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JUN 23 2010

**DEPARTMENT ADMINISTRATIVE ORDER
NO. 2010 - 18**

**SUBJECT: IMPROVING MANAGEMENT OF LAND INFORMATION
THROUGH THE ADOPTION OF THE LAND ADMINISTRATION
AND MANAGEMENT SYSTEM (LAMS)**

Pursuant to Executive Order No. 192 series of 1987 mandating the DENR to formulate policies and develop systems for the effective management of land records and information, the adoption of the Land Administration and Management System (LAMS) is hereby prescribed:

Section 1. Objective – This Administrative Order is issued with the objective of improving the services of LMB and LMS sector through the following:

1. Provision of a uniform system for the LMS in all Regions in the computerization and linking of land information pertaining to Cadastral Maps, Approved Land Survey Plans, Public Land Applications, and Titles.
2. Identification and correction of missing, erroneous and conflicting land records.
3. Provision of an effective management of land records through database and imaging technology and by computerized inspection, verification, and approval of survey returns.
4. Establishment of an integrated land information system in LMS and LMB to support effective land titling activities, and any future collaboration with other sectors of DENR and other agencies' operations and the dissemination of electronic land information to local government and other users.

Section 2. Scope and Coverage – This order covers the implementation of LAMS in LMB and all LMS offices including PENROs, and CENROs.

Section 3. Definition of Terms – The following terms as used in this Administrative Order shall be defined as follows:

- a) Land Administration and Management System (LAMS) – a system enhanced land record management facility that ensures integrity of and access to land information such as cadastral maps, isolated survey plans, public land applications, patents and titles, and also to perform quick processing of land transactions and updating of land records as well as the tracking of applications undergoing processing. This is supported by a digital cadastral database that provides a spatial reference.
- b) Land information – pertains to the textual and spatial information derived from various land records covered in LAMS.

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- c) Land Information Management – management of land information in a jurisdiction for accurate and complete access to land information by stakeholders including government, private and public sector.
- d) Cadastral Map – the standard map used in a cadastral survey project, drawn to specified scale, in which are indicated all land parcels in the project area as systematically surveyed and therein described as prescribed in the Revised Manual for Land Surveying Regulations (DENR DAO 2007-29).
- e) Land Survey Plan – a depiction of one or more land parcels at a suitable scale for the purpose of defining the boundaries of the land and usually with prescribed technical details such as coordinates, bearings and distances, survey marks, occupations etc.
- f) Digital Cadastral Database (DCDB) – a database of spatial information of land parcels in a jurisdiction or portion thereof. It may contain attribute data linked to each parcel. The spatial data is maintained up to date as land parcel mutations occur. It appears as 'computerized map' showing property boundaries but in addition maintains relationships between adjacent land parcels. It is not normally used for boundary definition but is used as a layer of spatial data used in many other applications, and used to validate that land parcels do not overlap or are missing in various other applications.
- g) Spatial Data Infrastructure (SDI) – the policies and laws, programs, institutions and relationships, land record holdings (documents and electronic data) and capacity, which constitutes the land information management in a jurisdiction or country.
- h) Public Land Applications (PLA) – applications filed in the DENR agencies for purposes of obtaining title to public lands through administrative proceedings.

Section 4. Principles for Improved Management of Land Information – The LMS and LMB shall adopt the following principles in improving the management of the paper based and electronic land records and data:

- (i) **National Spatial Data Infrastructure (NSDI)** – the land information of the LMS and LMB forms an important component of the country's spatial data infrastructure and is important for operations of national government, local government and business as well as for public information. The LMB/LMS shall play an active role in the relevant committees and inter agency forums to progress the development of the NSDI.
- (ii) **Access to land information** - the LMB/LMS shall ensure the provision of maximum access to land information by both government and the public at the most reasonable costs. Furthermore, DENR shall strictly require specific agreement/contract for any access to LMB/LMS land information by any Third Party for the purpose of obtaining commercial benefit from selling or otherwise dealing in DENR data to capture, process or output, in whole or in part, any land data of LMB/LMS.
- (iii) **Spatial Parcel Identifier (SPI)** - there should be an inclusion of (SPI) based on the approved survey plan, in all electronic data bases compiled by LMB/LMS that uses land parcels. This does not

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preclude other parcel identifiers being used as appropriate, such as the PIN of the LGU.

- (iv) **Custodianship of land information** -in preparing and implementing new systems in LMS and LMB, there shall be agreement on which office is responsible for maintaining each important land data/record up to date and the characteristics of the data, such as definition, access rights, confidentiality, and currency (up-to-date). On data of national importance, this should also be agreed by LMB/LMS with the other agencies concerned under the NSDI.
- (v) **Integrity of land information** - the LMB/LMS shall ensure integrity of land information through continuous effort of cleansing the land records of inconsistencies, duplication, errors and fraud. Budget shall be allocated for activities (office or field based) for this purpose. This will improve the reliability of records and will add further value to the efficiency obtained through computer assisted processing of land
- (vi) **Security of land information** - At all LMS/LMB sites where computer systems support substantial land data bases, there will be appropriate security arrangements on access to the network and data base, anti-virus protection, backup of databases, and other related system administration arrangements. All major land systems will include an audit trail of persons who made changes to the key data in the database.
- (vii) **Confidentiality of land information** - Data in computer systems shall have similar confidentiality as the same data in written documents. Data exchanged with other agencies shall show any limits of release due to confidentiality.
- (viii) **Minimal duplication of land data** - Both within LMS/LMB and external organisations, duplication of the original captures and maintenance of land records shall be minimised. Where this cannot be avoided, a commitment to keep said parties notified of changes/updates shall be required.

