Philippines-Australia Land Administration and Management Project

CADASTRAL SURVEY AND MAPPING REPORT FOR OUTPUT 3.1, ACTIVITY 13

Prototype 2, Quezon City

June 2002

REPORT D6

PA-LAMP

CADASTRAL SURVEY& MAPPING REPORT

Prototype 2 Quezon City, Manila

June 2002

A. INTRODUCTION

1. The project is multi funded with inputs from the World Bank under a Learning and Innovation loan, the Australian Government through an AusAID grant and the Government of the Philippines. The loan was executed in October 2000 and became effective in January 2001. The grant funding for technical assistance was contracted to the AMC (Land Equity International) on 5 October 2001. The WB –GRP loan agreement plans that the project should attain its objectives by late in year 2003.

Objectives of Land Administration and Management Project

2. The objectives of the Project are to test alternative approaches to accelerate 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.

Objective and Scope of Prototype 2

3. 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:

- CIM[1] and making of cross indexes (XINDEX) to control duplicate land titles and for other administrative purposes;
- Validating existing titles held in the ROD[2];
- 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;
- Integration of the new records into the ROD, streamlining of land registry operations to maintain quality of land register documents and exchange of land information between related agencies of government.

4. 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 learnt from this Prototype, and also from the rural activities in Leyte in the Prototype 1, and will also link with the implementation of the BOO[3] Project.

5. The project followed a Bridging Project that instigated the procedures that are in place, but

[1] Cadastral Index Map
[2] Registry of Deeds
[3] Build-Own-Operate

these would be modified and tested to obtain standard tested procedures that would be suitable to implement throughout the Philippines in Urban situations.

6. The lead agency for managing the prototype is the LRA[1], while DENR[2] and Tax Assessors Office also are stakeholders who will be sharing the facilities of the OSS[3]. The composition of prototype personnel are from LRA, DENR and Tax Assessors Office, the remaining staff are employed on a contractual basis by the prototype.

Organisation and Management of Prototype 2

7. The policy making body for the LAMP is a Taskforce created by virtue of Executive Order No. 82 on 13th March 2002. The Taskforce is under the Executive Secretary and consists of seven members, being:

- Senior Consultant on Poverty Alleviation and Good Governance;
- Secretary DENR;
- Secretary of Justice;
- Director General of NEDA[4];
- Presidential Adviser on Official Development Assistance Absorption;
- Two representatives from private sector, preferably from real estate development and/or banking industry, designated by the Executive Secretary

8. There is also a Technical Working Group to support the Taskforce. Members are: from the DENR – LMB[5], FMB[6], MGB[7], PAWB[8], EMB[9], ERDB[10] and NAMRIA[11]; from the DOJ[12] – LRA, COSLAP[13]; from the DOF[14] – BLGF[15], BIR[16]; from the DA[17] – BSWM[18]; from the HUDCC[19] – HLURB[20], NHA[21].

9. The focus of this Prototype is the ROD[22] and the head of the PIO[23] is a senior manager from LRA. Key participating agencies are the DENR and LGU[24]. The PMO[25] will provide support services such as procurement and financial management. A PIO 2 has been established at

[1] Land Registration Authority
[2] Department of Environment and Natural Resources
[3] One Stop Shop
[4] National Economic Development Agency
[5] Land Management Bureau
[6] Forest Management Bureau (DENR)
[7] Mines and Geoscience Bureau (DENR)
[8] Protected Areas and Wildlife Bureau (DENR)
[9] Environment Management Bureau (DENR)
[10] Ecosystem and Research Development Bureau (DENR)
[11] National Mapping Resource Information Agency
[12] Department of Justice
[13] Commission on the Settlement of Land Disputes (DOJ)
[14] Department of Finance
[15] Bureau of Local Government Finance (DOF)
[16] Bureau of Internal Revenue (DOF)
[17] Department of Agriculture
[18] Bureau of Soils and Water Management (DA)
[19] Housing and Urban Development Coordinating Council
[20] Housing and Land Use Regulatory Board (HUDCC)
[21] National Housing Authority (HUDCC)
[22] Registry of Deeds
[23] Project Implementation Office
[24] Local Government Unit
[25] Project Management Office

Quezon City Hall to manage and coordinate the activities of prototype 2.

10. The structure of this report is;
    (a) Introduction
    (b) Pilot Study Location
    (c) Purpose/Task
    (d) Cadastral Surveys and Records
    (e) Cadastral Index Maps
    (f) Orthophoto Maps
    (g) Issues
    (h) CIM Lessons Learnt
    (i) Training
    (j) Conclusions
    (k) Recommendations

    Attachments:

    1 Procedures Manual for CIM Production

    Annexes:

    1. TOR International - Land Parcel and Mapping Adviser
    2. TOR National - Land Survey and Mapping Adviser
    3. CIM Production Flow Chart

B. PILOT STUDY LOCATION

11. The Prototype is being implemented in 5 barangays in District 2 of Quezon City.

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

Prototype area

12. One of the main reasons for the choice of these Barangays is that the Quezon City's ROD was previously burnt down and all records destroyed. This then gave way to many spurious titles being either duplicated or fake; also the area is intermingled with many informal settlers.

