

**PHILIPPINES-AUSTRALIA LAND  
ADMINISTRATION AND MANAGEMENT  
PROJECT**

**MANUAL ON  
LAND RECORDS MANAGEMENT**

**Version 5**

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| TITLE:                | Manual on Land Records Management   |
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## ABBREVIATIONS AND ACRONYMS

|        |  |
|--------|--|
| A&D    | Alienable and Disposable (land)                            |
| AO     | Administrative Order                                       |
| ARC    | Agrarian Reform Community                                  |
| AusAID | Australian Agency for International Development            |
| BBM    | Barangay Boundary Monument                                 |
| BIR    | Bureau of Internal Revenue (DOF)                           |
| BLGF   | Bureau of Local Government Finance (DOF)                   |
| BLM    | Bureau of Lands Monument                                   |
| BSWM   | Bureau of Soils and Water Management (DA)                  |
| BOO    | Build-Own-Operate  |
| CARL   | Comprehensive Land Reform Law                              |
| CARP   | Comprehensive Land Reform Program                          |
| CENRO  | Community Environment and Natural Resources Office/Officer |
| CGSD   | Coastal Geodetic Survey Division                           |
| CIM    | Cadastral Index Mapping                                    |
| CLOA   | Certificate of Land Ownership Award                        |
| CLR    | Court of Land Registration                                 |
| COSLAP | Commission on the Settlement of Land Disputes (DOJ)        |
| CRS    | Community Relations and Services                           |
| CT     | Certificate of Title                                       |
| DA     | Department of Agriculture                                  |
| DAR    | Department of Agrarian Reform                              |
| DBM    | Department of Budget Management                            |
| DENR   | Department of Environment and Natural Resources            |
| DILG   | Department of Interior and Local Government                |
| DOF    | Department of Finance                                      |
| DOJ    | Department of Justice                                      |
| EMB    | Environmental Management Bureau (DENR)                     |
| EO     | Executive Order  |
| ERDB   | Ecosystem and Research Development Bureau (DENR)           |
| FMB    | Forest Management Bureau (DENR)                            |
| GIS    | Geographic Information System                              |
| GOP    | Government of the Philippines                              |
| GPS    | Global Positioning System                                  |
| ha     | Hectare = 10,000 m <sup>2</sup>                            |
| HLURB  | Housing and Land Use Regulatory Board (HUDCC)              |
| HRD    | Human resources development                                |
| HUDCC  | Housing and Urban Development Coordinating Council         |
| LAM    | Land Administration and Management                         |
| LAMP   | Land Administration and Management Project                 |
| LGU    | Local Government Unit                                      |
| LIL    | Learning and Innovation Loan (World Bank)                  |
| LIS    | Land Information System                                    |
| LMB    | Land Management Bureau                                     |
| LMO    | Land Management Officer                                    |
| LMS    | Land Management Services                                   |
| LRA    | Land Registration Authority                                |
| M&E    | Monitoring and evaluation                                  |

|         |   |
|---------|---|
| MARO    | Municipal Agrarian Reform Office/Office                     |
| MBM     | Municipal Boundary Monument                                 |
| MGB     | Mines and Geoscience Bureau (DENR)                          |
| NAMRIA  | National Mapping and Resource Information Agency            |
| NEDA    | National Economic Development Agency                        |
| NCR     | National Capital Region                                     |
| NHA     | National Housing Authority (HUDCC)                          |
| NGO     | Non-government organisation                                 |
| NRMDP   | National Resources Management and Development Project       |
| OCT     | Original Certificate of Title                               |
| OSS     | One-Stop-Shop   |
| PARO    | Provincial Agrarian Reform Office/Office                    |
| PAWB    | Protected Areas and Wildlife Bureau (DENR)                  |
| PEA     | Public Estate Authority                                     |
| PENRO   | Provincial Environment and Natural Resources Office/Officer |
| PIO     | Project Implementation Office                               |
| PIP     | Project Implementation Plan                                 |
| PMO     | Project Management Office                                   |
| PPCS-TM | Philippines Plane Coordinate System/Transverse Mercator     |
| PPR     | Project Preparation Report                                  |
| PRS     | Philippines Reference System                                |
| PTM     | Philippines Transverse Mercator (projection)                |
| RED     | Regional Executive Officer (of DENR)                        |
| ROD     | Registry of Deeds   |
| SAT     | Systematic Adjudication Team                                |
| SNS     | Survey Notification Sheets                                  |
| TA      | Technical Assistance  |
| TCT     | Transfer Certificate of Title                               |
| TOR     | Terms of Reference  |
| XINDEX  | Cross-index   |

# **1. INTRODUCTION – LAM PROJECT AND PROTOTYPE 2**

## **1.1. Use and Update of the Manual**

The manual is intended for use by staff working in the PIO2 office in Quezon City, particularly the staff working on the validation of land records and the Customer Relations and Services (CRS) activities. The manual is intended to support staff training and to provide procedural guidance to staff during project implementation.

A limited number of controlled versions of the manual will be available. From time to time, it would be necessary to make modifications or additions to the content of this manual. Such amendments to the manual must be approved by the Prototype Manager for PIO2, who will be responsible for circulating amended documentation to be forwarded to all registered holders of the manual. The revision of the manual or of any section will be duly identified in the manual in the Document Verification/Document Approval form set out at the beginning of the manual.

## **1.2. Objectives of Land Administration and Management Project (LAM Project)**

The objectives of the Project are to test alternative approaches to accelerated programs designed to improve the protection of rights to land, eliminate fake titles, introduce an equitable system of land valuation, formulate and approve policy and regulatory changes, and formulate the institutional arrangements needed to support implementation of the subsequent phase of the Program.

The policy making body for the LAM Project is an Inter-Agency Coordinating Committee (IACC) created by virtue of Executive Order No. 129 dated 24 July 1999. The IACC is chaired by DENR, the Vice chair is DOJ and the members are DOF, DBM, DAR, DA, DILG, PEA, HUDCC, NEDA, League of Municipalities, League of Cities and League of Provinces. Representatives to the IACC are at least at the Undersecretary level.

There is also a Technical Working Group to support the IACC. Members are the same as for the IACC plus the following: from the DENR – LMB, FMB, MGB, PAWB, EMB, ERDB and NAMRIA; from the DOJ – LRA, COSLAP; from the DOF – BLGF, BIR; from the DA – BSWM; from the HUDCC – HLURB, NHA.

## **1.3. Objective and Scope of Prototype 2 on Land Records Management**

The objective of this prototype is to produce proven new procedures and demonstrate successful cooperation between land related agencies for the improvement in quality and completeness of land title records. This prototype is not concerned with titling new lots but is concerned with increasing confidence in the existing land registration system.

There are four main types of production activities:

- (i) Cadastral Index Mapping (CIM) and making of cross indexes (XINDEX) to control duplicate land titles and for other administrative purposes;
- (ii) Validating existing titles held in the Register of Deeds (ROD);
- (iii) Reconstitution of current certificates of title which are missing from the Land Register and facilitating the process of providing land owners with new titles as replacement to their missing titles;

- (iv) Integration of the new records into the ROD, streamlining of land registry operations to maintain quality of land register documents and better exchange of land information between related agencies of government.

In addition, there is a strategic process of developing a national plan for improved management of land ownership related records. This will be based on the lessons gained from this Prototype, and also from the rural activities in Leyte in the Prototype I, and will also link with the implementation of the BOO Project.

#### 1.4. Outline of Activities in Prototype 2

The systematic adjudication activities proposed for Prototype 2 are set out in the LAM Project PPR and the LAM Project PIP. Key activities for prototype 2 are summarised below:

- (i) Compilation of a Cadastral Index Map, including set up of GPS and the use of Orthophotos.
- (ii) Development of a cross-index to the records of the different agencies involved.
- (iii) Set up of a One Stop Shop
- (iv) Validation of existing records, including field verification
- (v) Customer Relations and Services
- (vi) Monitoring and Evaluation of all components of the project

The Prototype II will be implemented in 5 barangays in District 2 of Quezon City.

| Barangay               | Land Area (ha) | Population     |
|------------------------|----------------|----------------|
| <b>Bagong Silangan</b> | 507            | 35,385         |
| <b>Batasan Hills</b>   | 576            | 86,037         |
| <b>Commonwealth</b>    | 471            | 129,354        |
| <b>Holy Spirit</b>     | 329            | 87,615         |
| <b>Payatas</b>         | 494            | 87,253         |
| <b>TOTAL</b>           | <b>2377</b>    | <b>425,644</b> |

The Targets for the Prototype are shown below:

| Targets For Each Activity (Lots) | Project Years |        |       | TOTAL (Lots) |
|----------------------------------|---------------|--------|-------|--------------|
|                                  | 2001          | 2002   | 2003  |              |
| Cadastral Index Mapping          | 5,000         | 35,000 | 0     | 40,000       |
| Systematic Field Validation      | 1,000         | 22,800 | 6,200 | 30,000       |

## **1.5. Organisation and Management of Prototype 2**

The focus of this Prototype is the ROD and the head of the PIO is a senior manager from LRA. Key participating agencies are the DENR and LGU. The PMO will provide support services such as procurement and financial management. A Project Implementation Office (PIO 2) has been established to manage and coordinate the activities of prototype 2. The structure for the Prototype 2 PIO is shown in Annex A. The financial operations for the prototypes and the PIO are set out in the LAM Project Financial Management Manual.

The framework for the CRS activity is set out in Annex J and documented in the CRS Manual (yet to be prepared).

The PIO will also be responsible for monitoring and evaluation, under the LAM Project Framework for Monitoring and Evaluation. The PIO 1 Monitoring and Evaluation Plan is set out in Annex E. Example Validation reporting forms are set out in Annex F.

The Training Plan for Prototype 2 is given at Annex G.

