

CLASSIFICATION
PROJECT EVALUATION SUMMARY (PES) - PART I

1. PROJECT TITLE Bolivia Elections Project	2. PROJECT NUMBER 511-0587	3. MISSION/AID/W OFFICE USAID/Bolivia
	4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) 85-3	
<input type="checkbox"/> REGULAR EVALUATION <input checked="" type="checkbox"/> SPECIAL EVALUATION		

5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING A. Total \$ 3,050,000 B. U.S. \$ 2,300,000	7. PERIOD COVERED BY EVALUATION	
A. First PRO-AG or Equivalent FY 85	B. Final Obligation Expected FY 85	C. Final Input Delivery FY 85		From (month/yr.) 01/85	To (month/yr.) 03/85

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., sirgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICE RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
<p>Following an analysis of the Bolivian electoral laws and the characteristics of the Bolivian electorate, the firm of Deloitte, Haskins and Sells recommended to USAID/Bolivia the equipment and procedures, which would be necessary to assist the Bolivian National Electoral Court in meeting its electoral responsibilities in the 1985 presidential and congressional elections. In March 1985, however, the Government of Bolivia declined the project assistance.</p>	<p>W. Garvelink DP USAID/Bolivia</p>	

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS	10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT
<input type="checkbox"/> Project Paper <input type="checkbox"/> Implementation Plan e.g., CPI Network <input checked="" type="checkbox"/> Other (Specify) N/A <input type="checkbox"/> Financial Plan <input type="checkbox"/> PIO/T <input type="checkbox"/> Logical Framework <input type="checkbox"/> PIO/C <input type="checkbox"/> Other (Specify) <input type="checkbox"/> Project Agreement <input type="checkbox"/> PIO/P	N/A A. <input type="checkbox"/> Continue Project Without Change B. <input type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan C. <input type="checkbox"/> Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)	12. Mission/AID/W Office Director Approval
	Signature <i>David A. Cohen</i>
	Typed Name David A. Cohen Acting Director
Clearances: DP: WGarvelink <i>WGC</i> DP: RLeón de Vivero <i>RLV</i>	Date 5/15/85

BOLIVIAN NATIONAL ELECTORAL REGISTRY

SYSTEM REQUIREMENTS

UNITED STATES AGENCY
FOR
INTERNATIONAL DEVELOPMENT
CONTRACT NO. 511-0587-C-00-5080-01

MARCH 1985

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THE BOLIVIAN ELECTORAL REGISTRATION SYSTEM

Deloitte Haskins & Sells (DH&S) has prepared this report for USAID which identifies the requirements necessary for the design and installation of a voter registration and vote tabulation system for the Bolivian elections scheduled to be held June 1985. The report summarizes our findings with regard to the seven tasks identified in the initial scope of work.

In the first section, the report will address the major shortcomings of the present registry system and the need for the establishment of a modern and centralized system to circumvent many of these shortcomings. The second section will elaborate upon the required data elements that are generated from the electoral registry book, and the data required for the registration.

The third section will detail the design of the registry forms to be used in a computerized and centralized registry system. Control mechanisms will be discussed as well as alternative methods of transcribing information from registry forms.

The fourth section provides instructions for electoral registrars in filling out transcription forms supplied by the project. The instructions are written in Spanish and cover all issues with regard to handling and processing the forms for purposes of the project.

The fifth section identifies all requirements for the site of operations in La Paz which will be responsible for storing, transcribing, keyboard entry, and verification of information provided on registration forms. Specific details are included with regard to functional requirements, site requirements, and power requirements.

The sixth section identifies the data processing equipment necessary for the project. The seventh section outlines preliminary plans for monitoring and control procedures to be incorporated in the project. These procedures are to provide reasonable assurance that the registration is conducted in accordance with legal and procedural requirements and that the registry therefore contains only valid, eligible names. This section will also provide an overview of the proposed system, including data gathering and data preparation processes, computer data input processes, and project management for data processing.

I. ANALYSIS OF SHORTCOMINGS OF THE REGISTRY SYSTEM

Bolivia's present electoral registry system, which is prescribed by the Electoral Law (see Appendix A), has serious shortcomings and problem areas that will be summarized and addressed in this section. The principal shortcomings of the registry system are the following:

1. Lack of a centralized system capable of verifying and monitoring the validity of registrations on a permanent basis. The present system lacks the means (i.e., modern, fast and efficient equipment) and the necessary information flows to insure that electoral registrations are legally valid.

2. Confusing and contradictory legal provisions concerning the establishment of a centralized registry under the auspices of the National Electoral Court. The existing system is dependent on registration data collected from Electoral Registrars, who are charged with screening and updating the electoral registry. Electoral Registrars, however, do not have access to information with which to screen and monitor the registry. Only the National Court, with proper equipment and centralized information, could reasonably maintain and update an electoral registry on a permanent basis.

3. Lack of information to enable Electoral Registrars to adequately screen registrants. For example, civil authorities do not regularly report deaths of individuals; there are no means for tracking citizens whose voting rights have been suspended; and Registrars have no information on individuals who have registered at other locations or with other Registrars.

4. Identification requirements for registration which lend themselves to abuse and fraud. Currently, only a National Identification card, a Military Service booklet, or a copy of a Birth Certificate are valid documents for voter registration. The National Identification card is susceptible to fraud as follows:

- a. The same person may possess more than one card.
- b. Two persons may have the same card number.
- c. Cards belonging to deceased individuals may be used by other persons.

Likewise, Birth Certificates are readily available and are quite vulnerable to fraud. On the other hand, there are four types of Military Service Booklets (each with its own sequential numbering system) which might result in multiple registration for one individual.

5. Ineffective sanctions for violations of registration laws. Persons who provide false data when registering only face nominal fines. Also, the sanctions are not easily imposed given the serious lack of information the status of individuals' voting rights. Thus, there is no effective deterrent system against fraudulent registrations.

To assist in overcoming some of these system deficiencies, DH&S believes that a centralized electoral registry system should be established under the auspices of the National Electoral Court, which would continuously update and amend the registry. Current regulations, particularly Article 27 of the Electoral Law, allow for the establishment of such a registry using "modern techniques." Some amendments to the Electoral Law (Articles 76 and 78) would be required to permit necessary information to be sent to the Electoral Court for purposes of changing the registry on a permanent, ongoing basis.

Similarly, such a system would need controls to limit the possibility of fraudulent or invalid registrations. The proposed system controls (the preliminary plans for which are discussed in Section VII of this report) will seek to reduce such occurrences. However, current identification requirements will still make it difficult to completely eliminate fraudulent registrations. This is one particular area, along with the deficiencies cited with the legal sanctions, which fall outside the scope of this contract.

II. DEFINITION OF REQUIRED DATA ELEMENTS

1. Data in the Electoral Registry as Established Under Electoral Law.

The Electoral Registry book contains the following information on each registrant:

a. Book Number This number corresponds to the Registrant assigned by the National Court and the Departmental Courts to each Registrar. The book number matches the Voting Table number

No book contains more than 300 registrations

b. Birth Certificate number - Two people may be enrolled on the same page of the Electoral Registry; the number of the birth certificate is printed on each individual form in the Registry. Consequently, the maximum number of birth certificates is also 300, corresponding to the maximum number of registrations in the book

c. Father's surname

d. Mother's surname

e. Name

f. Place of birth

g. Domicile: city, street, number. (In general practice, only the name of the township is registered. There is not enough space to include more ample information.)

h. Marital status

i. Educational level

j. Distinguishing features

k. Profession

l. ID card number

m. Registry date

n. Registrar's signature

- o. Registrant's signature
- p. Statistical Control - This space is not used by Registrars. It could be used to introduce additional information for our project.

2. Voter Identification Requirements for the Registry

- a) In accordance with the Electoral Law and the modifications requested by the National Electoral Court, the only valid documents for individual registration of voters are the following:

- National Identification card
- Military Service Booklet
- A copy of the Birth Certificate, duly stamped by the Civil Registry.

