].

Any doubts about the speed with which the eradication of excess coca, interdiction and seizures of paste have been carried out in the country, should, in fact, relate to the wisdom of continuing at the current pace. By all standards Bolivia has so far achieved victories in these endeavors, which are far above the goals agreed to for a year with the American government. Bolivia may have reached a point where it has become a victim of its very success.

It should be clear by now that the production of the coca leaf in Bolivia responds, first, to an ancient tradition among its Indian peasants, which has been passed down the generations since the days of the Inca Empire; and, second, to the utter lack of alternative economic activities for poor farmers for whom coca represents their very livelihood.

The success of the Bolivian government in razing coca plantations is contributing heavily to the alarming unemployment and concomitant misery among its poorest population. Poor Indian farmers who have voluntarily chosen to take advantage of

U.S.-sponsored programs to eliminate excess coca production have found themselves alone and with no alternative source of employment.

Bolivia is committed to the elimination of excess coca production and has openly stated that 100 percent eradication can and will be achieved within five years if international cooperation is forthcoming for the country's Alternative Development program. We believe this compares favorably to the United States' intention to reduce cocaine demand by 50 percent during the next 10 years.

It is becoming increasingly clear, however, that the unemployment and discontent being continuously augmented by drug policies are not being offset by the creation of jobs for those left without a means of livelihood. The international community's support in general, and particularly that of the United States as proclaimed in Cartagena, has been long in coming. What is even more worrisome is that in spite of our government's efforts to attract American and other foreign investment to the country, private investment, which is so welcomed in Bolivia because it could provide decent jobs for our people, has plummeted since 1985, and not because Bolivia has not presented the right conditions.

Also, we utterly reject any suggestions that place Bolivia on the same blacklist as other countries well known for terrorism. Indeed, there have been bombings and other attempts against civilians in La Paz; under no circumstance, however, can they be compared to the outright wars now being waged in other countries. If the number and frequency of attacks in La Paz were compared to those in some major capitals of the world—or to the number of murders in the District of Columbia, for that matter—I believe La Paz would look like a placid and boring place.

As to the alarmist opinions of American officials in La Paz who have stated that Americans are the primary targets of terrorist attacks in Bolivia, please let me remind you that the cases that have been most cited in

the international press lately involve not the American community in La Paz, but the kidnapping of a Bolivian industrialist and the threats of political, not drug-related, groups on the lives of President Paz Zamora and other government officials.

Further, nowhere is it mentioned in the article that the dismantling of the CNPZ, the group that claimed responsibility for the attempt against the U.S. Marines' residence, the bombing of the John F. Kennedy memorial and kidnapping of the Bolivian industrialist, could not have started on a more auspicious note than it recently has.

What is fair to ask, however, is whether these outbursts in Bolivia are not being fanned by social discontent and unemployment, and whether the extreme success of the fight against drugs coupled with the lack of investment and jobs are not, in the end, abetting the problems for which the country and its government are being questioned.

JORGE CRESPO-VELASCO
Ambassador of Bolivia
Washington

The Washington Post

EUGENE MEYER, 1875-1960
PHILIP L. GRAHAM, 1915-1983

DONALD E. GRAHAM
Publisher

BENJAMIN C. BRADLEE Executive Editor
LEONARD DOWNE JR. Managing Editor
MEO GREENFIELD Editorial Page Editor
STEPHENS S. ROSENFELD Deputy Editor

ROBERT G. KAISER
Deputy Managing Editor

THOMAS H. FERGUSON
President and General Manager

VICE PRESIDENTS

NICHOLAS CANNISTRARO Advertising/Marketing
MICHAEL CLURMAN Production
F.J. HAVLICEK Industrial Relations and Personnel
BOISFEUILLET JONES JR. Counsel
ELIZABETH ST. J. LOKER Advanced Systems
THEODORE C. LUTZ Business Manager
THOMAS O. MIGHT Advertising Director
VINCENT E. REED Communications
DONALD S. RICE Operations
MARGARET SCOTT SCHIFF Controller
RALPH S. TERKOWITZ Data Processing

Published by The Washington Post Company

KATHARINE GRAHAM
Chairman of the Board
RICHARD D. SIMMONS
President

1150 15th St. NW-Washington, D.C. 20071 • (202) 334-6000

59