## **1.6. Organisation and Management of the OSS for Prototype 2**

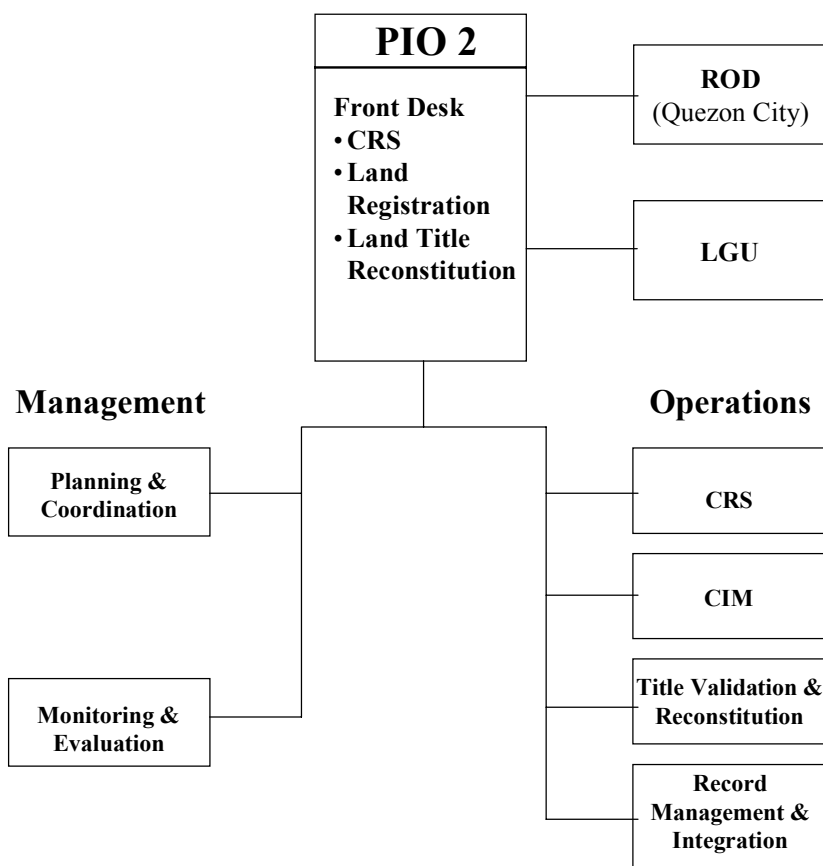
The Project Implementation Office (PIO) includes an office known as the “One-Stop-Shop” (OSS). The OSS will be located in the new Quezon City ROD that is being built in the LRA compound. In addition to providing a line management function, the OSS itself is a primary part of the institutional objectives of the Project. The OSS will be established through the co-location of staff from the relevant agencies – DENR, ROD and LGU. The procedures for the OSS are set out in the PIO2 OSS Manual (to be prepared) and the responsibilities for units in the OSS (to be prepared) are set out in Annex H.

The OSS will provide a structure that will enable the relevant land ownership certification, land records validation and registration, and documentation and recording activities to be developed into an efficient process. For the Prototype area, co-management formalised through administrative agreements will be used to coordinate the administration and management of all land-related activities.

During the Project, statutory officers will retain their current line of reporting as regards their independent statutory responsibilities. This will ensure that legal integrity is retained as regards the registration and title activities done in the Prototype. At the middle stage of LAM Project, the directions for long-term institutional change will be developed as a basis for implementation in the subsequent phase of the Program.

The proposed structure for the OSS is shown in Figure 1.

Figure 1 - Concept of One-Stop-Shop



The responsibilities of each unit are shown in Annex H (not yet prepared).

### 1.7. Organisation of Production Staff

(this section will be developed in later versions of the manual)

Cadastral Index Mapping:

| No | Position                 | Number    | Remarks                     |
|----|--------------------------|-----------|-----------------------------|
| 1  | Geodetic Engineer        | 1         | LRA / LGU                   |
| 2  | Supervising Cartographer | 1         | LRA                         |
| 3  | Cartographers            | 5         | LRA (2), DENR (1), Hire (2) |
| 4  | AutoCad operator         | 2         | Hire                        |
| 5  | Researcher               | 4         | Hire                        |
| 6  | AutoCad programmer       | 1         | Hire                        |
|    | <b>Total</b>             | <b>14</b> |                             |

## Validation and Reconstitution

| No | Position                 | Number    | Remarks                        |
|----|--------------------------|-----------|--------------------------------|
| 1  | Supervisor               | 1         | PIO                            |
| 2  | Land Investigator        | 1         | PIO                            |
| 3  | Examiners                | 2         | LRA                            |
| 4  | Clerk                    | 1         | LRA                            |
| 5  | Barangay Representatives | 5         | Nominated by the Brgy. Council |
| 6  | CRS                      | 1         | PIO                            |
|    | <b>Total</b>             | <b>11</b> |                                |

## Registration

| No | Position       | Number   | Remarks                     |
|----|----------------|----------|-----------------------------|
| 1  | DRD            | 1        | LRA / LGU                   |
| 2  | Examiner       | 1        | LRA                         |
| 3  | Record Officer | 1        | LRA (2), DENR (1), Hire (2) |
| 4  | Clerks         | 2        | ROD (1), Hire (1)           |
|    | <b>Total</b>   | <b>5</b> |                             |

The job descriptions for the positions in the field validation team (and other staff?) are shown in Annex I (not yet prepared).

The field validation teams will report two-weekly and monthly progress to the PIO2, and example validation reporting forms are set out in Annex F.

### 1.8. Existing Legal Framework

There is an abundance of laws governing the administration of land in the Philippines. The laws are administered by different agencies. Many of the laws have been introduced over a long period of time. The most important pieces of legislation in relation to Prototype 2 are:

- (i) **The Land Registration Act of 1902, Act No 496** introduced the Torrens System of Land Registration and provided for the creation of the Court of Land Registration (CLR), the offices of the Register of Deeds (ROD), and a process whereby real estate ownership may be judicially confirmed and recorded in the archives of the Government.
- (ii) **Presidential Decree No 1529 of 1978**, aimed to update the Land Registration Act and to codify the various laws relative to the registration of property. The decree was designed to adopt safeguards to prevent anomalous titling and to streamline and simplify registration proceedings and issuance of certificates of title.

- (iii) **The Cadastral Act of 1913, Act 2259**, established a compulsory system for the extensive survey and judicial registration of private land on a whole of municipality basis.
- (iv) **Republic Act No 6732 of 1988**, established an administrative process for the mass reconstitution of lost or destroyed titles.

A comprehensive review of the land law can be found in the PPR Annex 13.

## 2. GUIDING PRINCIPLES AND APPROACH

### 2.1. Principles of Systematic Land Adjudication

Land record rejuvenation in LAMP is built on four basic principles designed to increase the quality of, and confidence in the land records and make them readily available to both the public and other agencies:

- (i) First, land record rejuvenation will:
  - a) cover all lots in the area (usually a whole barangay);
  - b) ensure that all existing records from all agencies will be consolidated;
  - c) reconstitute damaged or missing records and titles.
- (ii) Second, identify conflicts and anomalies for further investigation.
- (iii) Third, the technology and administrative arrangements used to record information on property should be simple, robust, and upgradable.
- (iv) Fourth, the land records management system will be efficient, responsive to the community, with reasonable fees and will thus provide incentives for the registration of subsequent transactions.

### 2.2. Guidelines for Systematic Land Adjudication

Spatial Validation using the CIM. The CIM is a map series that covers the full land surface in a Cadastral Jurisdiction (i.e. Municipality or City). The map edges join so that there are no gaps. Each and every lot for which there is a Certificate of Title current must be shown on the CIM and with a unique number. A cross index record (Index book or computer file) keeps an up to date reference of every lot on the CIM to the Title number.

Up to Date. The land registration system provides on-going day to day service to the community, government and business sectors and maintains the records up to date. This requires confidence in the record keeping, reasonable fee levels, and prompt service in registering land transactions. The CIM provides a means to ensure that there are no duplicate titles.

Maintaining the Spatial Records. Any future lot mutations (i.e. sub-division or consolidation) will be recorded on the CIM before the new land titles are registered. When there is a new title issued for a lot, the Lot Cross Index is updated<sup>1</sup>, but the CIM is only updated if the lot boundaries are changed through mutation.

Whole of Barangay Validation; all of the current land title records held in the ROD for a Barangay will be validated and indexed to the CIM. In this way it will not be possible for future titles to overlap or duplicates of the existing titles to exist. For example, any record in the Lot Cross Index that shows two or more title numbers indicates an error or multiple land titles and must be resolved. This is an essential step before confidence can be fully restored to the Land Registration System. It is also a necessary step before full computerisation of the Register can be achieved (see BOO Project).

Participation; all land owners whose land titles have not yet been reconstituted are to be fully informed and encouraged to be involved.

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<sup>1</sup> The land registration system of the Philippines requires new titles to be issued upon transfer. This is not the normal practice in most countries.

Openness: public notices are to be placed in convenient locations and the press and media for the cases of reconstitution of certificates of title all lots. The people have the right to question or raise a dispute.

Affordable Fee: the validation and reconstitution of the land title is mostly to the benefit of the administration as the land owner already has ownership. Therefore, NO payment is required from the land owner unless the owner's copy of the land title is missing.

### **2.3. Approach**

Laws. Land records validation and reconstitution in Quezon City has been underway for several years under the management of LRA and the Project will build on this experience. The new approach, to speed up and complete the records validation in the One Stop Shop, operates under the existing Land laws.

Use of Technology. The CIMs will initially be produced by manual methods but the project will test the usefulness of digitising the CIM. The Lot Index and Lot Cross Index will be generated using a simple PC data base. The BOO Project will be the main vehicle for computerizing (and modernising) the ROD. LAMP will provide the validated records in the 5 Barangay of Quezon City.

Use of Orthophotos. Given the fact that surveys in Quezon City have been isolated and unlike other places in the Philippines there has never been a systematic Cadastral survey, it is expected that it will be difficult to produce an accurate and complete CIM. To avoid extensive re-surveys the Orthophoto Map will be used to assist the cartographers to locate Lots onto the CIM. Nevertheless, it is expected that some field visits will be required during the compiling of the CIM.

Validation By Using the CIM. The CIM will be directly used to validate existing "live" or current certificates of title in the ROD. This process may find multiple titles for the one Lot. The searching of title may be assisted by the records of the LGU Tax Assessors Office, in addition to the records of the LMS (NCA) and LRA.