C. PURPOSE/TASK

13. The overall task in the prototype is to assist in the development, documenting and training on methodologies and processes to create CIM from existing map data in the offices of participating agencies, using survey information and orthophoto maps to control the mapping process. Evaluate and report on the quality and completeness of existing survey data held by various agencies. Include a method to ensure that any land parcel subdivisions/consolidations are captured onto the CIM. The CIM is fundamental to the identification of fake, duplicate and missing titles in the Quezon City pilot area and the processes should be integrated with other prototype processes. In particular, the CIM and associated database records as they are finished are then handed over to the Office and Field Validation steps, within PIO2. The integration of the CIM into the OSS and ROD is a key task in order for the quality of the records to be sustained into the future. The approach will involve feedback from community groups in all stages of the work in addition to PIO2 and other agencies in:

- procedures;
- technology;
- organisational arrangements;
- staffing and training;
- resource sustainability;
- quality assurance and management.

Procedures

14. The main procedural input was to take the existing Procedures Manual for CIM Production developed under the Bridging Project and produce a manual that could be utilised throughout the Philippines in the urban situation.

Technology

15. The introduction to new technology will take place in the way of producing CIM from orthophoto maps which are based on the PRS92[1] Datum.

16. The implementation of a database is necessary so that all different agencies records can be cross indexed and retrieved to easily enable the identification of fake and duplicate titles. These records are also to be cross indexed (linked) to the CIM which is the spatial and most integral component of the system when identifying parcels and their associated land records.

Intergration

17. The integration of the CIM into the OSS and ROD is a major part of the overall organisational arrangements, because the OSS is where the "clients" will come to find out any information about their land parcel and associated records, as well as to conduct land transactions such as transfers.

Staffing and Training

18. Staff are to be trained to produce CIM by manual methods ie "hand drawn" and to integrate the CIM with the data held within the database.

Resource Sustainability

19. To achieve resource sustainability the staff and management must fully understand the procedures and methodology of the project with respect to the compilation of the CIM.

Quality Assurance and Management

20. A system of QA[2] is to be implemented so as the data being produced is correct in all aspects. Management must be made aware of the importance of QA.

D CADASTRAL SURVEYS AND RECORDS

Cadastral Surveying

21. The surveying situation in Quezon City is not considered good. All surveys are connected to BLLM[3] in other municipalities by calculation and if these were projected into a computer (the original mother lots have been) it will be noted that there are overlaps and gaps at the common corners.

22. There is no system of placing permanent reference marks when conducting surveys, the corner monuments are placed but soon disappear when construction of fences or buildings commence. If an identification/relocation survey of any lot is undertaken by a surveyor they must reinstate the entire block to ensure that the identification survey is correct, but then they don't extend across streets to ensure that deed distances are kept. In other words the survey will float. In most other countries the surveyors leave either hidden (below the surface) or visible permanent reference marks to allow the next surveyor to be able to reinstate the original survey relatively easily, thus reducing the cost to the client. In Quezon City the costs will always be high due to the existing survey methodology, past surveys and the lack of survey marks.

[1] Philippines Reference System 1992
[2] Quality Assurance
[3] Bureau of Lands Location Monument

BLLM 1 position

BLLM1 should be positioned where the concrete is broken

Survey Records

23. The TA has sighted the records area of DENR, but unfortunately has not been able to visit LRA, although requests to LRA were made on a number of occasions but to no avail. We understand that LRA records are mainly microfiche, for half of the original records have been destroyed or are missing. Information from LMB staff indicates that the records management system is equivalent to that of DENR.

24. Development in survey records management in all agencies has not improved over the last 30 years or more, in fact the production of new records every year has caused greater pressure on records administrators to keep pace in storing, handling and servicing the public with information. Inefficiency and neglect has caused the loss, destruction and deterioration of records. It seems that agency managers do not appreciate the importance of a well managed records system. This is reflected by the following conditions:

- Lack of budget to operate records administration;
- Inadequate space for records;
- Poor technically trained personnel in records management units;

- Lack of equipment and materials for records maintenance and reconstruction.

DENR

25. The inspection of the survey records in both Region 8 and NCR has the following common observations:

- Space used is too small for the volume of records in place, elevated racks and stands to the ceiling are fully stacked, small passageways are sometimes filled with records that are bound or bundled into sacs.

Survey plans in shelves

Survey plans and records jammed in shelving

- The filing system of maps, plans and survey records is inadequate;
- The methodology of storage especially survey plans leads to plans being folded, rolled and just pushed into what space is available, this leads to fast deterioration and defacing;
- There is no complete inventory of records;
- Deteriorating records are left to rot;
- Reconstruction of missing and deteriorating records needs to be prioritised;
- Training of records personnel is required;

- The records system lacks budget, equipment, materials, space and personnel;
- Inefficient records servicing is common especially when improperly kept and records do not have an inventory;
- Significant volume of records are missing;
- Security copy of NCR records are kept in the same location;
- Most records have no duplicate copies stored in another location, which poses a complete loss in case of fire.

