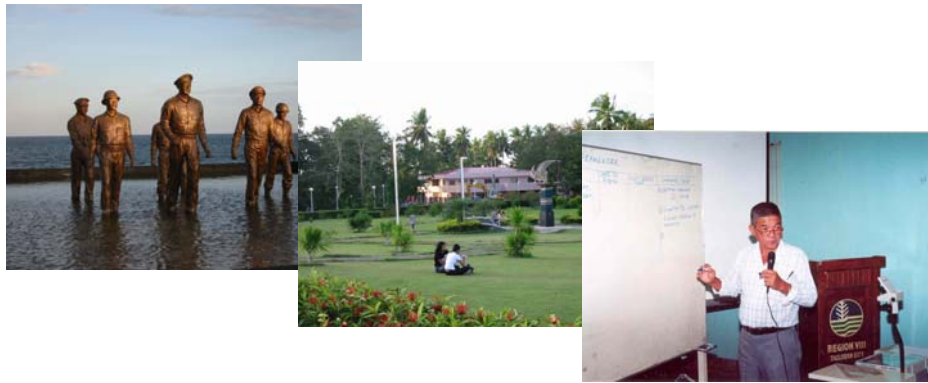




*Republic of the Philippines*  
*Department of Environment and Natural Resources*

# LAMP, PROTOTYPE 1

## Brief Initial Report



## Surveys and Mapping

**April, 2003**

**REPORT C18**



**Land Administration & Management Project**  
**Prototype Implementation Office I**  
**Province of Leyte**

**Interim Report  
On  
LAMP-PIO-1, SURVEY and MAPPING**

1. The Report tries to summarize the happenings at the Pilot-Project at PIO-1, Leyte with an attempt to capture resultant consequences as well as the causative factors that helped shape the issues and problem concerns developed or maintained. The analytical observations were simply to point out weakness which can be worked on collectively in the project. What comes out is a range of past and present realities at the pilot project influencing the successful conduct of project implementation. These were impacting on the implementation mechanism of PIO-1.

A point of observation highlights an imbalance of focus on the objectives for developing technical methodologies and procedures vis-à-vis strengthening the implementation mechanism and project management processes. Some activity scheduling lapses such as the delayed execution of network controls acquisition of GPS, total stations, orthophotos, applicable softwares for CIM and other resource ingredients helped undermine the desired qualitative productivity. It is also recognized that an apparent misunderstanding of the objective focus of LAMP Phase I which is supposed to be a learning and innovative phase diverted scarce resource to spread out quantitative objectives in the project activities in spite of the assumed acceptance that developed systems and procedures were not yet in place. More emphasis initially on developing strong competencies would have given more meaningful results.

PIO-1 was and is fighting an uphill battle. First the project choice of municipalities for pilot in systematic adjudication were already problem areas. Palo was an abandoned project. As such there was already a strong signal that the systematic adjudication would be encountering technical delays. The four barangays of Dagami for judicial titling was a slight improvement. The other municipalities except San Miguel would already have assured that the 30,000 titles initially targeted was simply impossible not even considering that the implementation mechanism was not that strong.

Some key observations to think about with implications for LAMP II:

1. Review the planning process in realistic environment
2. Parallel development of management and technical capabilities
3. Financial planning vis-à-vis activity prioritizing
4. Review of priorities for support peripheral concerns such as gender, social dynamics, NGO-civil society tie ups, CO vis-à-vis CRS.
5. Simultaneous multi-sectoral focusing under limitations of capabilities and resources in the project
6. Review of project design vis-à-vis the expressed goal of poverty alleviation
7. Review of the design of activity structures and the implementing organization

8. Review of the social impact of the technological leap (transit and tape to total station, GPS and computer applications) to the practicing private surveyors. (Most are using transit and tape including government surveyors.)
9. Review the institutional concept framework of Land Registration.
10. Review further the institutional roles of DENR and DAR in an LAA.

There are still probably more to consider but even these alone are already significant. The following is a brief and capsulized exploration of strategic concerns essentially affecting the execution of surveys but can also relate to the other activities of PIO-1. The final report will adhere to the TOR but may also touch on peripheral concerns and issues that can have very significant bearings to the design of Phase II.