Reconstitution of Land Title. In cases of missing or duplicate titles, the project will send staff to the field to investigate. This process will be accompanied by extensive CRS to the people in the Barangay, to the wider community through the media and very importantly, to the Barangay Council. Through this program it is planned that all Titles can be reconstituted.

Record Management. The end of the validation and reconstitution phase is the start of improved operations in the ROD and consequently, better service to the community. The indexes and CIM will be integrated into the day to day operations of the ROD so that reliable land registration functions may continue into the future.

### **2.4. Schematic of the Process of Validation of Land Records**

An overview of the process for the validation of land records for prototype 2 is set out in Annex B (copy of Figure 1 of Annex 6 in the PPR). The draft workflows for field validation are set out in Annex D.

### 3. OVERVIEW OF THE LAND RECORDS MANAGEMENT PROCEDURES

There are seven main production stages:

- (i) Preparation Activities, involving project management, CRS and community development, and preparation for the field validation.
- (ii) Inventory of Existing Records and making of cross-indexes (XINDEX<sup>2</sup>) to record all known lots from existing government records. This involves the research of existing records in the LRA, LMB, LMS and LGU and the collation of copies of records.
- (iii) Cadastral Index Mapping (CIM). The CIM team will draw the lots onto a sheet of transparent drafting film. The CIM will be produced at a scale of 1/1,000, tracing detail from approved plans where they are available.

The only complete mapping available is the LGU tax mapping. This information will be used to search for approved plans in LMS, LMB and LRA. Detail from the LGU tax maps will be used to complete the initial CIMs.

Initially the CIMs will be controlled by existing control information, supplemented with minimal additional control if orthophotos are not available. It is planned that new orthophotomaps be produced and these maps will provide the spatial framework for the CIMs. Since the scale of the map is 1/1,000 an error tolerance of 50 cm is acceptable for the purpose of the CIM.

The field validation process will lead to corrections to detail on the CIMs.

- (iv) Office validation of Titles Duplicate, overlapping and missing titles will be identified by validating the CIM/XINDEX information possibly against the records generated by the LRA BOO project and/or records held in the ROD. A list of titles requiring validation in the field will be prepared.
- (v) Reconstitution and Field Validation of Titles to identify missing, overlapping or duplicate titles. For each case of a reconstituted title it will be checked in the ROD and then recorded on the CIM. *The successful completion of this activity will be most important in establishing renewed confidence in the Land Register.*

The process control measures are not complex. The reconstitution of titles that have been lost from the ROD through fire in 1988 and other causes will be based on the identification of lots shown in the CIM which are not yet shown as having an office copy of the title at the ROD. This will be based on sighting the owner's copy of the title or other such information that supports the claim of the existence of a land title in the past. An extensive CRS information programme will explain to the people the intention and processes.

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<sup>2</sup> The Cross Index is a table showing, (i) the unique lot number as shown on the CIM and, (ii) the corresponding certificate of title number. If there are duplicates there will be more than one Certificate of Title number which must be resolved.

It is not intended to issue land titles over lots that have never been subject to a land title<sup>3</sup>. Equally important, land that is legally under the ownership of the Government will remain as such.

To avoid misunderstanding, a comprehensive CRS campaign will be launched to officials, Barangay Council members, NGO's, social organisations and the communities concerned. Any cases of uncertainty due to missing owner's copy of titles or cases of dispute will be referred to the Courts. It will be the responsibility of the Prototype to implement any orders of the Courts.

- (vi) Integration of the Records into the ROD is a vital step because the control records must be kept continuously up to date. Indeed, as the validation processes are taking place any dealings in the target Barangays will have to be notified to the CIM and validation teams. The standard procedures of the ROD will be changed to include updating the control records before registration is effected. This will identify any possible issuing of multiple or overlapping parcels before registration occurs. Training of ROD staff will be essential.

The BOO project will benefit from the "cleansing" of the land records in the Register of Deeds. A possible additional activity is the placing of some 30 tertiary survey control marks at 1 km spacing in the 5 barangays and the subsequent requirement for surveyors to connect to these marks for all future Cadastral surveys that are submitted for approval. By this means it will make it certain that the CIM will be kept up to date accurately. The requirements for this activity will be developed in the coming months.

The program of integration of the new control records into the ROD will have to be accompanied by technical assistance to the ROD on revising operational procedures and giving extensive staff training, as well as follow up on the training and monitoring.

- (vii) Development of a Land Records Management Strategy for safe keeping of the Register records, accuracy and currency of the records and for efficient services will be achieved under the LAMP with the experience from this Prototype. Lessons will be captured for extending to the whole country. There will be close consultation within the progress of the BOO project. The development of the strategy will be undertaken during the LAM Project, with support from AusAID-funded technical assistance.

### 3.1. Preparation Activities

| No         | Activities and tasks                        | Output   | Responsibility   | Specification of Procedure                                 |
|------------|---|--|--|--|
| <b>1.0</b> | <b>Management</b>                           |  |  |  |
| 1.1        | Work Planning & Budgeting & Staff selection | Work plan of tasks & targets, staff nominated, procurement completed | PIO Planning & Coordination Unit Head and PIO Support Services Unit Head | LAM Project Financial Management Manual<br>LAM Project PIP |
| 1.2        | M&E Framework                               | Framework developed  | PIO M&E Unit Head  | LAM Project Framework for M&E<br>PIO 2 M&E Plan – Annex E  |
| 1.3        | Training of staff                           | Course complete  | PIO  | Training Plan – Annex G                                    |

<sup>3</sup> In the 5 barangays of the Prototype it is expected that all private land is already under certificate of title.

| No         | Activities and tasks  | Output   | Responsibility                         | Specification of Procedure   |
|------------|---|--|--|--|
| <b>2.0</b> | <b>CRS and Community Development</b>  |  |  |  |
| 2.1        | Engage NGO services & LGU's assistance  | Contracts complete   | PBAC/PIO                               | LAM Project Financial Management Manual<br>Procurement Guidelines<br>CRS Manual - Standard TOR |
| 2.2        | Assessment of the social characteristics/profile of the Barangay, analysis and review of CRS plan.  | Assessment report provided before commencing Systematic Adjudication.<br>Modified CRS plan based on the actual nature of the Barangay community.<br>CRS activity plan confirmed. | PIO Planning & Coordination Unit Head  | Social Assessment Phase 1 Report<br>CRS Manual<br>CRS Framework Plan – Annex J                 |
| 2.3        | Information for officials of LGU & Barangay Captain, from the target area   | CRS briefing given to relevant officials.  | PIO Planning & Coordination Unit Head  | CRS Manual   |
| 2.4        | Public notice in media and posted in Barangay & Municipality.   | Program of announcements complete (for Judicial, petition filed).  | PIO Planning & Coordination Unit Head  |  |
| <b>3.0</b> | <b>Base Data</b>  |  |  |  |
| 3.1        | Confirm political boundaries are clearly shown on maps.   | Political Boundary Map & Monument Description Book.  | LMS Survey Division /Survey Contractor | AO 98-12. Sec 755-767  |
| 3.2        | Confirm geodetic survey control is sufficiently dense, determine any additional control requirements & develop plan for establishing control. | Municipal Control Map & Provincial Base Map<br>Plan for additional geodetic survey control.  | LMS Survey Division/Survey Contractor  | AO 98-12. Sec 47-69, 110-113   |

### 3.2. Inventory of Existing Records

| No         | Activities  | Output            | Responsibility | Specification of Procedure   |
|------------|---|-------------------|----------------|------------------------------|
| <b>1.0</b> | <b>Inventory of Records</b>   |                   |                |                              |
| 1.1        | Obtain copies of City Property Identification maps and associated data records.     | Copies of records | PIO CIM team   | Inventory form (see Annex K) |
| 1.2        | Format textual data in Excel as basis for XINDEX.                                   |                   |                | Search Procedures            |
| 1.3        | Search for copies of Approved Plans in LMS and LRA and validate against LGU records |                   |                |                              |

| No  | Activities   | Output        | Responsibility | Specification of Procedure |
|-----|--|---------------|----------------|----------------------------|
| 1.4 | Get copies of titles and validate against LGU records. | Updated Index |                |                            |

### 3.3. Cadastral Index Mapping (CIM) Activities

| No         | Activities  | Output        | Responsibility | Specification of Procedure  |
|------------|---|---------------|----------------|---|
| <b>1.0</b> | <b>CIM and Indexes Before Field Validation</b>  |               |                |   |
| 1.1        | Make Cadastral Index Map of existing lots with Certificates of Title. Include surveyed lots in draft form | CIM           | PIO CIM team   | See this manual section 5 AO 98-12. Sec 351 -356 specify scales, map numbering etc. |
| 1.2        | Update XINDEX.  | Updated Index |                | See Map Compilation Procedures  |

### 3.4. Office Validation of Titles

| No         | Activities   | Output  | Responsibility | Specification of Procedure       |
|------------|--|---|----------------|----------------------------------|
| <b>1.0</b> | <b>Office Validation of Titles</b>   |   |                |                                  |
| 1.1        | Validate CIM/XINDEX against BOO/ROD information.                                     | Office Validated Index  | PIO CIM team   | See Office Validation Procedures |
| 1.2        | Identify titles that need to be validated in the field.                              | Reports of Titles requiring reconstitution<br>Reports of Titles requiring field validation (missing, duplicate, overlapping). |                |                                  |
| 1.3        | Update and maintain CIMXINDEX until the CIM is ready for integration in the ROD/OSS. | Updated CIM   |                |                                  |