It is estimated that the most widely possessed document is the National Identification Card, held by approximately 65% of the population. With regard to the Military Service Booklet, no figures have been made available to DH&S consultants concerning how widely it is held, nor was it possible to contact the chief officers responsible for the military establishments involved. A copy of the Military Service Law was not obtainable. Birth certificates are very easily obtained and, accordingly, this is the form of documentation most vulnerable as far as fraud is concerned.

Control or verification methods will have to be established for each of the documents mentioned. Each method should be adapted to the characteristics of the document with which is concerned.

- b) The National ID card is a document issued for identification purposes by the General Directorate of the Ministry of the Interior and Justice. The National ID card is valid for six years from the date of issue. After this period, a citizen must appear before the authorities to renew this card. The number of the new card may or may not correspond to the number of the previous one. The internal control systems are totally manual due to the meager resources of the offices. General data on individuals (name and ID number) is recorded in index books, there being one index book per department, which is further divided into counties.

The Index Book is used as a reference to identify the identity of individuals by card number. The information contained in the Index Book is as follows:

- 1) Card number
- 2) Name and surname
- 3) Date and place of birth
- 4) Profession
- 5) Date and place of issue
- 6) Expiration date
- 7) Picture and fingerprint.

When a person dies, there is no means of automatically excluding him or her from the identification system. Systems to monitor deaths are unreliable since there is no established procedure for recovering the deceased person's ID. This deficiency results in the possibility that ID cards belonging to deceased individuals may be used by other persons until their expiration date.

It frequently happens that if an individual loses his or her card, or wishes to obtain another one, he or she will not request the same number as that of the previous card. This results in the possibility that people may possess several ID cards (with the same name but with different numbers).

When the General Directorate for Identification finds that a person has two or more ID cards, it invalidates the oldest number(s) and reassigns them to another individual. (The checking process is done manually and two or three years may pass after a second or third number is given). In this manner, the result is that for a certain period of time there can exist two ID cards with the same number assigned to different individuals.

III. DESIGN OF REGISTRY FORMS

The design of the data registry form is based upon the idea that no extra forms will be required from Electoral Registrars. This, plus the desire to avoid all chances of transcription mistakes, has induced the approach of carbon copy forms, placed underneath the pages in the Registry book .

When the registrar completes a page in the book, data would be carbon copied onto the form.

Carbon copies are sent back to the Departmental Courts, where a Departmental Control Station will compile them in batches of 50 pages.

The batches are sent to the project's Central Control Station, and the Departmental Court's files. Once in the Central Control Station, batches are referred to the National Court (one copy for filing), and to the Project's Coding and Computerized Input Section. (See figure 1).

Forms have been designed in order to fit into the registration books, using for data coding the spaces reserved for "Constancia de Sufragio". (See figures 2 and 3).

Other alternatives exist, such as transferring the transcription process to the Departmental Capitals. If such a change is required, due to lack of time or materials, information can be derived directly from the electoral books.

NATIONAL ELECTORAL REGISTRY

REGISTRY FORMS FLOW

FIGURE I

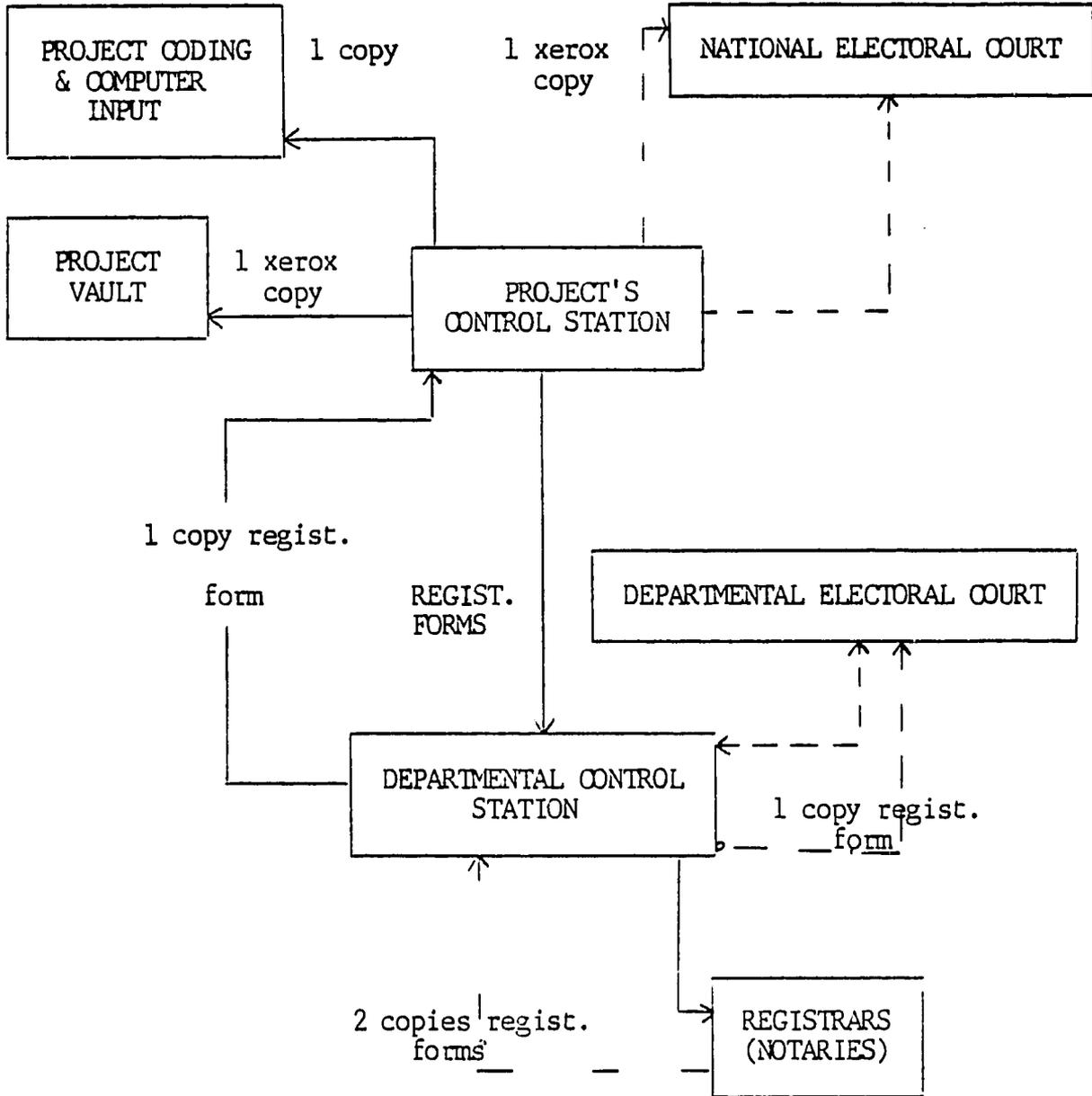


FIGURE 3

REPUBLICA DE BOLIVIA

REGISTRO ELECTORAL:

(A llenarse en la inscripción)

_____		LIBRO	PARTIDA
APELLIDO PATERNO	APELLIDO MATERNO	NOMBRE	
LUGAR DE NACIMIENTO	FECHA DE NACIMIENTO	EDAD	
DOMICILIO (LOCALIDAD - CALLE - NUMERO)		ESTADO CIVIL	GRADO DE INSTR.
SEÑAS PARTICULARES	OCUPACION	DOCUMENTO DE IDENTIDAD	
	Fecha		
Para Control Estadístico	Firma del Notario	Firma del Inscrito	Impresión Digital (Pulgar derecho)
OBSERVACIONES: _____			

CONSTANCIA DE SUFRAGIO:

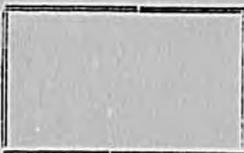
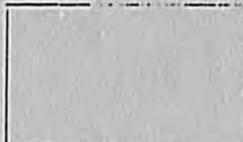
(A llenarse en la elección)

_____	Sello de la Mesa	Firma del Elector	
Presidente de la Mesa			Impresión Digital (Pulgar derecho)
Fecha			

REPUBLICA DE BOLIVIA

REGISTRO ELECTORAL:

(A llenarse en la inscripción)

_____		LIBRO	PARTIDA
APELLIDO PATERNO	APELLIDO MATERNO	NOMBRE	
LUGAR DE NACIMIENTO	FECHA DE NACIMIENTO	EDAD	
DOMICILIO (LOCALIDAD - CALLE - NUMERO)		ESTADO CIVIL	GRADO DE INSTR.
SEÑAS PARTICULARES	OCUPACION	DOCUMENTO DE IDENTIDAD	
	Fecha		
Para Control Estadístico	Firma del Notario	Firma del Inscrito	Impresión Digital (Pulgar derecho)
OBSERVACIONES: _____			

CONSTANCIA DE SUFRAGIO:

(A llenarse en la elección)

_____	Sello de la Mesa	Firma del Elector	
Presidente de la Mesa			Impresión Digital (Pulgar derecho)
Fecha			

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IV. TRANSCRIPTION INSTRUCTIONS FOR REGISTRARS

This section deals with the instructions to be followed by the Electoral Registrars (Notaries) and explains how they should proceed in filling out transcription forms supplied by the project. A model of the form is in Figure 2, and it would be handed to the Registrars in four parts (original and three carbon copies). The following instructions have been written in Spanish and are organized as follows:

1. How to use the data transcription forms
2. Technical consultations
3. Personnel for assistance and consultation
4. Remittance of registration forms to departmental registration control centers.

FORMULARIOS DE TRANSCRIPCIÓN DE DATOS
PARA EL REGISTRO ELECTORAL NACIONAL
- INSTRUCCIONES GENERALES -

INTRODUCTION

Los formularios de transcripción de datos son documentos de trabajo, complementarios a los documentos establecidos por la ley Electoral vigente. Estos formularios permitirán la formación del Registro Electoral Nacional a medida que los Electores del País se vayan registrando, sin sustraer los libros de Registro Electoral del Control de los señores notarios. La formación del Registro Electoral Nacional, facilitará a las autoridades nacionales correspondientes el control del proceso de registro y garantizará la limpieza del mismo.

Estas instrucciones son para uso exclusivo de los señores notarios y tienen por objeto facilitar el uso de los formularios de transcripción, y ponerlos al corriente de los procedimientos de remisión de los mismos. Se indican además los lugares y dependencias donde se pueden requerir explicaciones o aclaraciones.

1. Uso de los Formularios de Transcripción de Datos del Registro Electoral

- a. Los formularios constan de cuatro hojas, 1 hoja de cubierta y tres copias, con una numeración de control en el ángulo superior derecho.
- b. En el momento de proceder a inscribir el primer candidato en la hoja del libro de Registro Electoral, el señor notario colocará el formulario de registro debajo de la hoja correspondiente. Se cuidará que los cuadritos de codificación impresos en el formulario, queden debajo de la parte que corresponde a "constancia de sufragio", en el libro de registro.
- c. El señor notario solo deberá escribir en el libro de registro electoral, los formularios de registro quedarán automáticamente impresos, vía papel carbonico.
- d. Con el objeto de lograr una adecuada impresión, se deberá usar Boligrafo aplicando la presión adecuada.
- e. En el recuadro "Para Control Estadístico", en la parte inferior izquierda de cada Registro Electoral en el libro, escriba el Número de Partida correspondiente.

- f. Al escribir el domicilio en cada registro, por favor sea lo mas explicito posible en relacion a calle, número y ciudad o pueblo. (Este dato sera de utilidad para los trabajos de muestreo y control de electores, a efectuarse).
- g. Indique con claridad el tipo de documento de identificacion utilizado por el elector que se esta registrando. A continuacion indique todos los numeros y letras, si los hubiera.

NOTA:

Favor no olvidar el Numero de Partida en el recuadro "Para Control Estadístico".

2. Consultas Tecnicas

Toda consulta sobre el llenado de formularios, su remision o cualquier otro problema relacionado con el Registro Electoral Nacional se podra formular en:

- a. Centro de Control. Departamental de Registros, en la Corte Departamental Electoral.
- b. Centro de Control Nacional de Registros, en la Corte Nacional Electoral - La Paz.
- c. Oficinas del Proyecto de Registro Electoral Nacional.
(Las direcciones exactas se daran a conocer por las radio-emisoras nacionales o los diarios).

3. Personal de Asistencia y Consulta

El proyecto del Registro Electoral, asignara personal tecnico a los distintos departamentos para que den asistencia directa a los senores notarios. Estos funcionarios poseeran documentos de indentificacion provistos por la Corte Nacional Electoral. Este personal podra retirar formularios de registro ya completados, con el fin de hacer mas expeditivo el proceso de registro.

4. Remision de Formularios a Los Centros de Control Departamentales del Registro Electoral

- a. Al menos una vez por semana, los senores notarios electorales remitiran a los Centros de Control Departamental; los Formularios que hayan sido completados.
- b. Con el proposito de acelerar el proceso de registro, el personal asignado al proyecto, debidamente identificado y autorizado por la Corte Nacional Electoral, podra concurrir a las oficinas de los senores notarios y retirar los formularios que se hayan completado.
- c. Los Centros de Control Departamental procederan a revisar los formularios y a agrupar los mismos en grupos de 50 o 100, debidamente abrochados en carpetas. Como se trata de copias por triplicado, resultaran tres carpetas con igual informacion. Una carpeta se dejara en los archivos de la Corte Electoral Departamental - Las otras dos Carpetas se enviaran al Centro de Control Nacional de Registros, en la ciudad de La Paz.

V. IDENTIFICATION OF REQUIREMENTS FOR SITE OF OPERATIONS

The following have been identified as the key requirements for the site of operations:

1. Functional requirements.

For purposes of control and supervision, the functions of storage, manual transcription, keyboard entry and verification of information contained on registration forms should occur at one central site. At the same time, proper control will require a clear, physical separation of functions within the site. In addition to general administrative storage, we envision using one building with space divided according to the following functions:

- a. Office space for receipt, control, and initial storage of registration forms as they arrive from the field. We envision a need to secure a control copy of completed transcription forms as they are received from the field and before they are entered into the computer. These copies will form the basis for verification at the conclusion of the data transcription and coding phases. Such a room must be capable of being secured so that only designated personnel have access. Space requirements are roughly 25 square meters.
- b. Once control copies are secured, space will be required for manual transcription of original registration forms onto block-letter forms for subsequent data entry. This labor-intensive process requires a separate, larger space of approximately 180 square meters. Chairs and long tables will also be required.
- c. Electronic data entry. A separate space to accommodate chairs and long tables for approximately 60 persons and their data entry terminals will be needed. Workstations will be placed on both sides of the tables, with cabling running down the center. An area for supervision of blocks of tables will also be necessary. A space of about 180 square meters will be required.
- d. Verification processes. A separate area of about 25 square meters will be required for verifiers to confirm a) the transcription of data, and b) the integrity of the data.

- e. Additional, separate storage is required for processed documents and audit copies. If possible, control copies should not be in the same physical location as work copies. The required area is roughly 25 square meters.
- f. The space for the computer, its core components, and high speed printers should be isolated from the other functions, and the large number of local employees which these functions will require. Limited access controllable by a guard is a necessity.

Cabling limitations require that the CPU be within 2,000 feet of the data entry room. This computer room, of no less than 65 square meters, should be secure as well as airtight so that dust can be minimized. The floor should be load-bearing, to support the weight of the CPU and disk drives. There must also be sufficient room for on-site storage of backup tapes (or disks). Although thick walls are preferred for security reasons, at least one window into which an air conditioning unit may be installed is a necessity. Also, a programming area of approximately 4x4 meters is required and will preferably be adjacent to the CPU room. Finally, space will have to be provided for the uninterruptible power supply (UPS) and its associated batteries. A well-ventilated room is required for the batteries to avoid safety hazards.