Strategic Concerns	Issues & Circumstances	Action Recommendation
<p>Strengthen the Administrative mechanism to implement the cadastral surveys</p>	<ol style="list-style-type: none"> <li>1. Need to address the difficulties of cadastral survey contracting <ul style="list-style-type: none"> <li>- While the bidded projects of PIO-1 for Sta. Fe and Pastrana and Dagami have been awarded, implementation has been delayed. So far only three (3) modules have been started. The municipality of Sta. Fe was about to start but the contractor stalled. The reason is the project cannot pay the 15% mobilization commitment. PIO-1 tried to address the issue but World Bank says that previously released money to the LAMP project should have already covered such payment obligation. PIO-1 is still arranging the payment. Meanwhile some contractors are not starting execution of the project.</li> </ul> </li> <li>2. PIO-1 has very limited number of adjudicators to properly complement the cadastral teams in SNS operations. <ul style="list-style-type: none"> <li>- Cadastral contractors who are rushing their operations are not properly coordinating with the adjudication units of PIO-1 due to the lack or absence of personnel adjudicators to work side by side with the survey units. There is weak coordination of activities among PIO-1 units such as CRS, SAT and field verifiers. Sometimes SNS operations are proceeding without</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>- Review the payment process for the cadastral surveyors and come up with clear administrative procedures in the management of the funds. Specific clearances for the World Bank have to be secured in the release of funds for payment to the survey contractors.</li> <li>- The planning process of the project was not able to anticipate the degree and schedule of needs. While we caused the training of the field verifiers before, the additional batch of trainees did not materialize. This was also true with the adjudication. Recruitment did not push through even after the interviews of applicants last March. Because of financial constraints, additional recruitment now is not feasible. Some reliable personnel need to be trained on multiskills; surveys, adjudication, CRS and activity planning and coordination so they can easily be pulled out to critical assignment needs. The structure of the implementing organization need some review. In this case, the problem can be greatly helped with the cooptation of the survey</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
	<p>coordination with CRS, the local government representation and the adjudicator.</p> <ul style="list-style-type: none"> <li>- The correct process of SNS activity was not usually followed by the contractor. The limited execution of contract surveys by the two early cadastral contractors did not have some of the adjudicators working alongside their teams. Mobilizing adjudicators was delayed. The situation was aggravated when the cadastral contractors fielded additional teams to conduct SNS and field lot surveys. This will be a critical case and a major area of concern once all the module projects and the municipality of Sta. Fe starts its full operations soon.</li> </ul> <p>3. Need for further review of the cadastral survey modules to attain greater efficiency in the coordination and planning of project activities and achieve efficiencies of scale operations.</p> <ul style="list-style-type: none"> <li>- Very small modules inhibits efficiency in project administration and coordination. The size of the contract may be dependent on the capability of the contracting companies. Inefficiency in the technical conformities of project controls inter-project boundaries and political boundaries can be avoided.</li> </ul>	<p>technical capability and expertise of some units in the Surveys Division of DENR region.</p> <ul style="list-style-type: none"> <li>- Cadastral project identification has to pass the basic criteria on: <ol style="list-style-type: none"> <li>1. costs</li> <li>2. priority need for land titling which may include social, economic and political imperatives</li> <li>3. efficiency of implementation</li> <li>4. administrative capacity available in the administrative agency</li> </ol> </li> <li>- Policy be formulated to cover project identification, size and classification of contractors capabilities.</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
Improvement of project management capability down to field project levels.	<ol style="list-style-type: none"> <li>1. Lapses in LAMP project implementation are partly due to deficiencies in project management capability. <ul style="list-style-type: none"> <li>- The Libertad survey project took a year or more to finish. Both technical skills, supervision and management were known to be deficient.</li> </ul> </li> <li>2. Inadequacies in the formulation of project plans contributed to failures in achieving target objectives. <ul style="list-style-type: none"> <li>- Activity outputs have significant gaps relative to target objectives</li> <li>- Achievement of Phase I objectives as a learning and innovation phase was greatly affected by inappropriately planned activities and targets.</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>- Provide intensive training on Project Planning and Operations Management with critical focus on: <ol style="list-style-type: none"> <li>1. Preparation of project feasibility studies</li> <li>2. Preparation of project budgets and resource allocation plans</li> <li>3. Performance evaluation on Projects/Activities/Personnel</li> <li>4. Management by objectives</li> <li>5. Administrative communications and complete staff servicing</li> <li>6. Activity scheduling and coordination</li> <li>7. Managing project finances</li> </ol> </li> <li>- Trainees will be Project Managers, Operation Supervisors, Unit heads and level staff.</li> <li>- Reentry plans have to be prepared for execution and evaluation.</li> </ul>