### 3.5. Reconstitution and Field Validation of Titles

| No  | Activities   | Output  | Responsibility                       | Specification of Procedure |
|-----|--|---|--------------------------------------|----------------------------|
| 1.0 | <b>Field Investigation of Duplicate/Missing Titles</b>                           |   |                                      |                            |
| 1.1 | Field check of reports of missing and duplicate titles                           | Reports of land with duplicate or contested title | Field Investigation Team<br>CIM team |                            |
| 1.2 | Update CIM and Index   | Updated CIM                                       | CIM team                             |                            |
| 1.3 | Identify land requiring title reconstitution                                     | Reports of land requiring reconstitution          | Field Investigation Team             |                            |
| 1.3 | Maintain title CIM/XINDEX until the CIM is ready for integration in the ROD/OSS. | CIM office copy in operational use.               | CIM team                             |                            |

| No  | Activities   | Output   | Responsibility                | Specification of Procedure |
|-----|--|--|-------------------------------|----------------------------|
| 1.0 | <b>Process to Create New Titles after Field Investigation</b>  |  | Investigation Team<br>ROD/OSS |                            |
|     | Search ROD for title, if missing prepare reconstituted title, update CIM/index, register title and send copy to owner. |  |                               |                            |
|     | If title found in ROD is the same as owners, update CIM/index, return owners copy                                      | Reconstituted titles   |                               |                            |
|     | If title found in ROD is not the same as owners copy, generate report for court hearing.                               | Reports for court hearings of questionable or contested titles |                               |                            |
| 1.3 | Update and maintain CIM/XINDEX until the CIM is ready for integration in the ROD/OSS.                                  | Updated CIM/Index  | CIM team                      |                            |

| No  | Activities                                   | Output                               | Responsibility | Specification of Procedure |
|-----|--|--------------------------------------|----------------|----------------------------|
| 1.0 | <b>Cancellation of Duplicate/fake Titles</b> | <i>This section to be completed.</i> |                |                            |

| No  | Activities  | Output | Responsibility | Specification of Procedure |
|-----|---|--------|----------------|----------------------------|
| 1.3 | Update and maintain CIM/XINDEX until the CIM is ready for integration in the ROD. |        |                |                            |

| No  | Activities  | Output                               | Responsibility | Specification of Procedure |
|-----|---|--------------------------------------|----------------|----------------------------|
| 1.0 | <b>Correction of Title Records</b>  | <i>This section to be completed.</i> |                |                            |
| 1.3 | Update and maintain CIM/XINDEX until the CIM is ready for integration in the ROD. |                                      |                |                            |

### 3.6. Integration of Records into the ROD

| No  | Activities  | Output   | Responsibility | Specification of Procedure |
|-----|---|--|----------------|----------------------------|
| 1.0 | <b>Integration of CIM into ROD/OSS</b>  |  |                |                            |
| 1.1 | On receiving the outcome order of the court , draw lot polygons permanently onto CIM.                                       | Updated CIM  | ROD/OSS        | See this manual section 5  |
| 1.2 | Update Lot Index and Cross Index for subject lots.  | Updated indices.   | ROD/OSS        | See this manual section 5  |
| 1.3 | Keep original CIM in ROD/OSS for day to day updating and use  | ROD/OSS use of CIM as office copy operational                              | ROD/OSS        | See this manual section 5  |
| 1.4 | Make copies of CIM for off-site safe keeping  | CIM security established   | ROD/OSS        | See this manual section 5  |
| 1.5 | New instructions and training on mutation of lots (i.e. sub-division and consolidation) and the procedure to update the CIM | Instruction manual complete and in office use.<br>Training Course complete | ROD/OSS        | See this manual section 5  |

## 4. INVENTORY OF EXISTING RECORDS

### 4.1. Sources of Information

The land records rejuvenation in 5 Barangays of Quezon City requires the land information from a number of government offices. The fact that the ROD office records were all destroyed by fire in 1988 means that there are fewer documents than would normally be the case.

The land records needed to construct the **CIM** and to **validate certificate of titles** are:

| No | Agency Holding Records for 5 Barangays of Quezon City      | Primary Record  | Secondary Record / Remarks   |
|----|--|---|--|
| 1  | National Capital Regional Office of DENR (NCR - LMS)       | Projection Maps <sup>4</sup> at scale 1:1,000 and updated for surveys approved at LMS (est. to be 2/3 of all lot sub-divisions in QC).  | Cadastral survey maps (note, that unlike most provinces there were no systematic surveys performed in Quezon City so all of the lot surveys were made as individual lot surveys).<br>Cadastral map shows the Certificate of Title (CoT) number of the "mother" lot, in case of sub-division <sup>5</sup> .<br>No tertiary survey control points in QC. |
| 2  | Land Registration Authority of Department of Justice (LRA) | Index Maps, very old and some updating done. Those titles reconstituted since 1988 have their corresponding lot shown on the index map with an annotated title number.<br>Digital index maps (Autocad format)<br>No Owners Index  | Cadastral survey maps  |
| 3  | Register of Deeds of Quezon City (ROD)                     | Land Titles (stored by running number, not by Barangay <sup>6</sup> ) and linked title numbers forward and back (in cases of sub-division and transfer). Approx. 166,000 titles including 46,000 provisional titles, of an estimate of 400,000 lots in Quezon City. Provisional land titles are of incomplete reconstituted land titles where a land transaction was requested. | The fact that:<br>Titles are not stored by Barangay nor district,<br>There is no title index to Barangay, and<br>On each transfer a new title is issued,<br>Means that searching titles is going to be more difficult and take more time than otherwise it may have been.  |

4 Based on the land use maps produced about year 1978.

5 This provides a means to find the current CoT by searching the Register because back and fore references are shown on all cancelled titles.

6 Therefore, the procedure needs to recognize that it would take a lot of time to search the register and sort into Barangays because every packet of titles would need to be opened and every title read (200 titles per packet).

## 4.2. Inventory Procedure

In the absence of approved cadastral surveys in Quezon City (the projection maps presently being used by DENR-NCR are land use maps) the primary source of information will be the tax map of the Assessor's Office. The LGU assessment forms have been entered into a database which contains much of the information required for validation. The following procedures will be observed:

Copies of the Tax Maps of the subject barangays will first be secured from the Assessor's Office together with the computerized assessment forms (as a file copy as well as hard copy). An initial list of survey plans and titles will be extracted from the database and used as the basis for the records to be searched from the LRA, NCR and ROD.

The database will be loaded into the inventory/validation form (XINDEX) which has been designed (see Annex K). Existing records (titles, plans, tax declarations) will be validated using the XINDEX form:

- (i) Using the tax map (by section) each PIN entry on the form shall be checked with the corresponding survey plan and title. Each entry that has complete and correct information shall be noted in the remarks column, with certification by the appropriate officer..
- (ii) When the three items of information do not agree, the difference shall be noted on the remarks column and further verification/ checking shall be made within the available records for possible error in the entry.
- (iii) If the discrepancy cannot be resolved from the available records, the problem may be categorized as follows:
  - a) the existence of two or more titles covering the same parcel
  - b) overlapping survey plans
  - c) Not updated records, tax info, title
  - d) Gaps between titles/parcels
  - e) Other

The Tax Assessor's Office file contains the following record;

Tax Assessors PSPIN code of City/ Municipality and Barangay

Tax Map Section Number code

Tax Map parcel number.

LRA survey plans

DENR survey plans

ROD Certificate of Title

Owners name

Lot Area

Tax Declaration Number

Registration date on the TCT/ date of issue of the TCT

(Other fields which may be used)

Check the Xindex Excell data for correct data entry against the information recorded on the Tax Map. Record errors on the Xindex form for later updating or further checks.

#### **4.3. Search DENR and LRA Records**

The search should be on a barangay basis and locate and copy the plans indicated on the Xindex form as follows;

- Subdivision survey plans with Technical Descriptions (bearing and distance annotation) either as a textual table or on annotated plan drawing.
- Subdivision survey plans without Technical Description which may have individual lot description either as textual table or annotated plan drawing.
- Consolidated plans of complex subdivision.
- Old survey plans from Land Management Bureau (LMB) which are not available from DENR.
- Plans of original surveys of old areas which may have no other survey (eg Payatas and Piedad estates).

#### **4.4. Search ROD Records**

The search of the ROD for the Title (TCT) can be accessed as follows;

- Cadastral tax maps show the TCT number of the original lot before subdivision. This provides a means to find the current TCTs as forward and reverse transaction references are show on all cancelled titles.
- TCTs are stored in the ROD by running number (not by barangay or district). Following every transfer a new title is issued but are linked by forward and reverse reference.
- Provisional Titles over land with incomplete reconstituted titles.
- TCT shows survey plan number, lot number, owner, area and textual bearing and distance description.

## 5. CADASTRAL INDEX MAPPING IN PROTOTYPE 2

### 5.1. Introduction

Purpose. The Cadastral Index Maps (CIM) are intended as an index map rather than definitive survey records/plans of cadastral boundaries. The initial Cadastral Index Map (CIM) of existing titled lots in prototype 2 is planned for completion before the land surveys start in each Barangay. This is necessary so that the field validation and reconstitution of land titles does not introduce any new errors such as overlapping or duplicate parcels. In the process any existing errors with titled lots should be identified and corrected.

Map Compilation and Indexes. Map compilation will require a cartographer to trace from existing DENR and LRA Cadastral Maps onto the transparent drafting film of the CIM. Administrative boundaries will be drawn onto the CIM. Titled lots will be shown in black ink with the boundary lines as full lines. Surveyed lots will be shown in draft form, such as dotted lines and dotted annotation. The usefulness of data from the ROD and the Tax Assessors Office for this purpose should be tested during the pilot.

Field Validation. The cadastral boundaries generated during the field validation activity will be added to the CIM in draft form.

Parcel Identifiers. During the prototype activity an optimal system of unique parcel identifiers will be investigated.

Registrations during CIM Compilation. If during the compilation of the CIM, any transfers or new first time registrations are processed through LRA or new subdivisions approved by LMS or LRA a copy of this information must be transmitted to the OSS for inclusion into the CIM.

Registration. The ROD will hold and update the CIMs and will be responsible for converting on registration the individual lot boundaries and annotation on the CIM from draft to final form.

### 5.2. Form of the Cadastral Index Map (CIM)

The CIM will have the following characteristics: only contain spatial information; minimum amount of detail; durable material; simple drafting standards; uniform; joining accurately to adjacent sheets.