- g. DH&S office. For reasons of efficiency and control, DH&S will locate its offices within the same building as the operations. The office will have its own, direct telephone line, and, if possible, telex. However, the office should be separate from the operations center in order to enhance security. The office must be capable of being guarded to prevent unauthorized access.
- h. Off-site storage must be available for control copies of registration forms, as well as for additional backup copies of computerized data (either on tape, or on disk). The site(s) must feature security controls similar to those required of the computer room.

2. Location of the site.

The site will be in the La Paz area for proximity to the Corte Electoral Nacional. Also, since large numbers of employees will have to travel to and from the site, the site cannot be too remote from available transportation. Based upon experience elsewhere, DH&S proposes to offer a separate, fixed transportation payment to the transcription and data entry employees (rather than attempting to provide organized transportation).

Security considerations will also influence site location. Locating in La Paz does have the drawback of being near the site of strikes, demonstrations, and other civil disorders. The site therefore will preferably not be on the ground floor, where maintaining adequate security would be more difficult. Examples of other security considerations include the preference of solid walls over glass, avoidance of a low building adjacent to taller ones, the degree to which the site may be guarded by police, and the degree to which access and mobility within the site can be controlled.

In any case, arrangements must be made with the police to ensure their protective services, as well as those of locally-hired guards.

3. Power requirements.

Power requirements are 220V, 50c for the WANG equipment. A transformer probably will also be required. To overcome unanticipated and relatively brief power outages, a 15 KVA UPS will be installed for the central computer site. In addition, smaller self-contained UPS units should be installed to enable work to continue at the terminals during possible outages. Depending on the prevailing security situation at the time, USAID officials also might consider installing a generator to cover any long-term power outages.

During DH&S' initial trip to La Paz during the week of February 10, we inspected several possible sites of operation. Based upon the above considerations and previous experience, DH&S determined that the La Paz Sheraton Hotel would be an excellent site; unfortunately, a reasonable lease could not be negotiated. The Plaza Hotel was an attractive site, but it cannot offer the large work areas available at the Sheraton. The Plaza

Hotel is considering developing a proposal based on anticipated usage of an entire floor of the hotel. We reviewed several office buildings but none offered the features required for a workable and secure operations environment.

Subsequent to the team's departure from Bolivia, both the local WANG office (Sisteco) and DH&S office have continued to search. Mr. Victor Telleria of DH&S coordinated that search. Upon returning to Bolivia, the team reviewed several additional sites. These were located at the former Hotel La Paz, the 5th and 11th floors of the Hansa Building, a building nearing construction on Veinte de Octubre, and the former Mexican Embassy (a residence).

The team recommended the Hotel La Paz location due primarily to its physical layout, security capabilities, available electrical power, as well as sufficiency of office space for managers, staff, and storage.

VI. DATA PROCESSING EQUIPMENT REQUIREMENTS

DH&S has identified the following data processing equipment as necessary for this project:

- . WANG VS 100 minicomputer (Model VS-128G) will be the centerpiece of the entire electoral registry system.
- . 1 WANG VS 15 minicomputer, to be used for program development as well as for backup of the VS 100.
- . IDPS. Input-output processes will be required for all terminal, tape, disk, printer, and diskette access.
- . 40 WANG data entry workstations (Model 4205-VS-I). The bulk of the approximately 2.5 million registrations will be entered into the minicomputer through these workstations.
- . 10 WANG combined workstations (Model 4230-VS-I). In addition to data entry, these workstations will be capable of word processing functions.
- . 10 WANG PCs (Model PC-XC3-2-I). To be used primarily for data entry. If required, these PCs may also be sent to Bolivia's nine Departmental Electoral Courts and used for vote tabulation purposes.
- . 10 VS Emulators. This equipment will allow the 10 WANG PCs (see last item) to function as data entry stations to the VS 100 minicomputer.
- . 1 fully-loaded WANG PC, including a "PC Board" for IBM software compatibility and a graphics capability. This PC will be used for project management functions on site in La Paz.
- . 51 WANG multi-lingual keyboards (Model UNI/KBD-SL).
- . 2 high-speed printers (Model 5575).
- . 1 Matrix printer (Model 5577V).
- . 1 Matrix printer, Spanish (Model 5577V).
- . 1 letter quality printer (Model 2529V).
- . 5 288-megabyte disk drives (Model 2265V-2).
- . 2 tape drives rated at 1600 BPI (Model 2209V).

1 15 KVA UPS (Uninterruptible Power Supply), with batteries sufficient for a minimum of 30 minutes of operation of the VS 100 in the absence of city power.

9 1.5-2.5 KVA UPS. These power sources will be used for the work stations to maintain some level of data entry in the event of power interruption. In addition they may later be used at the Departmental Electoral Courts to provide power for the tabulation process.

10,000 feet coaxial cable

In addition to the above, necessary data processing supplies include such items as printer ribbons, bands, daisy wheels, disks, and diskettes. DH&S will recommend that SISTECO order a basic load of supplies appropriate for this configuration.

VII. PRELIMINARY PLANS FOR MONITORING AND CONTROL REQUIREMENTS

Introduction

The objectives of the monitoring and control procedures to be incorporated into the electoral registration process are to provide reasonable assurance that the registration process is carried out in accordance with legal and procedural requirements and that the registry therefore contains only valid, eligible names. DH&S has taken into consideration demographic and electoral information derived in Bolivia in developing preliminary plans for operations and control. A summary of this information is contained in Appendix B.

Reasonable assurance is likely to be difficult to obtain, given the permitted forms of identification available for registration. In particular, the use of more than one type of identity (National ID, Military ID or Birth Certificate) allows considerable opportunity for multiple registration. In addition, the lack of controls over the National ID system means that duplicate cards may exist.

System Overview

The proposed registration process is relatively complex. Figures 4,5 and 6 present a graphic overview of the three major elements in the process, as follows:

- . Data Gathering and Data Preparation Processes (Fig. 4)
- . Computer Data Input Processes (Fig. 5)
- . Project Management - Data Processing (Fig. 6)

Each of these exhibits highlights the principal points at which controls will be established. In the following sections, each of these processes is walked through and the control points elaborated.

Data Gathering and Data Preparation process (Figure 4)

Project management will oversee and monitor data starting at the departmental level where initial data gathering, control and data distribution will be in operation (Station 2).

From Station 2, data, organized in folders of 50 or 100 registration forms, will be sent to the central control station in La Paz. There, after a new set of checks is performed, data will be sent to Stations 6 and 7, which serve as basic filing units for the purpose of back up reference and control (if needed). The main flow, however, goes to Station 4, where the crucial operation of data coding (computer input) is performed. In this station, several monitoring procedures, based upon various sampling techniques should be executed. Station 5 is the final step in the coding procedure: Should mistakes be found, they are reported back to central control.

Computer Data Input Processes (Figure 5)

Station 1 deals with short and medium term planning with regard to the use of facilities, the actual data input, and the verification of such input. In Station 2, data is re-entered, corrected or erased after manual checks are conducted on such computer outputs as those indicated in Stations 5 and 6.

Suspected delinquent registrations (Station 5) are identified through the application of screening and control software developed by DH&S. This software finds multiple registrations of the same person which may have occurred through a person's using ID's with different numbers, using different identification means, or by the use of similar names supported by various combinations of ID's. Once the screening and Control of the electoral registry is completed as previously described, sampling procedures will be applied in order to produce partial electoral listings (Station 4).