Strengthening of project reporting and PIO-1 monitoring and evaluation	<ol style="list-style-type: none"> <li>1. Need for M and E to be an effective tool for management and decision making. <ul style="list-style-type: none"> <li>- Present M and E is deficient in identifying problems in project/activity administration or supervision in the SAT, surveys, CRS/activity linkages and PIO-</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>- Project heads and supervisors have to be trained in project planning and management.</li> <li>- M and E must have well defined parameter for performance and evaluation.</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
	<p>management.</p> <ul style="list-style-type: none"> <li>- Present M and E fails to completely capture the performance of project/activity and personnel.</li> <li>- Basically quantitative performances are being monitored with qualitative indicators not sufficiently given stress.</li> <li>- Financial costings of activities are not captured in the reports making evaluation of financial efficiency difficult.</li> <li>- Corrective actions made on issues and problems are not documented so that status as well as lessons learned are easily captured and documented.</li> </ul>	<ul style="list-style-type: none"> <li>- Project chiefs and M and E staff must be skilled in process presentation and evaluation.</li> <li>- Conduct project and activity audits.</li> <li>- Project supervisors also need to evaluate individual performance of staff.</li> <li>- Come up with a reporting of key performance indicator addressing both quantity and quality.</li> <li>- Design a project/activity reporting system that reflect monthly and running total costs from start of projects to finish. These should capture all cost items used in the project.</li> <li>- Reporting/monitoring should also be capturing information on corrective actions and results.</li> </ul>
<p>Stronger involvement of DENR Regional Management and Surveys Division in planning for LAMP II.</p>	<ol style="list-style-type: none"> <li>1. Initial developments for LAMP II piloting in different regions require the critical considerations of the regional environment and the administrative mechanism in place for surveys and land titling. Realistic regional workload inventories and classification (old approved cadastral/surveys need to be initially evaluated by the region) plus the status of regional capability have to be factored in with</li> </ol>	<ul style="list-style-type: none"> <li>- Preparation for LAMP II by the regions may need initially the following: <ol style="list-style-type: none"> <li>1. preparation and submittal of comprehensive status reports of cadastral surveys by municipality</li> <li>2. comprehensive report of the extent of land titling in the region</li> </ol> </li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
	the Regional LAMP Plan on surveys and titling.	<p>by province and on municipality</p> <ol style="list-style-type: none"> <li>3. initial evaluation of the quality of old surveys by municipality</li> <li>4. initial evaluation of the extent of geodetic control network available by province and their usefulness for survey.</li> </ol> <ul style="list-style-type: none"> <li>- Functional analysis and training needs assessment by region needs to be conducted now. Focus on GEs, Land Inspectors/Investigators, LMOs, unit supervisors and support technical personnel.</li> </ul>
Streamlining of the processing and approval of survey maps and plans.	<ol style="list-style-type: none"> <li>1. Will survey approval assure quality survey outputs (technical descriptions and maps)?</li> <li>2. Can the processing period for surveys be reduced and still assure quality surveys? <ul style="list-style-type: none"> <li>- Past and present practices throughout the country do verification of survey outputs and maps in the office. Presumption is that data generation of surveys and the final preparation of survey returns were done properly and technically conforming to regulations.</li> <li>- Findings on erroneous or defective surveys show that defects were field generated so that office verification is not an effective process to assure quality surveys.</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>- Strengthen the conduct of SNS and data gathering to assure quality output. The processes shall at all time be with the assistance of an adjudicator, the local barangay officials, CRS and all the adjoining landowners of the particular lot. Documentation of SNS findings should be reflected in the standard format. Train well SNS operatives and adjudicators.</li> <li>- Conduct sporadic quality field check on SNS output.</li> <li>- Field verifier must be highly trained in various aspects of survey</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