The Form of the CIM is shown below:

| No | Description    | Specification  | Remarks   |
|----|----------------|--|---|
| 1  | Materials      | Transparent drafting film that is both durable and stable.<br>Titled lots to be shown in black ink.                  |   |
| 2  | Map Projection | PRS-92 coordinate system<br>PTM grid (2 degrees Transverse Mercator)   |   |
| 3  | Map Scale      | 1: 1,000   | May be 1:500 scale in exceptional cases of small lot size |
| 4  | Map Format     | 1:1,000 - 15 arc seconds by 15 arc seconds (quad of standard 1/4,000 that is a size of 1 arc minute by 1 arc minute) | See AO-98-12  |

| No | Description   | Specification   | Remarks   |
|----|---------------|---|---|
| 5  | Content       | Cadastral Lots of land already issued with registered certificate of title<br>Unique number of each lot<br>Rivers, roads etc that form boundaries<br>Political & administrative boundaries<br>PTM Grid<br>Geographical coordinates of corners of map<br>Map description, north point, scale, index to adjoining sheets, etc | Circle corners of lots. Lots lying across map sheet edges show boundaries up to the map edge. Only show lot numbers on one map sheet for lots lying across map edges.<br><br>Do not show distances, coordinates or bearings |
| 6  | Certification | Date<br>Signatures  | To be signed by OSS cartographer, PIO Manager and ARED for Operations   |

The Form of the Cross Index of Titles (XINDEX) is set out in Annex K.

Note, the lot land area can be very useful during the process of compiling the CIM as a check on errors in identifying the lot. The lot area from the CIM will be an approximation based on a graphical method, usually by placing graph paper under the CIM and counting squares (an alternative is to use a digital planimeter).

### 5.3. Computerisation of the Cross-Indices

The Tax Assessment Record, showing owner names and certificate of title number among other information will be provided by the Tax Assessment Office (TAO) in Dbase format for the five barangays. This format is easily converted into an Excel Workbook. Given the existing capability of the PIO2 staff to use Excel, it is proposed that the data from the TAO data base should be the basis of the XINDEX. The relevant fields of data will be retained and additional fields added. This will reduce, quite substantially, the chance of creating errors in the input of data.

In parallel, a more sophisticated data base system should be developed to hold all of the index information and provide the necessary enquiry and reporting tools. During the early stages of Prototype II the Excel system should be replaced with a simple data base application on a standard PC. A professional programmer should be engaged by contract to design, develop, test and document the application as well as give user training during an estimated period of 6 - 8 weeks. It is proposed that MS ACCESS be the data base used. The fields shown in the indices above would be the basis, in addition to other useful information obtained during the validation process. This system should also be used in Prototype I.

It is not intended that this system replace the BOO system; it is a very specific application to facilitate the records validation process in Prototype II and to prevent introducing new errors into the Land Register. For example, the data base application would ensure that CIM lot numbers and land title numbers are unique, and that there is only one title per CIM lot.

### 5.4. Computerisation of the CIM

It is the intention of the BOO Project to digitise the spatial component of the Cadastre so that it is not necessarily the job of LAMP. Any major effort in digitising of the Cadastre needs to be seen in the light of the need to satisfy the LAMP objectives in quality of

records improvement and the ability of the ROD to keep the LIS up to date. On balance, it is preferred to start the CIM as a hard copy map rather than a digital map but during the prototype to test the cost benefit of digitising the CIM.

Secondly, it is the clear intention of LAMP that the new CIM maps will be in a format very suitable for both digitising and copying and using as an underlay for other purposes. This is to be accomplished by keeping the detail shown on the CIM to a minimum which is possible since the technical descriptions are given in separate Cadastral maps and records.

### 5.5. Registrations During CIM Compilation

If during the compilation of the CIM and the records validation any new applications for land registration are received by the DENR, ROD or LRA affecting lots in the 5 barangays then a copy of this information must be transmitted to the OSS for inclusion on the CIM.

### 5.6. Map Coordinate Systems

Map Coordinate Shift Due to New Coordinate System. The CIM will be a map on the PRS-92 coordinate system and using the Transverse Mercator map projection with zone width of 2 degrees, known as “Philippines Plane Coordinate System (PPCS-TM)”. The new maps must show both annotations; viz. PPCS-TM : PRS-92. Existing Cadastral Maps in Quezon City are on the old geodetic datum of 1911 (Luzon Datum) and since 1965 use the map projection PPCS shown annotated on maps as PTM. The difference in position between the two coordinate systems is to be determined later in 2001 by survey. Preliminary data shows that the Cadastral surveys in Quezon City are on different coordinate systems (most likely using several local origins) and about 2-3 metres offset from PRS-92 (2-3 mm at the map scale of 1/1,000). The table below shows the coordinate differences for these points:

| Location                          | Point | Difference in Northing<br>Luzon – PRS-92<br>(metres on UTM 51) | Difference in Easting<br>Luzon - PRS-92<br>(metres on UTM 51) |
|-----------------------------------|-------|--|---|
| UP<br>Engineering,<br>Quezon City | MMA-5 | -0.29  | -2.21   |
| Oracca,<br>Binondo                | MMA-6 | -0.28  | -2.26   |

However, there could be great variability in the Cadastral surveys because there was never a systematic Cadastral Survey performed in Quezon City, unlike other locations in the country; the surveys were all isolated surveys. Also, how well the primary control was taken into the individual lot surveys is unknown.

### 5.7. Survey Control in Prototype II

Based on the above considerations, the following needs can be identified:

- (i) Survey control on PRS-92 for the making of the Orthophoto maps. Primarily the need is for survey control around the perimeter of the 5 barangays;

- (ii) For the purpose of future surveys being recorded onto the CIM it is important that all new Cadastral surveys be connected to at least two control points. For this constraint to be reasonable for the Cadastral surveyors, it is proposed that the Project provide new control at 1 km spacing in the 5 pilot barangays of Quezon City. This would amount to about 30 new survey control points.
- (iii) If CIM processing starts before the orthophoto maps are available the existing Projection maps and LRA index maps in the concerned barangays may need to have well distributed identifiable points coordinated on PRS-92 so that the local shift can be determined for each map. This will be determined early in 2001. In addition, the existing LRA digital data could be stretched onto this new survey control.

Conditions (i) and (ii) can be met by the 1 km spacing of control; 30 points plus some additional map control on the periphery of the aerial triangulation block adjustment area and the centre of the area (estimated as about 12 points). If activity (iii) goes ahead it will need additional control points in the 5 Barangays, approximately 60 points total.

A survey control plan to place and coordinate the 40 essential points should be implemented as a first step.

## 6. OFFICE VALIDATION OF TITLES

### 6.1. Data Sources – PIO2

| Data Sources      | Survey Plan Copy | Survey Plan Number | TCT Copy | TCT Number | Provisional Title | Owner Name | Lot Area |
|-------------------|------------------|--------------------|----------|------------|-------------------|------------|----------|
|                   |                  |                    |          |            |                   |            |          |
| LRA               | X                | X                  |          |            |                   |            | X        |
| DENR              | X                | X                  |          |            |                   |            | X        |
| LMB               | X                | X                  |          |            |                   |            | X        |
| Assessor's Office |                  | X                  |          |            |                   |            | X        |
| ROD               |                  | X                  | X        | X          | X                 | X          | X        |
| Owner's Copy      |                  | X                  | X        | X          | X                 | X          | X        |

### 6.2. Office Validation of Titles Using the Xindex

Existing records (titles, plans, tax declarations) will be validated in the office using the XINDEX form as follows;

Using the tax map (by section) each PIN entry on the Xindex form shall be checked for title number, survey plan number, owner and area information against the corresponding Survey Plan information and Title information records held by the LRA, LMB, DENR and ROD.

Each entry that has complete and correct information evidenced by a match between all source documents shall be noted in the remarks column as Office Check Validated, with certification by the appropriate officer

Parcels that are validated should be noted and coded V in the XIndex.

When the three source items of information do not agree, the difference shall be noted on the remarks column and further verification/ checking shall be made within the available records for possible error in the entry. For example;

A parcel exists in the survey plan and has been plotted on the CIM, but no corresponding record can be found in the Tax Assessor's file.

The title is shown on the Assessor's Office records but no corresponding title in the ROD. Need to check first that it is not a clerical error in the tax record.

A tax record (but with no title indicated) and survey plan exists, but no title held in the ROD. Use "mother" survey plan to search forward and back transactions for current records. Also contact original developer to see if original lot is still under their title or ownership.

There may be a clerical error in the Assessor's Office records where the same title number is used but will have different survey plans. A check of the survey plans will identify different titles.

A separate file also exists at the Assessors Office which identifies cases of overlapping or duplicate title because multiple tax payments are made on the same title. This file should be checked to identify anomalies.

The LRA maintains a register of all Saved Titles (TCTs not destroyed by fire) and a register of all Reconstituted Titles. If a title is listed in the ROD as missing or burned, these title numbers should be checked against the Reconstituted Title Register, and if listed then New Title ordered and checked to reconcile the Index.

### 6.3. Unresolved Errors that Require Field Validation

When the three source items of information do not agree and can not be resolved by office checks, the difference shall be noted on the remarks column and in the Unresolved Error Report with certification by the appropriate officer. For example;

#### Missing Titles

Title number is shown in tax records or survey plan, but the title not available, lost or destroyed in ROD records.

#### Duplicate Titles

Two or more titles have been lodged in the ROD for the same land. Also two or more titles may be shown in the tax records or on survey plans for the same area.

#### Overlapping Surveys

Different survey plans exist for the same area or overlapping area. Identified during CIM compilation stage.

#### Not Tax Record

The lot appears in the survey plan and is plotted on the CIM but no corresponding record can be found in the tax file.

#### Gaps between titles/parcels

This situation does not occur very often unless all records for a particular parcel have been lost, or in areas adjoining rivers or other non surveyed land.

#### Additional Reasons

| Search Outcome                   | Validation Code | Action Required |
|----------------------------------|-----------------|-----------------|
| <b>Office Records Data Match</b> |                 |                 |
| Title, Survey, Tax, Owner, Area  | V               | Office Check    |
| Title, Survey, Tax, Owner        | -               | Office Check    |
| Title, Survey, Tax, Area         | -               | Office Check    |
| Title, Survey, Tax               | -               | Office Check    |
| Title, Tax                       | -               | Office Check    |
| Survey, Tax                      | -               | Office Check    |
| <b>Missing Title</b>             |                 |                 |
| Title on tax records             |                 | Field Check     |
| Title on survey plan             |                 | Field Check     |
| <b>Duplicate Title</b>           |                 |                 |

|                            |  |             |
|----------------------------|--|-------------|
| Two or more titles in ROD  |  | Field Check |
| Two titles on survey plan  |  | Field Check |
| Two titles in tax records  |  | Field Check |
| <b>Overlapping Title</b>   |  |             |
| Different survey plans     |  | Field Check |
| Overlapping surveys        |  | Field Check |
| <b>Non Updated Records</b> |  |             |
| Tax records not updated    |  | Field Check |
| Title not updated in ROD   |  | Field Check |
| <b>Gaps Between Title</b>  |  |             |
| No records available       |  | Field Check |
| Non surveyed land          |  | Field Check |

These unresolved errors will then be referred to the Field Verification team as written Reports of Unresolved Parcels and with colour coded parcels marked on copies of the CIM.