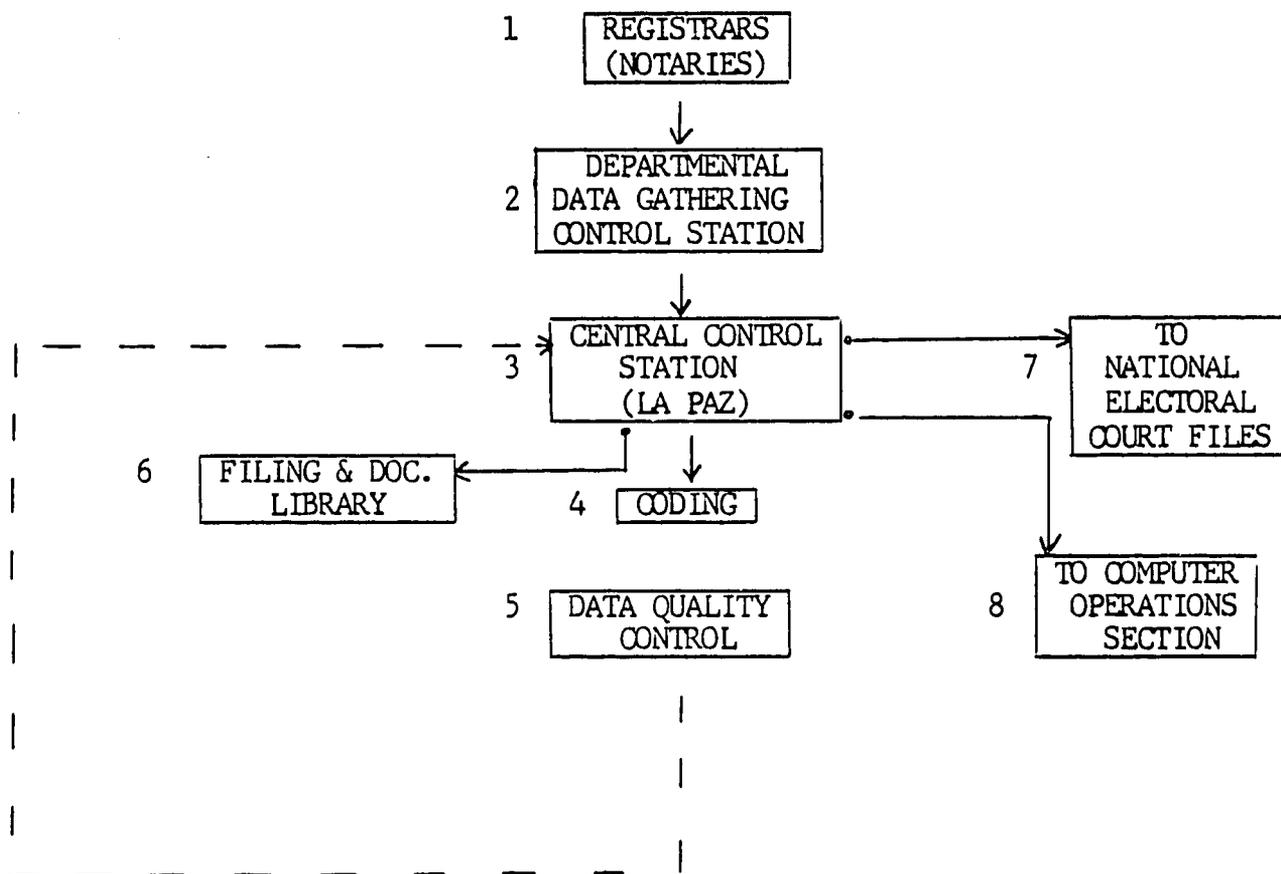
Partial electoral listings will be used by field control teams who will perform the actual "body counting" by department, province, and Electoral Book. The verification and Field Control Management office will produce reports on findings and recommendations which will be passed to the project management (See Figure 6, Stations 9, 10 and 11).

Figure 6 is an integrated diagram portraying all the operations described in this report.