E CADASTRAL INDEX MAPS

26. The CIM is the an integral part of the approach to improving confidence in land records for it is the spatial component that ties all land records together coherently and avoids overlapping and duplicate titles. The CIM has associated with any given parcel of land within the CIM by the means of a Unique CIM and UPI[1] ie the XINDEX key.

CIM Production

Accomplishments

- A Procedures Manual for Urban and Rural CIM Production has been produced, but will need periodic updating when new methodologies are implemented or improved upon, see Attachment 1;
- Barangay Batasan Hills is being redrawn with a block shift applied to enable the CIM to be on the PRS92 system, but the absolute position of parcels within the CIM is unknown. Tests will be conducted when the orthophoto maps are received from NAMRIA;
- Barangay Holy Spirit has been completed by digitising but not on the PRS92 datum and not in the in the final format that has been accepted by both prototypes, this was the first area to be subject to CIM;
- Software was written to give both geographical and grid coordinates in PRS92 for the CIM map extents, this also calculates the actual size of the sheet, and this depends on the location of the project area ie the width of the CIM changes as the Latitude changes;

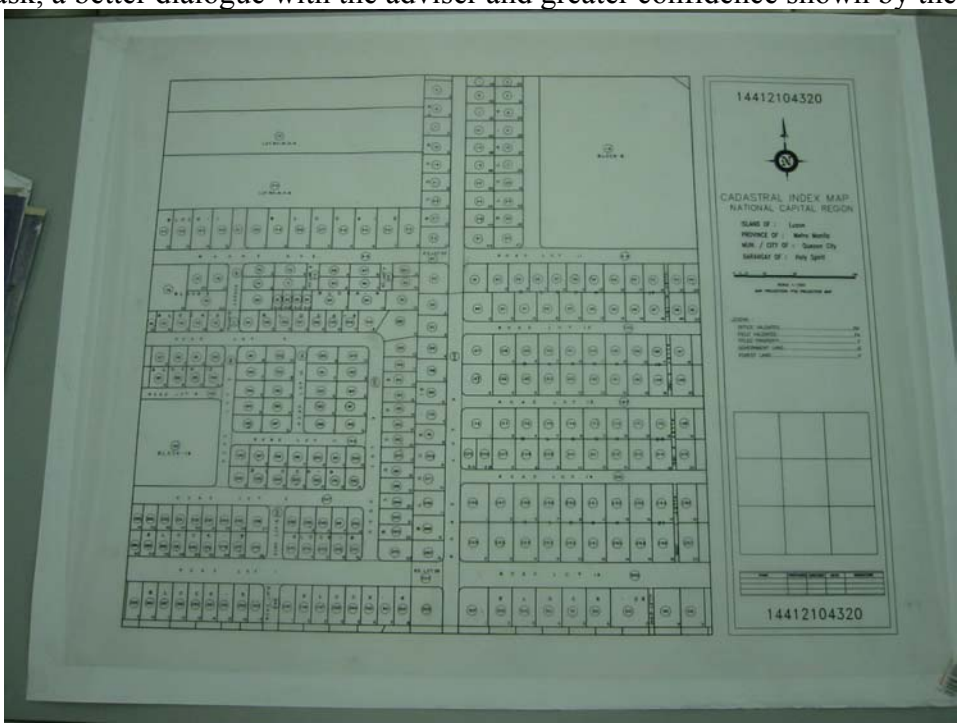
[1] Unique Parcel Identifier

- A CIM map numbering system that is unique which uses the base map geographical coordinates of the 1:4000 bottom left hand corner as the base reference coupled with the sheet reference down to the scale of 1:500. By using this system any CIM at any of the 4 standard scales used can be easily located geographically anywhere within the Philippines;
- A standard CIM format acceptable to both prototypes has been designed;

Table of CIM production

Barangay	Original Hand Drawn (Jan 02) pencil	Preliminary Completed	Preliminary Partially Completed
Holy Spirit	24	3	18
Batasan Hills	32	2	30
Orthophoto Map	0	0	1
Total	**56**	**5**	**49**

- With the appointment of a new CIM manager with good educational background the lessons from the first 3-4 months have resulted in a more consistent approach to the task, a better dialogue with the adviser and greater confidence shown by the CIM staff.



Incomplete Provisional CIM

F ORTHOPHOTO MAPS

27. The methodology of applying orthophoto maps for CIM production in support of identifying fake and duplicated titles will be tested in the pilot area under the output of 2.3. The study will metamorphose into supplementary guidelines for mapping to support land title referencing.

28. The orthophoto maps will be available in August. The problem of delays is due to the GPS[1] surveys have not been completed and adjusted to PRS92 by NAMRIA and this naturally holds up the photogrammetric work involved in producing the final product.