## **7 RECONSTITUTION AND FIELD VALIDATION OF TITLES**

(In the later part of 2001, the procedures to reconstitute and validate titles in the field will be investigated and documented in this section of the manual.).

## 8 DISPUTE RESOLUTION

The new approach to land adjudication is to streamline operations and speed up the overall process. However, the rights of the State and the landowners are not to be compromised. Indeed, through mass reconstitution and field validation of land titles it is found that there is a stronger system as all people in the barangay are involved in the process at the same time. This is in contrast to ordinary registration proceedings where there is a single applicant for title.

Through the massive CRS program of the Project any misunderstandings can be corrected. Through local CRS the neighbours can meet in a small group and resolve amongst themselves any problems and with the assistance of respected social organisations at the barangay level. The emphasis is on solving problems at the grass roots level. The motivation will be strong to do this, since any unresolved dispute will cause the title not to be issued under the Project. In this case, an individual application will have to be made later at higher cost and taking a longer time.

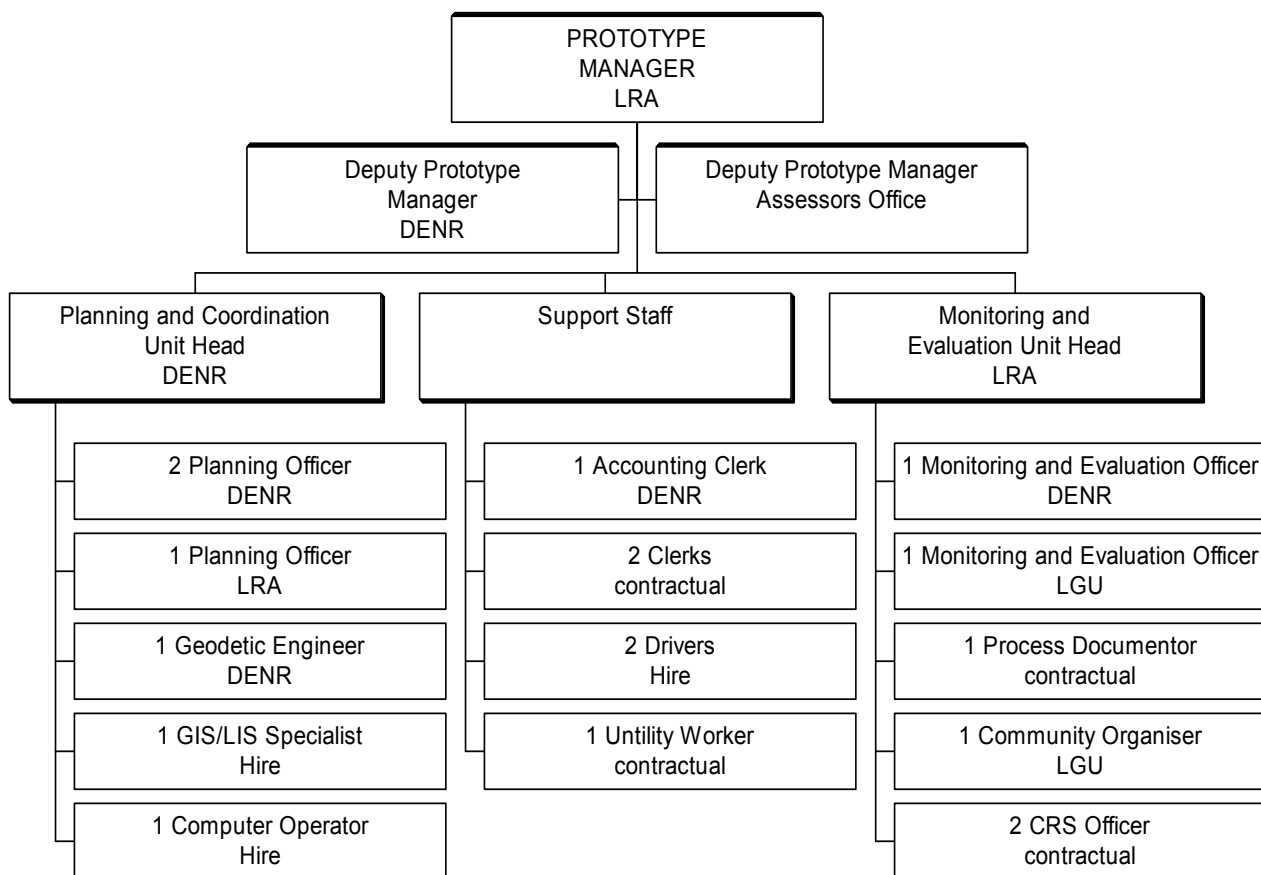
The results of mass reconstitution and field validation of land titles will be put on notice at the Barangay Hall in the concerned village for 30 days. This is to facilitate the resolution of any dispute and to clarify any uncertainties or omissions. The requirements for field offices for the field validation team will be established during the implementation of the prototype. The project teams will be trained in dispute resolution and customer service to prepare them for the tasks of answering queries from the public and helping to resolve disputes.

Failing the resolution of disputes by the people among themselves and with the assistance of the adjudication team, the approach has three parts as outlined in “Manual on Settlement of Land Disputes”, DENR, March 1995:

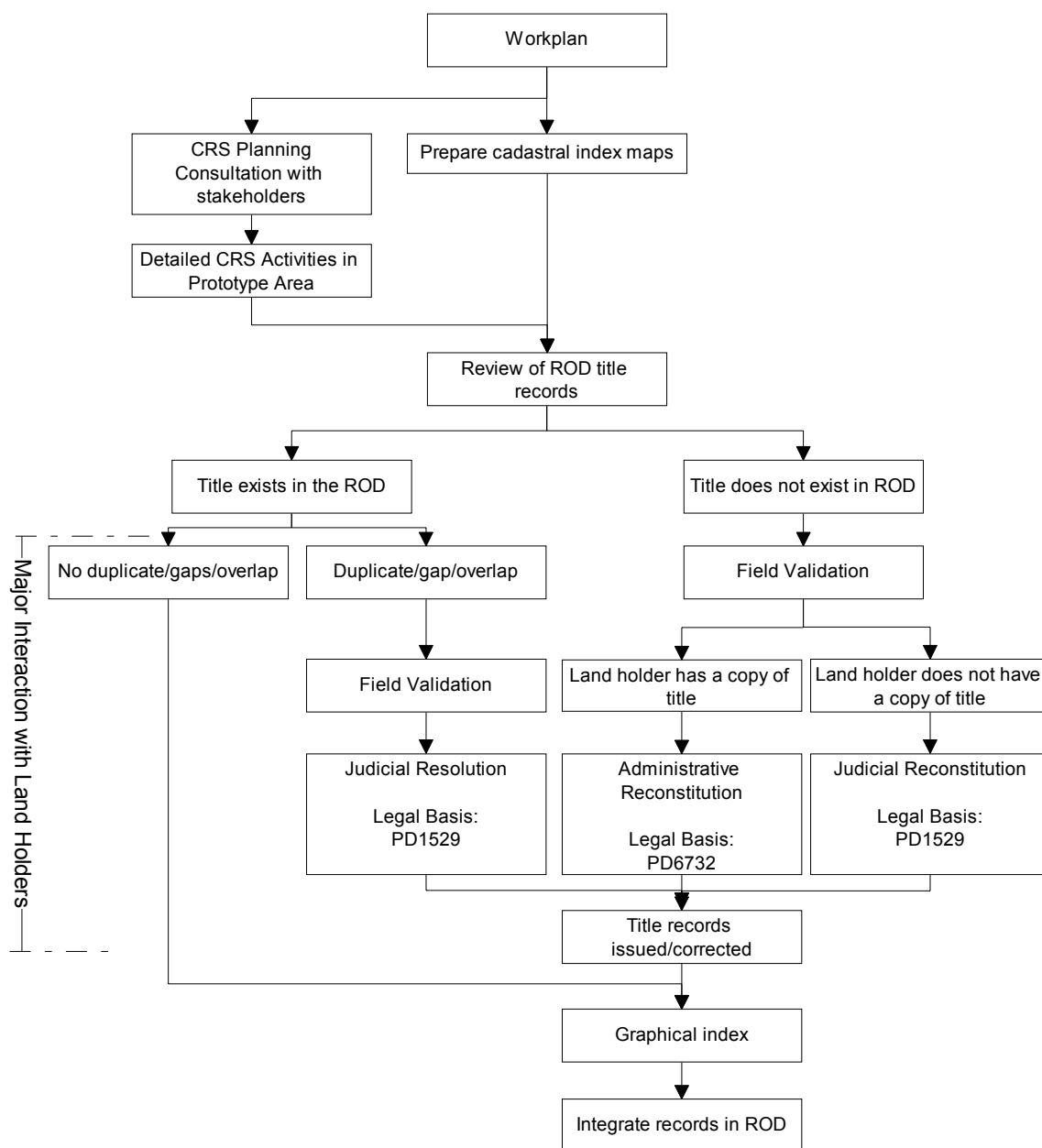
- (i) Barangay Settlement. The Barangay Captain in close collaboration with the other leaders will address claims/disputes over public land applications. The result will be reported. Unresolved disputes will be referred on.
- (ii) Administrative Settlement. The DENR has authority to decide on disputes under its area of jurisdiction or over conflicts/disputes relative to public land applications, which in nature need not be directly referred to the Courts. Investigators have the right to obtain information from any source such as neighbours and respected people in the barangay so as to ascertain the true facts.
- (iii) Judicial Settlement. The last resort will be to file the case to the court by either of the contesting party for settlement and resolution, which will result in higher cost and longer time. The Project will try to lessen these type of cases

It is important to note that DENR instructions require staff to assist aged and illiterate land owners to prepare and present their evidence (Lands Office Circular 68, section 7).