BOLIVIA

NATIONAL ELECTORAL REGISTRY PROJECT
DATA GATHERING & DATA
PREPARATION PROCESSES

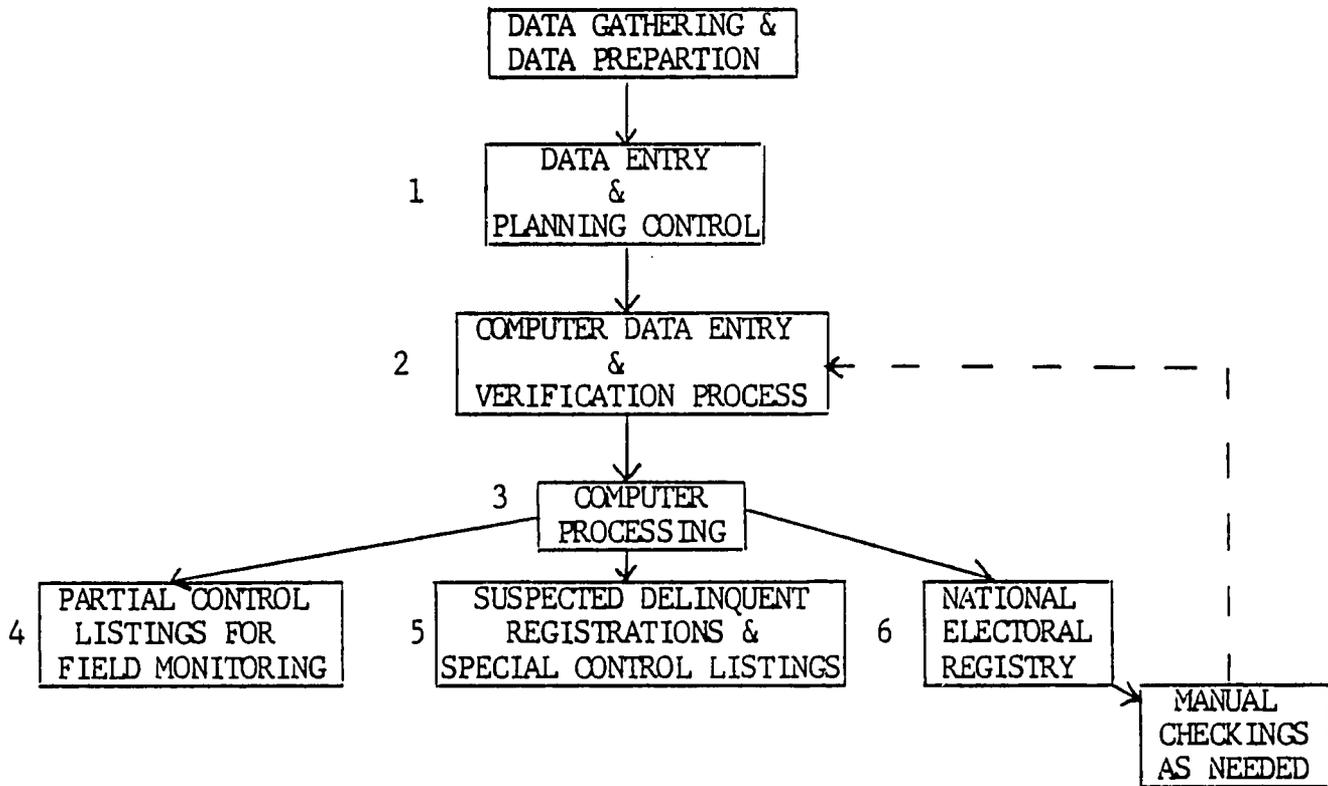
- FIGURE 4 -



BOLIVIA

NATIONAL ELECTORAL REGISTRY
COMPUTER DATA INPUT PROCESSES

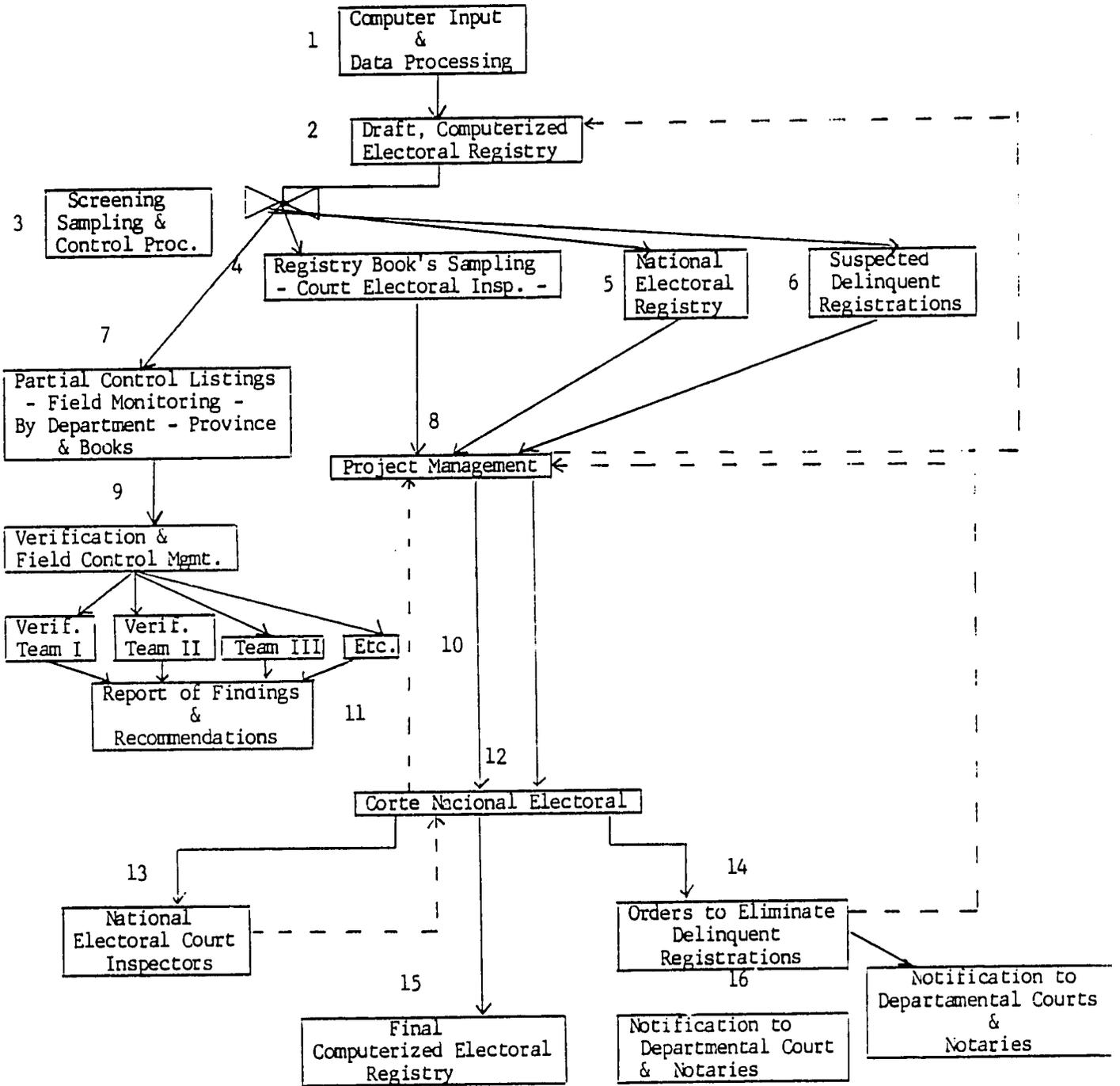
- FIGURE 5 -



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BOLIVIA
NATIONAL ELECTORAL REGISTRY

PROJECT MANAGEMENT
- Data Processing -
- FIGURE 6 -



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Appendix A. DESCRIPTION OF BOLIVIAN ELECTORAL LAW

SUMMARY OUTLINE OF THE ELECTORAL REGISTRY AND OF THE ARTICLES OF
THE ELECTORAL LAW.

- Art. 45 Individuals over 21 - Bachelors
- Art. 48 Responsibility - Registrar
- Art. 49 Documents
- Art. 50 300 Registrations - Sequential numbering
- Art. 51 Sequential numbering of books - 52 Indexes
- Art. 53 Registration card
- Art. 56 Departmental Courts - Provision of inventoried materials
- Art. 57 The National Electoral Registry
- Art. 59 Cause for non-registration
- Art. 62 Importance of Registration Card
- Art. 66 Registration deadline - 60 days prior to June 16th at 12 p.m. of the last day
- Art. 68 Important when the citizen, at the end of the registration period, has not changed domiciles
- Art. 76 Suspension of Electoral Rights

DISTRIBUTION OF ELECTORAL MATERIALS

- Art. 102 Two days before the election
- Art. 103 Distribution of materials at 6 a.m.

ELECTORAL JURIES

- Art. 87 24 hours after closing registrations, the registrar prepares a list of registered citizens to serve as jurors
- Art. 88 Convocation of the Electoral Jury - the Sunday following the closing of the registration book
- Art. 89 Qualifications for jurors

- Art. 90 Drawing of lots - 5 Jurors and 5 Alternates
- Art. 91 Jury Selection
- Art. 92 The following Sunday voting tables are constituted with their juries
- Art. 97 Voting Tables
- Art. 98 1 Book = 1 voting table
- Art. 109 110-111 - Installation of tables
- Art. 112 Minimum of 8 hours functioning
- Art. 117 Records of opening and ballot (in printed form and carbon copy)
- Art. 127 Importance of the design of the minutes form

VOTING PROCEDURE

- Art. 124 (Counting of envelopes = checking the number of citizens who have voted)
- Art. 125 Nullity of votes
- Art. 126 Provisions in case of nullity vote
- Art. 127 Paragraph d) is important as it concerns the program for computing ballot results

DEPARTMENTAL BALLOT

- Art. 132 Balloting tables - This is done by compiling the minutes from voting tables throughout the department
- Art. 133 Rules for computation. Importance of copies. Suitability of safety paper for copies
- Art. 134 Record of Departmental balloting - copies for representatives of political parties - b) Departmental Court Archives
- Art. 140 10 days after the balloting, mail everything with a report to The National Electoral Court

NATIONAL BALLOTING

Art. 141 President and Vice President (within 20 days after the election)

Art. 142 Minutes of the President's Nomination

Description of Bolivian Electoral Law

1. Registry Peculiarities With Regard to Computerization of the System

- a) Political Administrative Division. In accordance with Electoral Law the Political Administrative Division is described in Article 4 of the same. First, the nine Departments are mentioned and these are divided into Counties and Cantons. In Article 5 the Law enables the National Electoral Court to establish Electoral Districts without altering the Political-Administrative division. This consists of establishing voting locations for every 2 Cantons, or for a County and one or more Cantons, etc. This approach, if well planned, may increase voter participation by facilitating improved accessibility or transportation.
- b) Jurisdiction and Competence. Electoral Law establishes Jurisdiction and Competence in electoral matters. The order of hierarchy is understood to be as follows:

National Electoral Court - According to the Regulations Booklet, "It is the highest and permanent body in electoral matters and has jurisdiction and competence throughout the republic's territory." The Court consists of eight magistrates and eight deputies. The Magistrates appoint a President and a Vice President from among their members.

The Court is seated in the City of La Paz and is installed every three years. It is constituted as follows: a) one magistrate plus two deputies appointed by the Senate and another magistrate plus two deputies appointed by the House of Representatives; b) one magistrate and a deputy appointed by the Supreme Court of Justice; c) one magistrate and a deputy appointed by the President (with a confirmation vote by the Council of Ministers); and d) four titular delegates appointed by consensus (or by the drawing of lots if there is no consensus) from among the parties with parliamentary representation. It is important to note that, according to the Regulations Booklet, the President has a privileged vote, i.e., in the instance of a tie, the President's vote carries the decision. The Court also appoints two commissions from among its members: 1) a Judicial Commission (three voting members), and 2) an Administrative Commission (three voting members)

Departmental Electoral Courts - These courts have jurisdiction in their own department and are constituted as follows: a) one Magistrate and two deputies appointed by the Senate and the House of Representatives; b) one magistrate and a deputy appointed by the President of the Republic (with a confirmation vote by the Council of Ministers); c) four magistrates and four deputies appointed by consensus (or by the drawing of lots if there is no consensus) from among the parties with parliamentary representation. The President is elected by a simple majority from among the members of each Court.

Electoral Judges - These judges are located in the department capitals, provincial capitals, and in those electoral districts where judicial districts are located. They are elected by the Departmental Electoral Courts. Electoral judges are judiciary civil servants, i.e., they occupy positions in the Justice Administration and also assume responsibility within the electoral process.

According to Electoral Law the duties of the Electoral Judges are: (a) "To decide in an expeditious manner on the cancellation of illegally granted electoral identification," and (b) "To monitor the functioning and organization of Registrars, Juries and Electoral Tables."