[1] Global Positioning System

29. Two orthophoto maps have been purchased from another source; this methodology has started being tested at the time of writing this report.

Testing CIM compilation by Orthophoto Map

G ISSUES

30. PIO 2 has the unenviable task of implementing a project with sound and relevant objectives but they are not easily understood by the stakeholders.

31. Overall PIO 2 was tasked to develop a system of integrated land records, of surveys and titles, to validate these so that land title registration is free from fraud and other anomalies. A successful design and implementation of the pilot project in Quezon City could mean easy replication throughout the Philippines. The task causes concern for project designers and implementers; there are vital issues that need addressing:

- Quezon City did not have a cadastral survey, its rapid development as a premier city forced land owners to initiate individual isolated surveys when subdividing. Each subdivision is tied to either a local reference BLLM or to a previous approved survey, which in turn makes the surveys non homogeneous;
- The loss of records, due to the burning of Quezon City's ROD is a significant incident; reconstruction of these records is both difficult and highly risky and the validation of records presented would be extremely difficult;
- The advantages of the title holder presenting their title to the field validation teams is not a clear benefit to them, as far as they are concerned they already have a title and the project is not giving them a service;
- What has the project to offer to the informal settlers in terms of services and security in the lot that they occupy, can the project assure them help so that they could continue occupying the property;
- Does the project have the capability to provide immediate services to the stakeholders concerned;
- Are sectoral interests of participating agencies strong enough to generate real cooperation.

32. Management issues are:

- Procurement of vital equipment has been an on going battle in the prototype and unless these are addressed, the outputs required will not occur;
- Cooperation from the lead agency (LRA) during the first 6 months of PA-LAMP has been almost zero;
- The prototype management is leaves much to be desired, due to:
  - The way other participating agencies staff are treated ie indifferently;
  - The amount of private work carried out by the management and their agency staff;
  - Their attitude to the work in hand and management of the project in general, these factors make the prototype nearly unworkable. Note this does not apply to all the seconded staff from the participating agencies, but to the majority thereof. One of the only things that keep the project going in the correct direction is the attitude of the majority of the contracted staff, yet they are not appropriately guided by the management.
- Retrieving survey plans from LRA is difficult;
- In May, the prototype management eventually realised what should have been produced in the first six months of this year, and that was hand drawn CIM, the cartographic unit is now back on track and continuing in producing CIM in this method.

33. CIM and Surveying issues are:

- CIM production basically came to a halt in February when the then CIM manager halted all work in hand drawn CIM due to huge errors encountered and not following the existing Procedures Manual. The direction was then focused on digitisation, against the advice of the TA;

Digitising of Survey records

- The Procedure Manual for Urban and Rural CIM Production's structure is; where new technology or methodology of CIM compilation is introduced, it will appear as a separate annexure. At present it holds only one annex and that is by manual (hand drawn) means, ie compiling the CIM manually from survey plans. This method is considered tedious and laborious and with out proper survey control is prone to errors and as planned at output 3.2 starting July 2002, other methods will be used, tested, evaluated and documented;

- For barangays Batasan Hills and Holy Spirit, the GPS control was conducted due to the orthophoto maps not being available and to allow the two barangays to be adjusted to and redrawn on PRS92 datum. The intent was to select easily identifiable cadastral corners on the CIM and coordinate those using GPS. The adjusted selected points were only received in April. The intent was to compare the GPS values with those of the corresponding coordinates as plotted on the CIM and do a simple block adjustment but certain problems arose, being:
  - The results of the of CIM coordinates were rejected many times by the TA and asked to be reviewed, due to noting obvious errors of certain points being up to one kilometre in error;
  - These were not finalised until May and due to the commitments of the TA in both prototypes and the production of the manual and reports, this study has not been completed;
  - The studies reveal that in barangay Batasan Hills there is shift and rotation, to accommodate this, the CIM would need to be completely reconstructed. Due to time limits the TA has suggested that a block shift be applied, this barangay will be redone in the orthophoto map testing and the results will be compared and documented;
  - In Barangay Holy Sprit it is a different situation all together; this is where the huge errors were found when the CIM production by manual means was detected. There is no constant relationship between the GPS coordinates and that of the CIM. Due to the amount of work involved in completely re compiling the CIM from scratch, it was decided to use the digitised data which is not on the PRS92 datum to have CIM so that Office and Field Validation's could continue;
- NAMRIA working for the Project in Prototypes 1 & 2 have been later than planned in completing the GPS control. This has delayed the orthophoto maps production for both Prototypes. The project has purchased two orthophoto maps from a different source, but the photography is about 5 years old. This method is being tested at the time this report is written;
- The surveying system as practiced is not considered good practice; see Section D of this report;
- CIM materials not available at the beginning of the project are still not available, ie:
  - Drafting tables;
  - Drafting equipment, technical pen and pencils, inks etc (the staff have been supplying their own);