**A. Organisation Structure for Prototype 2 Implementation Office**



## B. Overview of Land Records Validation Process for Prototype 2<sup>7</sup>



<sup>7</sup> From Figure 1, Annex 6 of PPR.

### C. Form of Orthophomap

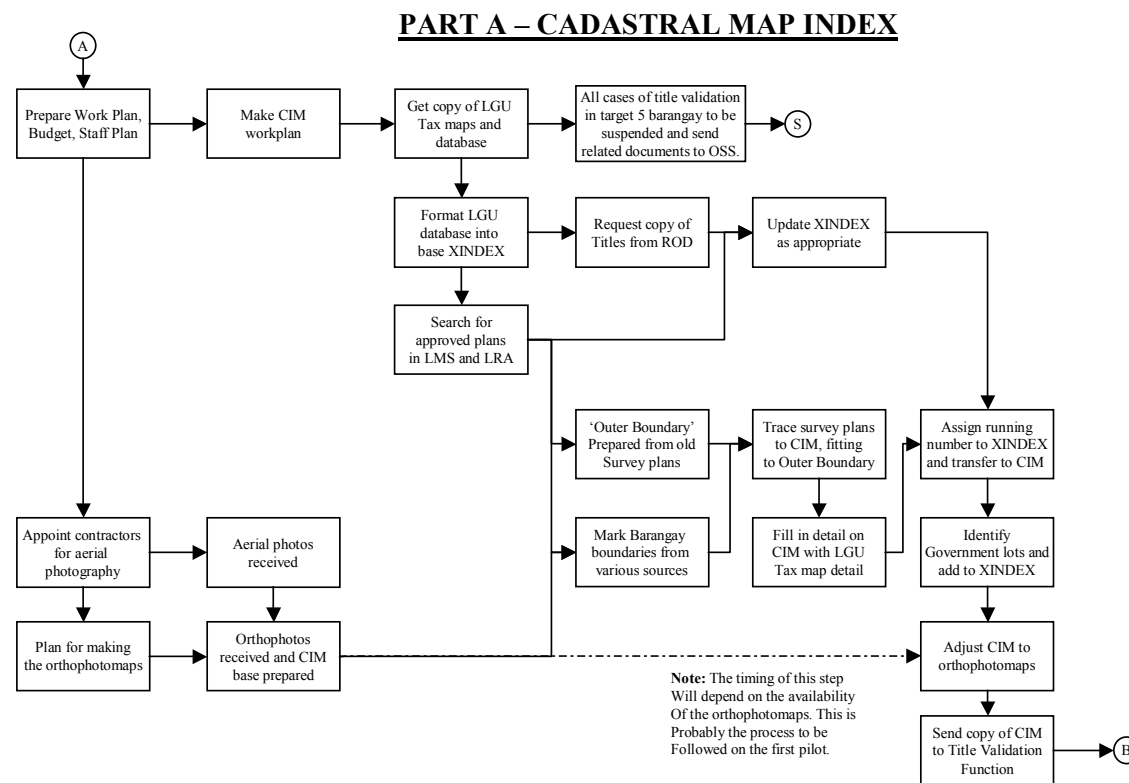
The Orthophoto map to be used on the LAMP will be of two types:

- (i) 1:1,000 Urban Area Map. This orthophoto map will be used in Prototype II. The area is in Quezon City and the purpose is to construct a CIM as an overlay to the orthophoto map.
- (ii) 1:4,000 Rural Area Map. This orthophoto map will be used in Prototype I. The area is in Alang-Alang Municipality of Leyte Province. The orthophoto map will be used to check the compilation of the CIM from the DENR and LRA Cadastral maps. It may also be used for the pilot test on photomap based Cadastral surveying of lots.

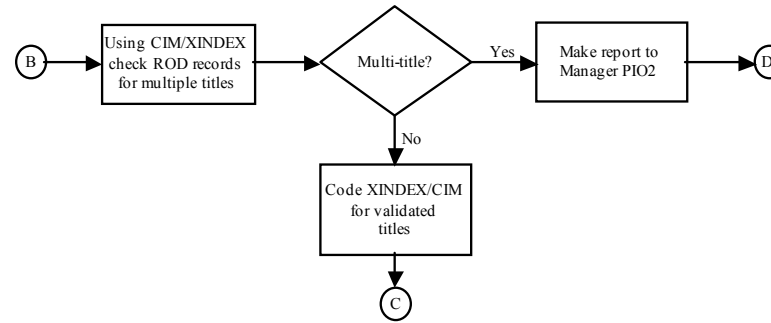
The Form of the Orthophoto Map is shown below:

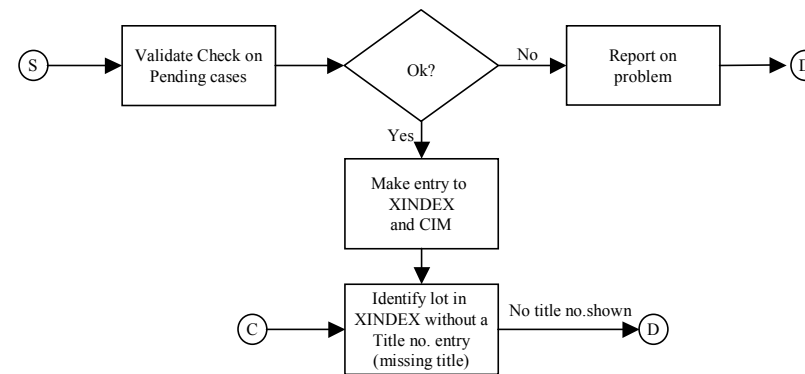
| No | Description    | Specification  |
|----|----------------|--|
| 1  | Material       | Opaque stable film that is durable (similar to Cronopaque).<br>Panchromatic with sharp image and good tonal quality.   |
| 2  | Map Projection | PSR-92 coordinate system<br>PTM grid (2 degrees Transverse Mercator)   |
| 3  | Map Scale      | 1: 4,000, in Alang-Alang<br>1:1,000, in Quezon City  |
| 4  | Map Format     | 1:4,000 - quad of the standard 1: 4,000 map sheet, which is of size 1 arc minute by 1 arc minute. The bottom left corner of the sheet is defined by the geographical coordinates of latitude and longitude (not map grid coordinates).<br>1:1,000 - 15 arc seconds by 15 arc seconds   |
| 5  | Content        | Orthophoto image<br>PTM Grid<br>Geographical coordinates of the 4 corners of the orthophoto map<br>Map location, north point, scale, index to adjoining sheets, etc<br>Map projection name and Zone<br>Coordinate system name<br>Date of photography<br>Name of Project, "Land Administration and Management Project".<br>Name of organisation that produced the Map and date of production (month – day – year) |
| 6  | Quality        | Map is produced from the photo closest to the centre of the map sheet, so that shadow / hidden areas of buildings is a minimum (very important for the Quezon City orthophoto mapping).<br>Maximum 1mm map join error on any pair of adjoining sheets<br>Good tonal contrast.  |