Electoral Registrars (notarios) - These registrars are appointed by the Departmental Courts for the registration of citizens domiciled in their jurisdiction. According to the law, their duty is "to annul or cancel registration forms, to provide the Departmental Courts with complete lists of registered citizens so that these may be published, and to conserve books, archives and other documents of the electoral registry."

A very important aspect of the project is the registrar's obligation to provide the Departmental Courts, on a monthly basis, with two legalized copies of new registrations and/or cancellations.

Electoral Juries - These juries are responsible for the operation of voting tables. It is they who receive the citizen's direct and secret vote and are also responsible for counting the votes. There are five members to a jury, and they must be listed in that voting table's book. At least two jury members should be able to read and write. (DH&S believes this figure should be increased to three.)

c) Registration Requirements and Procedures - Registration requirements may be classified as follows:

- 1) Age. From age 21 to age 70. Registration for individuals over 70 or married individuals between the ages of 18 and 21 (regardless of sex) is optional.
- 2) Documents. According to the laws in effect, registration is done upon presentation of either a valid identification card, a Military Service Booklet or a Birth Certificate.
- 3) Appearance of registrant before an Electoral Registrar for enrolling in the appropriate book and for signing or affixing his or her fingerprints to the registration.
- 4) The Registrar must sign the registration and affix his seal. According to the law it is the duty of all citizens resident in the country to enroll in the Electoral Registry except for the mentally deranged, the deaf-mute unable to communicate in writing, individuals sentenced by the Tribunals to serve time in prison, etc.

The Electoral Law establishes registration as an act which must be carried out in person and at the Registrar closest to one's domicile. Otherwise, the registration is null.

In case of change of domicile during the registration period, the citizen must appear before the Registrar assigned to the new domicile. The Registrar will notify the Departmental Court by mailing in the nullified registration corresponding to the Court's jurisdiction. It is understood that through this notification, the Court, after receiving the cancelled registration, will take the necessary measures to ensure that the citizen may no longer vote using the cancelled registration.

d) Procedures for Screening the Electoral Registry.

The Electoral Law states that the Electoral Registry will be maintained on a permanent basis; the responsibility for which will rest with the Electoral Registrar.

In the law there are no provisions for Electoral Registrars; therefore, the National Electoral Court has created a Civil Registry Department responsible for centralizing citizen registration data from Electoral Registrars throughout the Republic so as to constitute a National Electoral Registry. (This should be a provision under Electoral Law and not an item under the Regulations Booklet). Likewise the Registrar is responsible for planning and organizing an Electoral Registry system in compliance with Electoral Law and with modern techniques. The law establishes that the Registry be screened on a consistent basis at the Electoral Registrar's office and not at the National Electoral Court as the screening is the duty of the Registrar. (This is a contradiction between Electoral Law and the Regulations Booklet).

The Electoral Law specifies that the following should be excluded from the registry: deceased citizens, those who are prevented by law from exercising their rights as citizens, people who have changed domiciles and are registered more than once. (Registrars have no means of discovering such cases within their own district and even less able to do so at a national level.)

Under the law, officials at the Civil Registry (Cantons, Counties, etc.) are required to send a list of deceased citizens to the Departmental Courts on a monthly basis. Likewise, the Tribunals are to inform the Courts of any sentencings involving the suspension of citizenship, and the Ministries of the Interior, Migration and Justice are to report on the cancellation of naturalization cards granted to foreigners.

In Bolivia there are many cemeteries which are not monitored by Civil Registries, and for this reason, many deaths go unregistered. Death registration is required by law but compliance is minimal.

The Electoral Law requires the National Electoral Court to send an alphabetical list of citizens with suspended rights to the Departmental Courts on a regular basis. However, there is no clarification as to how the court obtains this information. On the contrary, it is established that the information arrives at the Departmental Courts in a direct fashion.

2. Appointment of Electoral Boards

According to the law, the Electoral Registrar should, within 24 hours after the closing of the registration of voters (April 16), make a list of all registered citizens, in alphabetical order, for every registration book for which he is responsible (index books).

On the following Sunday, the Electoral Judge will summon the citizens for a meeting which will be called "Junta de Jurados." Juntas de Jurados in departmental capitals will consist of the electoral judge serving as president, the Electoral Registrars, and a representative without voting rights for every political party or coalition.

In the provincial capitals, the provincial sections and electoral districts, the "Junta de Jurados" consists of an electoral judge, a Registrar, and a priest (if there is no priest, a rural teacher will occupy this position). Every party can assign a delegate without voting rights. The Registrar acts as the secretary of every "Junta de Jurados".

The "Junta de Jurados" will examine separately each one of the abovementioned lists (index books) with the following purpose:

- a) to eliminate names of persons who are known to be ineligible to be jurors because of their public duties, their status as public authorities, or because they are candidates of recognized parties;
- b) to exclude those persons who are publicly known to have physical disabilities making them unfit for duty; and
- c) to include in the lists any persons whom the Registrars have not included either through error or omission.

After this process of amending the lists is completed, a lottery is used to select five electoral jurors and five alternate jurors for each electoral registry book. The Electoral Judge will then order the publication of the lists of electoral jurors and will order them to meet on the next Sunday to organize the electoral voting places (voting tables). The Electoral Judge will also:

- a. rule on written or verbal requests to be excused from jury duty,
- b. rule on requests concerning the undue inclusion or exclusion of citizens as jurors,
- c. supervise the nomination of a president, two secretaries, and two deputies for every voting place.

3. Function of the Voting Table

The president of the "Junta de Jurados", with the assistance of the Registrar, will determine the location and the placement of the table, and will also arrange the secret enclosure (place where the citizen marks the ballot).

Several voting tables may be located in the same building as long as there is adequate space.

The jurors are responsible for receiving the vote at a voting table; for every registration book there is a corresponding voting table.

In accordance with of The Electoral Law, the voting table must function with the selected members (5 original and 5 alternate) who, before 8 a.m. on the day of the election, will present themselves at the locale designated and must remain until the official closing of the official tally. The president may organize shifts of assistance by the alternates if it becomes necessary to replace an original member for any reason.

In the event that any or all of the jurors are absent by 10 a.m. on voting day, any citizen may request the presence of the judge, notary, or other electoral authority of the jurisdiction to preside over the public act of a lottery among the citizens present and registered at the voting table. In this manner, the five originals and five alternates may be selected. At least two must be able to read and write.

The voting tables must function for at least 8 consecutive hours. The voting table may function for less than 8 hours only if all the citizens registered at that table have voted.

The political parties may authorize a representative (without voting rights) before the voting table who can bring about claims or protests that must be recorded in the record of the electoral act.

The president of the voting table must display the number of the table in order to ensure easy identification.

4. The Voting Process

To initiate the voting process, the president will open the ballot box so that the delegates and citizens present may see that the box is empty. The box will then be locked with a key; the key will be guarded, and the voting will proceed by the citizens registered.

The voter, on presenting himself at the table, must say his name and surname aloud and present to the president his identity document which will be checked by the jurors against the information in the registry book. The citizen is to sign the book (or be fingerprinted if unable to sign). Upon verifying that the voter's identity corresponds to the registration in the book, a ballot and envelope will be presented. The vote is made on the ballot which is then placed in the envelope and finally placed in the ballot box. One of the jurors will cross out the name of the citizen on the voter list and mark a finger of the voter with indelible ink.

5. Vote Tabulation

In this context, vote tabulation refers to the process which takes place at the voting tables and is supervised by the electoral judges -- at the higher bodies (such as the departmental courts and the national court), only total counts are produced, based on the subtotal tallies produced by the voting tables.

After closing of the polls, each table will conduct a public tabulation. There must be a minimum of three judges present. The presence of the representatives of the political parties is not required. Any claims by the parties must be resolved at the table immediately and be duly recorded in the official tally.

The judges will count the envelopes in the box and will verify that their number corresponds to the number of persons who voted. If the number of envelopes is greater than the number of voters, any envelopes not legally marked will be eliminated. If the number of envelopes still exceeds the number of voters, they will be selected randomly. If the number of envelopes is more than a third greater than the number of voters, then all votes from the table will be declared null.