34. BOO Project:

- There has not been a lot of communication with LARES the contractor for the BOO Project in the early stages of the project;
- Meetings were consequently held with LARES but the project is awaiting a Memorandum Of Agreement to be drawn up, this has not happened to date;
- At this stage PA-LAMP is more valuable to the BOO Project than the other way around:
  - The BOO Project is now running at least 12 months behind schedule;
  - PIO 2 are obtaining copies of the titles manually where it was initially intended to get these electronically from LARES;
  - Considering that the CIM side of BOO is extremely poor and does not account for all parcels of land, ie only those that are registered with (ROD), this would leave huge gaps in their CIM. On the other hand PIO 2 is capturing all lots which gives the full picture and not a patchwork;

- The CIM being created by BOO is not on PRS92 datum and at this stage cannot be pieced together due to being compiled from the technical descriptions which invariably do not close, and relate to the inconsistent BLLM's mentioned earlier.

One Stop Shop and PIO 2 Accommodation

35. Due to the procrastination of LRA, the OSS has not opened in time, the original accommodation requires renovations and this moot point has been raised with LRA on many occasions. The proposed accommodation at this time is inadequate for the OSS to function.

36. The project was promised certain accommodation for PIO 2 and TA in January which was in one area. LRA is now offering split accommodation which is not as originally planned and smaller than now being used at Quezon City Hall. There is no way that the project can be housed comfortably; "sardine accommodation" will not help quality production and technology transfer.

Present Office location at Quezon City Hall

H CIM LESSONS LEARNT

37. CIM lessons learnt are:

- A manual was produced in the Bridging Project but never disseminated amongst the CIM staff, but only to managers;
- The manual was never followed;
- Documentation of records and their movements were never kept;
- CIM were made within barangays only, ie lots stopped at the barangay boundaries;
- Too much reliance on computers, ie when the plotter broke down the methodology of plotting the mother lots to control subsequent surveys was abandoned where in normal circumstance would have been done by hand. This introduced huge errors in the compilation, ie uncontrolled CIM compilation;
- No unique CIM numbering system, but numbered by barangay and sheet within the barangay;
- Use of photocopier for enlargements and reductions of survey plans causes distortions;
- CIM were not produced to International Best Practice;

- Staff only allowed to do certain tasks in the CIM compilation, ie not allowed to do the whole process;
- Personnel not being fully briefed with the projects objectives and work within the CIM unit except their own small contribution;
- Lack of supervision;
- Lack of QA;
- The halting of hand drawn CIM after errors were detected and not moving on and rectifying the process but starting another method (digitising) without too much thought put into the process;
- No consultation with the other prototype for standardisation of CIM format and contents.

38. The limitations of the past have been addressed and overcome in most instances, but more attention needs to be directed towards QA.

I TRAINING

39. The main source of training has been "on the job". More furniture, equipment and floor space is necessary for a better training environment.

CIM Training Conducted

Workshop	Subject	Attendees
Basic Automated Drafting	A basic knowledge of automated drafting and applied to digitisation	CIM staff
CIM format design held in PIO2	Standard CIM format was agreed upon by both prototypes	Selected CIM staff
CIM format	The design of a unified CIm between both prototypes	Selected CIM staff from both prototypes
Basic Hand Drafting	Overview and basic drafting skills	CIM staff
Lessons Learned 1st quarter	CIM lessons learned	CIM staff
Basic Computer Operation	Skills in computer operation, ie word, excel and windows	CIM personnel that have no computer skills
Lessons Learned 2nd quarter	CIM, lessons learned	CIM staff
CIM process flow	Flow charts for the CIM process	Selected CIM staff
Lessons Learned 2nd quarter	CIM lessons learned	CIM staff
CIM Manual	CIM manual reviewed	CIM Staff

J CONCLUSIONS

Surveying and Survey Records

40. The state of urban cadastral surveys especially in Quezon City is in disarray and fraught with problems from:

- inadequate survey instruments being used ie old transit theodolites, instruments that are not calibrated etc;
- quality and the capability of survey parties;
- in some cases manipulation of survey results before presenting them to the authorities;
- the lack of permanent reference marks either hidden (underground) or visible;
- dismal records management system which tends to allow valuable records to deteriorate;

- a reference system that ties all surveys by calculation to monuments that inevitable have been destroyed for a long period of time and in most cases are kilometres away from the survey itself;

Cadastral Index Maps

41. Within urban areas especially where rapid growth has occurred and no cadastral surveys have been undertaken the CIM produced by "hand drawn" methods is considered very tedious. The initial experience was that there was no PRS92 survey control available and the methodology used to produce the CIM was not considered sound. Cadastral surveys plans used are not on the same reference system and in some cases the calculated tie line to the BLLM (base monument) can be tens of metres in error depending on the distance from the monument. This would entail that all surveys would need to be swung in azimuth and then a block shift applied to place it on the PRS92 datum prior to being inserted in the CIM, and this requires a great deal of work. It is futile to contemplate starting the production of CIM without the relevant control in place.