Section 5. Adoption Of LAMS As The Standard System For Computer Based Land Records Management

The Land Management Bureau and all Regional Land Management Services offices including PENROs and CENROS shall adopt LAMS for the management of their land information in computerized form.

LAMS shall serve as the platform for managing the land data of LMS/LMB in a decentralized environment. Data may be inputted from other systems such as the PRS92 Project of NAMRIA and the Land Titling Computerization Project of the Land Registration Authority. Likewise, links with the LGUs shall be established on a demand driven and partnership approach to increase the LGU revenue collection, planning, and other systems.

The component land databases of LAMS may include; (i) Registered titles; (ii) Lots on approved surveys; (iii) Approved Surveys; (iv) Public Land Applications; (v) Images of records and maps; and (vi) DCDB. Further land

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information sets may be added as deemed appropriate and in accordance with the principles and objectives given in this order.

LAMS shall also keep track of land transactions lodged through LMS/LMB offices and provide statistics for management reporting. LAMS shall provide functionality to allow computer aided varification and approval of survey returns. It shall also assists to identify erroneous records and keep a database of land records under review due to errors, omissions, and conflicts of records within DENR and between DENR and ROD.

Section 6. LAMS Adoption Process – The LMB shall oversee the implementation of this order and ensure that LAMS is successfully installed in all the concerned offices. It shall:

1. Disseminate to the LMS the pre-requisites for the installation and successful operation of LAMS as well as possible sources of funds;
2. Assess the readiness of Regional LMS offices to adopt the LAMS and develop and maintain a workplan for implementation of LAMS;
3. Issue necessary guidelines on installation and operations, and update the guidelines from time to time as appropriate;
4. Arrange for the necessary training on the system for start-up, data capture, and operations;
5. Create an ICT Division to monitor LMS offices for further enhancements to the LAMS to improve services, prioritise and develop the LAMS, either in-house or through local contractor;
6. Coordinate with other organisations and provide data access to ensure effective linkages and avoid duplication of land data capture; and
7. Report to management and to regions on overall progress of deployment and performance.

The Regional offices shall:

1. Prepare a list of available IT resources and dedicated staff and physical plans for locating the new equipment to accommodate the installation and implementation of LAMS;
2. Form a Regional LAMS management team to operationalize the LAMS.
3. In co-ordination with LMB, develop a work and financial plan for the full implementation of LAMS;
4. Oversee the preparation, planning, coordination, and implementation of LAMS within its jurisdiction;
5. Provide monitoring reports to LMB;
6. Develop and implement local partnership arrangements to fully attain LAMS objectives.

The PENRO/CENRO shall assign personnel to work on the encoding and scanning of Public Land Applications and other related records, and provide support in the future operations of the LAMS.

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2. Assess the readiness of Regional LMS offices to adopt the LAMS and develop and maintain a workplan for implementation of LAMS;
3. Issue necessary guidelines on installation and operations, and update the guidelines from time to time as appropriate;
4. Arrange for the necessary training on the system for start-up, data capture, and operations;
5. Create an ICT Division to monitor LMS offices for further enhancements to the LAMS to improve services, prioritise and develop the LAMS, either in-house or through local contractor;
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The Regional offices shall:

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3. In co-ordination with LMB, develop a work and financial plan for the full implementation of LAMS;
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6. Develop and implement local partnership arrangements to fully attain LAMS objectives.

The PENRO/CENRO shall assign personnel to work on the encoding and scanning of Public Land Applications and other related records, and provide support in the future operations of the LAMS.

Section 7. Systems Maintenance and Further Development – There will be one LAMS product as a core system, which will be configurable at each site to suit the local needs. The LMB shall provide technical support for the software maintenance and enhancement of LAMS.

Sound IT practices shall be adopted for the development of the LAMS software with development based on design, peer review of the design, version control, documentation and testing stages before release of new versions. The

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principles and objectives set out in this order shall guide the system development. User feedback shall be regularly obtained to guide prioritisation of development. Users shall also include users outside the Department such as LGUs and other public and private sector organizations needing spatial and land tenure data.

The LMB shall manage the implementation, maintenance and further development of LAMS. It shall further incorporate other tenurial instruments such as lease applications and also ensure harmonization with other ENR data.

System performance of LAMS shall be measured through a reporting mechanism established for management decision making on future directions and prioritization.

The LMB shall be an active participant in contributing to the creation of the country's National Spatial Data Infrastructure.

Section 8. Funding Requirement – The Regional offices shall use the IT equipment and softwares provided by the LMB and other available resources in its initial implementation. A work and financial plan shall be developed for the full implementation and further development of LAMS, funding of which may be sourced from the Information Systems Strategic Plan (ISSP) and regular budget. Other sources may be secured through partnership with other agencies and LGUs.

Section 9. Repealing Clause – All orders, circulars, memoranda, and other issuances inconsistent herewith are hereby repealed and/or amended accordingly.

Section 10. Effectivity – This Order shall take effect fifteen (15) days after the publication thereof in a newspaper of general circulation and upon acknowledgement of the receipt of a copy thereof by the Office of the National Administrative Register (ONAR).


HON. HORACIO C. RAMOS
Acting Secretary



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Publication: Philippine Inquirer
July 05, 2010

Acknowledgement: ONAR, U.P. Law Center
July 06, 2010