Next, the president will count the ballots and announce aloud the total number of votes cast. Then the judges and the parties' representatives will proceed to analyze the ballots to establish which, if any, should be declared null according to Article 125. If any ballots are declared null, the word "NULO" is marked on the envelope and the ballot and the legal reason for so doing duly noted on the official tally sheet.

The official tally sheet will contain the name of the department, name of the province, number of the electoral seat, table number, number of hours that the table was continuously operating, all objections raised by the political parties' delegates about the procedures on the table, number of voters registered in the book, number of voters that cast a ballot, number of envelopes found in the ballot box, number of valid ballots, number of blank ballots, number of null ballots, number of votes cast for each party or coalition, and signatures and fingerprints of all judges and party delegates involved.

The sealed ballot box containing all the electoral material is then sent to the departmental court by means of the registrar who then signs a detailed receipt. The table also sends a copy of the tally sheet to the departmental court by regular mail. Copies are given to the party delegates.

In Article 128 of The Electoral Law, under letter "e", there is a clause which is unclear, and in fact, can produce a confusing situation: "(The Jury) WILL SEND TO THE DEPARTMENTAL COURTS, BY TELEGRAM, THE RESULTS OF ITS TABLE". The literal interpretation of this clause implies that each table will send nine telegrams, one to each Departmental Court.

With regard to the vote tabulation, it should be noted that the court has presented reforms requesting that upon completion of tabulation, the ballots be publicly destroyed, as long as the voting table has not been the subject of protests.

The tabulation system, as described in the law, occurs at the voting tables. The seven to eight thousand such tallies will be reduced to nine departmental tallies, which are then used to compute the total national count.

It is important to note that the destruction of the original ballots makes impossible any subsequent recount.

6. Sanctions Established by Law and Their Modifications; The Lack of Impartiality

The Electoral Law provides various sanctions in an attempt to ensure the integrity of the electoral process. Persons who do not comply with the law in electoral matters may be subject to fines or imprisonment. In the case of public employees, the loss of their position will also be considered.

In the case of the fine, the National Electoral Court has asked that the electoral law be reformed by multiplying, by 1000, the amount given in the law.

The sanctions imposed by the law are directed at citizens, electoral authorities, public employees, and employees of the courts and banks.

In the case of the registry, Article 169 requires the sanction of a fine from 250 to 1000 Bolivian pesos for citizens who fail to register. In Article 170 there is a 1000 peso fine for citizens who provide false data about their identity to enroll in the electoral registry (e.g., using the birth certificate of another person).

For failure to register, the law also imposes penalties of imprisonment: Article 170 states that the fine may be replaced by imprisonment of one month. Article 177 states that if a citizen attempts to register 2 or more times, he may be imprisoned for 3 months. If a citizen attempts to vote more than once, the fine will be doubled.

With respect to the voting process, a fine of 250 to 1000 pesos is imposed when the secrecy of the vote is violated; when demonstrations or partisan political propaganda is incited or carried out in proximity to the voting tables; or when the armed forces or national police do not observe the norms established in Article 163. (e.g., by concentrating troops near or in polling places on election day, or by calling an unusual period of instruction or maneuvers by citizens who are not in active service).

Sanctions are also imposed on the Registrars, in the form of fines or arrest. In the case of registering a citizen in correctly, as in failing to enter the data in the registry, or by not examining the appropriate documentation, the first offense carries a fine of 1000 pesos, but if the offense is repeated, in addition to the fine, the Registrar may be imprisoned for a period of three months.

If the electoral jury or delegates of the parties refuse to sign the official tally sheet, and electoral report, they are then sanctioned with 30 days of imprisonment.

All the procedures in the event of a violation of the law are aired before the electoral judges or before the National and Departmental Courts.

APPENDIX B: THE BOLIVIAN ELECTORATE AND ELECTORAL STATISTICS

Demographic projections for Bolivia are based on data from the Housing & Population Census of 1974, conducted by the National Statistics Institute.

In referring to the size of the electorate, we have used certain estimates in order to approximate the potential voting population for the next election. This figure is mainly a consequence of what Electoral Law establishes as the minimum voting age. This minimum is 18 years of age if the voter is married, and 21 years of age if the individual is not married. As information on the married population under 21 is lacking, we have presumed that the population aged 20 years or more is the group that will represent the average of the population which will seek to register for the next election.

Employing the above-mentioned simplifications, we estimate that more than 51% of the total projected group for 1984 could seek enrollment in order to vote in the next election. As seen in Table I, that total will be 3,187,019 (3.2 million). It is possible that this figure may be an optimistic projection. Table II refers to the 1979 elections and shows that at that time 1,693,233 people voted. That total represents only 31.9% of the projected population for 1978 (see Table 3). On the other hand, the law does not require that all persons who are entitled to vote actually do so. Persons who do not vote fall into two categories:

- a. People entitled to vote who are registered, but do did not vote
- b. People entitled to vote, but do not register and do not vote

Estimating that of the total group of persons entitled to vote, 5% are in the first categyory and 15% are in the second category, we conclude that approximately 2.7 million people will register for the next election.

Registration figures such as the above, would require some 10,000 voting table, assuming an average of 270 voters per table. If we estimate that the Electoral Courts will appoint 2,000 Electoral Registrars to carry out the registration, this would mean that each Registrar would be responsible for approximately 50 Registry books. In heavily populated areas, this implies that there could be Registrars responsible for 70 to 100 books.

TABLE I
TOTAL POPULATION FOR 1984 BY DEPARTMENTS

<u>Department</u>	<u>Total</u> <u>Population</u>	<u>%</u>	<u>Estimated Population:</u> <u>20 Years of age or</u> <u>Older</u>
Chuquisaca	454,573	7.27	231,696
La Paz	2,029,008	32.45	1,034,188
Cochabamba	954,790	15.27	486,658
Oruro	403,301	6.45	205,563
Potosi	859,749	13.75	438,215
Tarija	261,989	4.19	133,536
Santa Cruz	1,011,690	16.18	515,659
Beni	231,976	3.71	118,238
Pando	<u>45,645</u>	<u>0.73</u>	<u>23,265</u>
	6,252,721	100.00	3,187,019

Calculated using National Statistics Institute Information.

TABLE II

NUMBER OF VOTERS IN 1979 BY DEPARTMENTS

<u>Department</u>	<u># Of Voting Places</u>	<u>% Of Total Voting Places</u>	<u># Voting</u>	<u>Average # Voters Per Voting Place</u>	<u>% of Total Voting</u>
Chuquisaca	437	5.98	100,548	230	5.94
La Paz	2,581	35.30	602,786	233	35.60
Cochabamba	1,132	15.49	270,207	239	15.96
Oruro	514	7.03	122,405	238	7.23
Potosi	980	13.40	227,518	232	13.44
Santa Cruz	1,076	14.72	252,035	234	14.88
Tarija	330	4.51	70,223	213	4.14
Beni	193	2.64	39,942	206	2.36
Pando	<u>67</u>	<u>.87</u>	<u>7,569</u>	<u>113</u>	<u>0.44</u>
	7,310		1,693,233	232	100.00

Calculations based on computations of the National Electoral Court cited by Marcelo Cespedes in the book, The Bolivian People: Are We Ready For Democracy?

TABLE III

ESTIMATED POPULATION FOR 1978 AND
RELATION TO ACTUAL NUMBER OF VOTERS

<u>Department</u>	<u>Estimated Population</u>	<u># Voting</u>	<u>% of Total Projected Population</u>
Chuquisaca	407,334	100,548	24.7
La Paz	1,697,758	602,786	35.5
Cochabamba	823,155	270,207	32.8
Oruro	351,644	122,405	34.8
Potosi	756,326	227,518	30.1
Tarija	218,518	70,223	32.1
Santa Cruz	819,972	252,035	30.7
Beni	191,468	39,942	20.9
Pando	<u>37,657</u>	<u>7,569</u>	<u>20.1</u>
Total	5,303,832	1,693,233	31.9