42. The orthopho maps from NAMIRA could not be tested due to the delays encountered and the purchase of two maps from a different source was done in May but the equipment (light-tables) required for testing this system of CIM compilation only arrived in the last week of June. This system is being undertaken at the time of writing this report. Unfortunately no definite conclusions or recommendations can be made in this report, but on the basis of the Thai and Lao experience this could be the most suitable method of CIM production.

OSS and PIO 2 Accommodation at LRA Compound

43. The proposed accommodation for both the OSS and prototype are unacceptable for both production operations and for technology transfer.

K RECOMENDATIONS

Surveying

44. It is recommended that:

- Upgrading of the basic skills base of the survey industry is carried out prior to and during the implementation of the LAM Program, this would entail upgrading of the university programs and the introduction of technical colleges;
- That DENR Administrative Order No. 98-12 should be thrown out. A recompilation of the Order and a more flexible approach to types of valid cadastral surveys be introduced, and the Order does not read like a text book and is separated into:
  - Survey Act;
  - Survey Regulations, Recommended Guidelines and Practices;
- Considering the limited capacity of NAMRIA and the failure to adhere to contractual deadlines, it should be considered that for the LAM Program, international tenders be obtained for both the GPS and orthophoto map production;
- A system be installed and awareness to the profession in the placement of reference marks, so that future surveys over land that has been surveyed is cheaper to the client and easier for the surveyor to perform;

Cadastral Index Maps

45. It is recommended that the following areas be addressed:

- There is on going training in:

- Production Management;
- QA;
- Alternate methods of CIM compilation.

- PIO2 needs to spell out to PMO their procurement needs well in advance, but allow some flexibility in changing project direction when introducing new technology;
- Management issues, to be addressed;
- CIM production is not commenced in the LAM Program in urban areas without the associated control available, albeit GPS or orthophoto maps.

Records Management

46. It is recommended that:

- The records from DENR and other associated agencies need to be scanned for archival purposes;
- Records administration and management should be addressed throughout all participating agencies.

Orthophoto Maps and Associated GPS Surveys

47. It is recommended for the LAM Program that:

- International tenders are sought for the production of orthophoto maps and associated GPS control.

OSS and PIO 2 Accommodation

48. The prototype does not move into a smaller segregated cramped office space but wait until reasonable accommodation is offered.

49. The OSS accommodation is not manned until it is fit for the purposes and is seen as the front door of the project, not a shabby ill fitted area that would demean the project, and discourage customers.

CRS Activities in barangay Holy Spirit

end of report.

Annex 1

TERMS OF REFERENCE

INTERNATIONAL LAND PARCEL MAPPING ADVISER

First Part of Long Term Assignment (2001/2002)

The Land Parcel Mapping adviser to the LAMP Project will work at both Prototype 1 (Leyte) and 2 (Quezon City). The exact timings will be determined month by month depending on the work needs. It is expected that slightly more time will be spent at prototype 2.

The adviser will report to the TA team leader. The Land Parcel mapping adviser will work closely with Project counterparts at each Project site.

The approach at all times will provide the Project with best practice, a safe working situation and be Gender sensitive. The adviser will cooperate with the members of the Quality Assurance Panel whose job it is to verify that TA outputs are of a suitable standard and completeness. To this end, the adviser shall maintain an up to date work plan and have regular review meetings with counterparts on progress, issues and changes to the plan. A monthly report will be submitted to the team leader.

This TOR addresses the first 6 months of the assignment. A new TOR will be prepared for the later stages of the assignment.

The International Land parcel mapping adviser will be responsible for completing the following work no later than 30 June 2002 (reference is the PDD and the work to be completed is described as Deliverables 11 and 13 in the AusAid – AMC contract):

1. The overall task in prototype 1 is to assist in the development, training, testing and documenting of procedures and methods for mapping land parcels prior to land titling, during systematic land titling and at the time of land registration in order to support the overall first time issuing of land titles. A number of survey methods are planned to be used including ground surveys, photomaps and satellite imagery. The various survey plans and maps being produced will be reviewed and improved and training provided. The process of parcel mapping must be smoothly integrated with the other titling activities. The mapping should be on the standard national coordinate system. Quality assurance must be built into the processes. Training and workshops will be a feature to obtain consensus on new approaches and for technical skills upgrade. Any additional equipment to improve the work outputs are to be reported. It is planned that both judicial and administrative titling (possibly free patents if an amendment to the concerned Commonwealth Act is passed) will be implemented in target test Barangays. Further, assist the OSS and ROD so that the CIM and other land records are integrated into normal work processes and especially, that they are used to avoid errors in issuing fake or overlaping titles. Assist on presenting results and recommendations to the LAG and PMO.