### D. Block Diagram of the Validation and Reconstitution of the Land Register in Quezon City

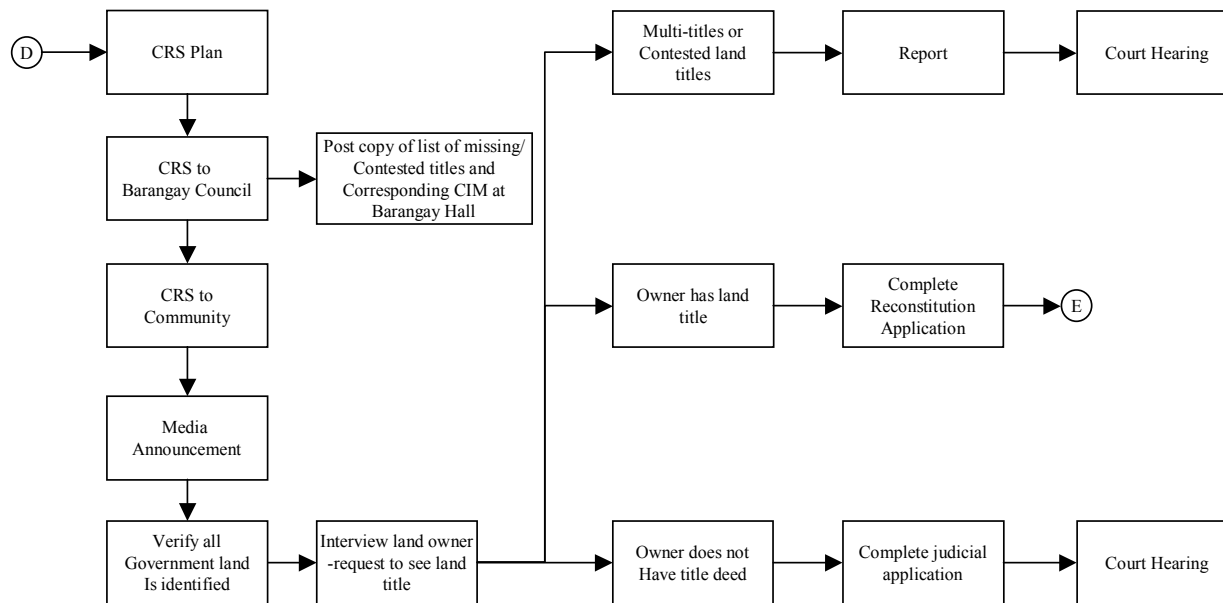


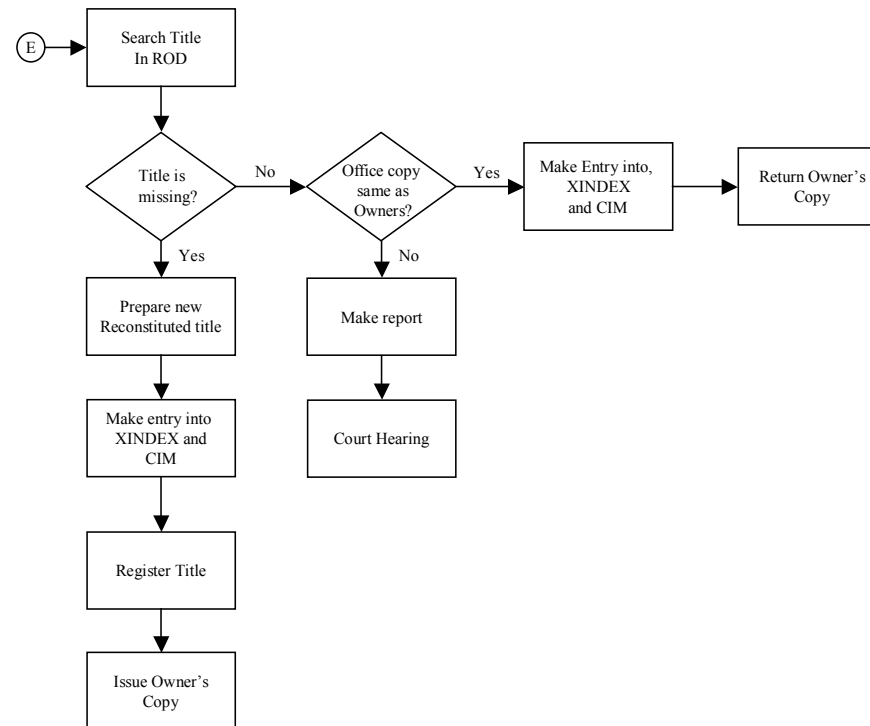
**PART B – VALIDATION OF TITLES**



**PART C – RECONSTITUTION OF MISSING TITLES**

**PART D – FIELD INVESTIGATION TO RECONSTITUTE  
MISSING / DUPLICATE TITLES**



**PART E – RECONSTITUTION OF TITLE BASED ON FIELD INVESTIGATION**

**E. LAMP MONITORING AND EVALUATION PLAN FOR PROTOTYPE 2**

(the M&E plan for Prototype 2 has not been prepared and will be prepared during the bridging II TA)

**Table 1: M&E Baseline Indicators For Prototype 2**

| No | BASELINE ACTIVITY INDICATORS | MEASURABLE INDICATOR | TARGET | REMARKS |
|----|------------------------------|----------------------|--------|---------|
|    |                              |                      |        |         |

**Table 2: Monitoring and Reporting Activities For M&E Of Prototype 2**

| No | PROTOTYPE<br>MILESTONES | I<br>ACTIVITY | MEASURABLE<br>INDICATOR | PERIOD | BY | REMARKS |
|----|-------------------------|---------------|-------------------------|--------|----|---------|
|    |                         |               |                         |        |    |         |

## **F. Example of Validation Reporting Forms**

(The Validation reporting forms have not yet been prepared)

## G. LAMP TRAINING PLAN FOR PROTOTYPE 2

### 1 OVERVIEW

#### 1.1 Objective and Scope of Prototype 2 Training Requirements.

To meet the objectives of Prototype 2 the staff will need to do different tasks, and to do tasks in a different operational environment to that which they are traditionally familiar. They will need to place greater emphasis on coordination with staff, other organisations and the streamlining of operations. To realise these changes successfully, will require the staff to be trained to do the new tasks as well as understand the philosophy and approach required.

The staffing of the Prototype 2 will consist of:

- (i) Officers of various participating organisations
- (ii) Hired employees
- (iii) Contracted organisations, such as survey and mapping companies, and NGO's.

As the staffing resource proposal and the operational environment signifies a significant change, a comprehensive program of staff training is required.

#### 1.2 Needs Analysis for Training of Staff of Prototype 2

(needs to be established) *Does the workshop and outcomes conducted at DENR 23 – 24 November 2000 apply to PIO2?*

### 1 NEEDS

The Training needs analysis conducted before the start, and during the initial stages of the Prototype 2 operation is as follows:

| No | JOBS                            | Self Rated Capacity | Skills Gaps   |
|----|---------------------------------|---------------------|---|
| 1  | Project Management              |                     | Project Management objectives, benefits, skills and techniques.<br>Scheduling and documentation and update (tracking) of work progress against plans, especially using PC such as, MS Project.<br>Awareness of relationship between land administration components. |
| 2  | Finance, Budgeting, Procurement |                     | World Bank requirements for financial management and procurement.<br>PMO requirements for financial management and procurement.<br>Cost accounting.   |
| 3  | Human Resource Development      |                     | Design and evaluation of training programmes.<br>Staff procurement and staff appraisal processes.<br>Staff management techniques.<br>Training of Trainer skills.  |
| 4  | Monitoring & Evaluation         |                     | Analysis tools and methods.<br>M & E input and outcome analysis   |
| 5  | Process Documentation           |                     | Report writing, especially presentation of processes.<br>PC skills.   |
| 6  | PC Computer Operating           |                     | Operating system, networking, word processing and spreadsheet.  |

| No | JOBS              | Self Rated Capacity | Skills Gaps  |
|----|-------------------|---------------------|--|
| 7  | CRS / IEC         |                     | Community development and interpersonal skills; use of various communication mediums; public relations.<br>Analysis of social factors and developing questionnaires  |
| 8  |                   |                     |  |
| 9  |                   |                     |  |
| 10 |                   |                     |  |
| 11 | Surveying         |                     | Network adjustment and quality control of GPS data<br>Conversion between coordinate systems<br>Using GPS for direct Cadastral surveys  |
| 12 | Mapping           |                     | Cadastral Index Mapping search and compilation processes<br>CIM updating and mutation of lots upon sub-division and consolidation.<br>Maintaining the integrity of the Register by keeping the indexes up to date.<br>OSS operations.<br>Map projections and coordinate conversions.<br>Automated cartography and Digitising<br>AutoCad operator training<br>AutoCad programming training<br>MS Excell, MS Access training<br>LIS systems, system analysis and relational databases. |
| 13 | Land Registration |                     | Awareness of alternate systems and strengths and weaknesses.<br>Revision training.   |

## LAMP TRAINING PLAN FOR PROTOTYPE 2

Based on the needs analysis the particular skills and knowledge training courses identified are shown in the table below. Note, that this will evolve as there is further input and analysis:

| No | JOBS Course                               | Topics   | Participants             |                        | Trainer                      | Course Location |
|----|---|--|--------------------------|------------------------|------------------------------|-----------------|
|    |   |  | Source                   | Number                 |                              |                 |
| 1  | Project Management                        | Project management objectives  | PIO, DENR, DAR, LGU      | 12                     | Management training company  | Manila          |
|    |   | Planning & scheduling<br>Tracking tasks & milestones<br>Use of MS Project on PC              |                          |                        |                              |                 |
| 2  | Finance, Budgeting, Procurement           | World Bank procedures on finance   | PIO                      | 4                      | PC Training Co.              | Manila          |
|    |   | World Bank procedures on procurement   | PIO                      | 4                      | WB, PMO                      |                 |
|    |   | PMO procedures on finance & procurement  | PIO                      | 4                      | WB, PMO<br>WB, PMO           |                 |
| 3  | Human Resource Development                | Training Programs Design, documentation and evaluation                                       | PIO                      | 4                      | Training Co, PMO             | Manila          |
|    |   | Staff procurement, staff appraisal<br>Staff management techniques<br>Training of Trainers    |                          |                        |                              |                 |
| 4  | Monitoring & Evaluation                   | Data analysis tools & methods  | PIO, ROD, LGU            | 8                      | Training Co.                 | Manila          |
|    |   | M & E objectives, inputs and outputs   |                          |                        |                              |                 |
| 5  | Process Documentation                     | Report writing, PC skills, Process flows documentation                                       | PIO, DAR                 | 6                      | Training Co.                 | Manila          |
| 6  | PC Computer Operating                     | Windows, Networking, MS Office   | OSS, ROD, LGU, DAR, DENR | 3x12                   | PC Training Co.              | Manila          |
| 7  | CRS / IEC                                 | Communication, public relations, service to the public, Gender equity                        | OSS, ROD<br>SVTs<br>PIO  | 20<br>23 per team<br>4 | Training Co.<br>Training Co. | Manila          |
|    |   | Designing social assessment programs and analysis  |                          |                        |                              |                 |
| 8  | Title Reconstitution and Field Validation | Laws, procedures, work flows, filling forms, responsibilities, reporting, dispute resolution | SAT, CRS, PIO            |                        | PIO, PMO, CRS, TA            | Manila          |
| 11 | Surveying                                 | Coordinate transformation, network   | PIO, OSS,                |                        | TA , NAMRIA                  | Manila          |

| No | JOBS Course                         | Topics  | Participants                  |        | Trainer  | Course Location |
|----|-------------------------------------|---|-------------------------------|--------|--|-----------------|
|    |                                     |   | Source                        | Number |  |                 |
|    |                                     | adjustment, GPS, survey control   |                               |        |  |                 |
| 12 | Mapping                             | CIM searching, CIM compilation, CIM Indexes, survey control and map coordinate transformation, CIM updating, Digital Mapping, AutoCad, LIS  | PIO, OSS, ROD, SAT            |        | LMS, TA<br>DAR/SwedeSurvey. TA<br>AutoCad Training Company, TA | Manila          |
| 13 | Land Records Management for OSS/ROD | OSS roles, responsibilities and operations<br>Titling regulations, procedures, forms, responsibilities, work steps<br>Land transactions, processes, record keeping, computerisation (BOO)<br>Awareness of alternative systems | OSS, ROD, PIO, DENR, LRA, LMB |        | PIO, ROD, LRA, TA  | Manila          |

## **H. RESPONSIBILITIES FOR UNITS OF THE ONE-STOP-SHOP**

(The responsibilities of the units in the OSS have not yet been defined. A workshop needs to be arranged to prepare this document).

## **I. JOB DESCRIPTIONS FOR THE FIELD VALIDATION TEAM**

(This document needs to be prepared)

**J. CRS WORKPLAN FOR 2001**

(This plan needs to be prepared)

## K. SAMPLE XINDEX FORM