2. The overall task in prototype 2 is to assist in the development, documenting and training on methodologies and processes to create CIM from existing map data in offices of participating agencies, using survey information and orthopohotos to control the mapping process. Evaluate and report on the quality and completeness of exisiting survey data held by various agencies. Include a method to ensure that any land parcel sub-divisions / consolidations are captured onto the CIMs. The CIMs are to be fundamental to the identification of fake, duplicate and missing titles in the Quezon City pilot area and the processes should be integrated with other protoytype processes. The integration of the CIMs into the OSS and the ROD is a key task in order for the quality of the records to be

sustained into the future. The approach will involve community groups in all stages of the work in addition to the PIO2 agencies.

3. The priority and specific outputs from the adviser are:

   a) Prototype 1: Report covering the following. documentation and training on initial procedures and methodologies for land parcel survey and mapping in the Judicial Pilot, and evaluation report on progress in the implementation focussing on obstacles and solutions and lessons learned;

   b) Prototype 2: Report covering the following. documentation and training on initial CIM compilation and use in records quality improvement in related agencies and especially in the ROD. Testing of the quality to be reported. Lessons learned from workshops to be reported. Further development to be recommended.

4. Document the procedures and produce operational manuals. Prepare relevant training programmes and assist in staff training and training evaluation.

5. Provide assistance in the development of a strategy to design and operationalise the OSS.

6. Work with stake holders to develop strategies, organisational linkages and relationships that support Protoype activities.

7. Assist the PMO and PIO2 in interactions with the BOO project in LRA.

End

Annex 2

TERMS OF REFERENCE

NATIONAL SURVEY AND MAPPING ADVISER

First Part of Long Term Assignment (2001/2002)

The Survey and Mapping adviser to the LAMP Project will work primarily at Prototype 1 (Leyte) and only as required on specific assignment at PIO2 (Quezon City).

The adviser will report to the TA team leader and work as a team with the other TA advisers, in particular the international land parcel mapping adviser and systematic registration adviser. The adviser will work closely with Project counterparts.

The approach at all times will provide the Project with best practice, a safe working situation and be Gender sensitive. The adviser will cooperate with the members of the Quality Assurance Panel whose job it is to verify that TA outputs are of a suitable standard and completeness. To this end, the adviser shall maintain an up to date work plan and have regular review meetings with counterparts on progress, issues and changes to the plan. A brief monthly report will be submitted to the team leader.

This TOR addresses the first 6 months of the assignment. A new TOR will be prepared for the later stages of the assignment.

The overall task in prototype 1 is to assist in the development, training, testing and documenting of procedures and methods for mapping land parcels prior to land titling, during systematic land titling and at the time of land registration in order to support the overall first time issuing of land titles. A number of survey methods are planned to be used including ground surveys, photomaps and satellite imagery. The various survey plans and maps being produced will be reviewed and improved and training provided. The process of parcel mapping must be smoothly integrated with the other titling activities so that the maps are directly used to control mistakes in duplicating surveys and patent and title issuing. Access to CENRO information is important for identifying earlier surveys and LRA for earlier title registration.

The mapping should be on the standard national coordinate system (PRS 92). Quality assurance must be built into the processes. Training and workshops will be a feature to obtain consensus on new approaches and for technical skills upgrade. Any additional equipment to improve the work outputs are to be reported. It is planned that both judicial and administrative titling (possibly free patents if an amendment to the concerned Commonwealth Act is passed) will be implemented in target test Barangays.

Further, assistance is to be provided to the OSS and ROD so that the CIM and other land records are integrated into normal work processes so that they are used to avoid errors in issuing fake or overlapping titles. Assistance is to be given on presenting results and recommendations to the LAG and PMO.

Further, assistance will be provided to ensure that the land lot surveys are performed to suitable levels of accuracy and completeness and well documented. This is to include instructions on standard recording of occupations; i.e. boundary monuments, both artificial and natural. Assistance on methods to test and accept the work of the private sector and better filing and keeping of the valuable survey records.

Together with the other TA advisers develop better ways to streamline the overall process of survey, adjudication and office processing, leading to land title registration.

Work together with the systematic land registration adviser to design and document more efficient processes for free patent issuing and registration (this assumes that the Free patent Law will be passed).

The overall task in prototype 2 is to assist in the development, documenting and training on methodologies and processes to create Cadastral Index Maps (CIM) from existing map data in offices of participating agencies, using survey information and orthopohotos to control the mapping process. Evaluate and report on the quality and completeness of exisiting survey data held by various agencies. Include a method to ensure that any land parcel sub-divisions / consolidations are captured onto the CIMs. The CIMs are to be fundamental to the identification of fake, duplicate and missing titles in the Quezon City pilot area and the processes should be integrated with other protoytype processes. The integration of the CIMs into the OSS and the ROD is a key task in order for the quality of the records to be sustained into the future. The approach will involve community groups in all stages of the work in addition to the PIO2 agencies.

The national survey and mapping adviser will be responsible for completing the following work no later than 30 June 2002 (reference is the PDD and the work to be completed is described as Deliverables 11 and 13 in the AusAid – AMC contract):

8. The top priority specific outputs from the adviser are:

    a) Prototype 1: Assist the International land parcel mapping adviser to prepare a report covering the following; documentation and training on initial procedures and methodologies for land parcel survey and mapping in the Judicial Pilot, and evaluation report on progress in the implementation focussing on obstacles and solutions and lessons learned. Training summary report;

    b) Prototype 2: Assist the International land parcel mapping adviser to prepare a report covering the following; documentation and training on initial CIM compilation and use in records quality improvement in related agencies and especially in the ROD. Testing of the quality to be reported. Lessons learned from workshops to be reported. Further development to be recommended.

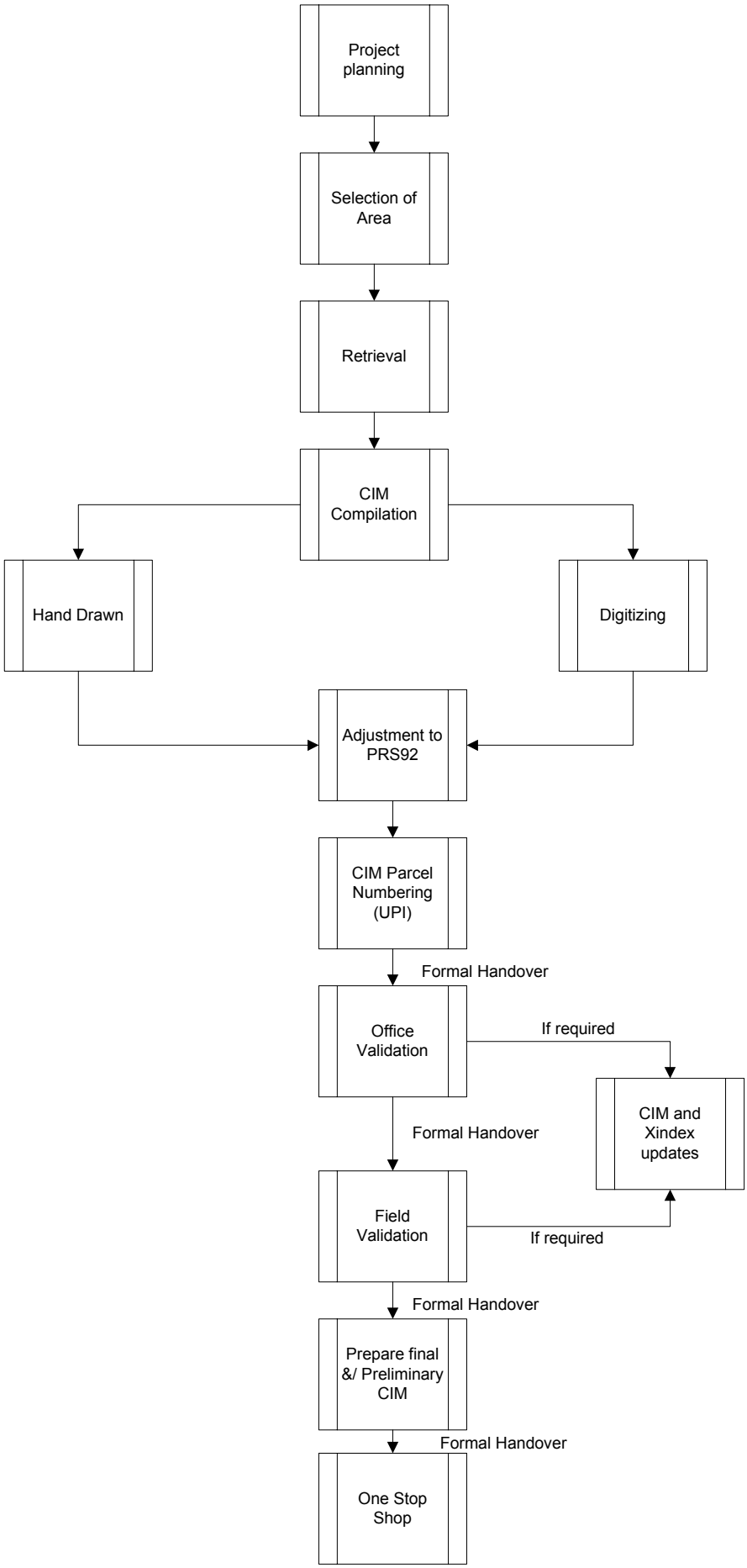
9. Document the procedures and produce operational manuals for survey and mapping to support the Judicial Titling pilot. Prepare relevant training programmes and assist in staff training and training evaluation.

10. Provide assistance to operationalise the OSS at Leyte.

11. Work with stake holders to develop strategies, organisational linkages and relationships that support Protoype activities.

End

Annex 3


Project planning
Selection of Area
Retrieval
CIM Compilation
Hand Drawn
Digitizing
Adjustment to PRS92
CIM Parcel Numbering (UPI)
Formal Handover
Office Validation
If required
CIM and Xindex updates
Formal Handover
Field Validation
If required
Formal Handover
Prepare final &/ Preliminary CIM
Formal Handover
One Stop Shop