		<p>operations and in the monitoring and evaluation of field surveying activities.</p> <ul style="list-style-type: none"> <li>- Deficiencies in the process have to be reported immediately and corrective measures made.</li> <li>- Countercheck inspection by the DENR/CENRO technical personnel for purposes of payment must be strengthened.</li> </ul>
	<p>In the long run sporadic surveys submitted for approval for derivative registration using subdivisions/consolidation survey may be approved promptly. Survey for original registration may need field verification using an SNS process once an application for titling is made. The SNS shall be made part of the support documents.</p>	<ul style="list-style-type: none"> <li>- Close coordination between PIO and the Survey Division in the inspection and supervision of cadastral projects is required.</li> <li>- Consider the submittal of survey returns as a formal turnover of survey record to the government. After verifying the completeness of the record and the respective field verification positive report, the survey can be approved in a few days instead of the current practice of month or year to approve.</li> <li>- For projects executed by administration, processing of data may be centralized especially with the assistance of computers. Preparation of map will also be centralized. This presumes that field</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
		<p>activities were field verified. Immediate approvals of the survey project follows in a few days once the entire process are executed faithfully.</p>
<p>Training of cadastral contractor on LAMP Survey Project Administration and Execution.</p>	<ol style="list-style-type: none"> <li>1. Capability of cadastral contractors to manage the execution of LAMP survey projects need to be reviewed. <ul style="list-style-type: none"> <li>- The LAMP implementation office needs to clarify with the survey contractor critical issues in the conduct of: <ol style="list-style-type: none"> <li>a. project control</li> <li>b. survey and notification sheets</li> <li>c. role of cadastral surveyors in systematic</li> <li>d. adjudication</li> <li>e. coordination linkage of activities with DENR/PIO.</li> <li>f. Project certification process prior to recommendation for payment</li> <li>g. Conduct of SNS, adjudication and field verification</li> <li>h. World Bank requirements</li> <li>i. Technical requirements on new surveying processes.</li> <li>j. Role of local government</li> </ol> </li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>- Conduct a training workshop of at least 2 days for cadastral project chiefs and GEs before they are allowed to execute cadastral surveys.</li> <li>- Make sure that the implementation officers who are involved in SNS, adjudication and field verification as well as unit supervisors will interact actively with the cadastral contractors.</li> <li>- The PIO must have trained personnel who can effectively evaluate the project management plan submitted by cadastral contractors to assess their implementability and for PIO-1 to plan correspondingly its support services in the supervision of the project execution.</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
	<p>2. Present approach of orienting winning cadastral contractors is insufficient exposure to the range of requirements in the conduct of cadastral survey projects.</p>	
<p>Developing the surveying professional capability and upgrading of technology applications of private surveyors to best standards.</p>	<p>1. Raising the professional competency of the private sector to conduct LAMP cadastral surveys.</p> <ul style="list-style-type: none"> <li>- Past cadastral surveying outputs have shown a significant extent of deficiencies as well as totally defective projects.</li> <li>- Generally, big contractors from Manila have access to the use of GPS and total stations in Region VIII out of 68 members of the Geodetic Engineering Association of which about 3/5 are private practitioners only one is known to have a total station and no GPS at all.</li> <li>- The private practitioners of Region VIII have no competent skills to use total stations and GPS. This is also true with the processing of data for the production of technical descriptions and maps.</li> <li>- The GE curriculum is deficient in the advanced GE training for competency on surveying, very much far behind in the standard best international practice.</li> <li>- Technical specifications are sometimes not correctly followed.</li> </ul>	<ul style="list-style-type: none"> <li>- Review and overhaul the academic curriculum of the GE course by minimizing/abolition of useless subjects, strengthening the fundamental tool subjects in Mathematics and Physical Sciences and the introduction of higher geodesy applied studies, geomatics/land administration systems, use of advanced instruments like total stations/GPS, computer assisted processing and transformation of survey data into technical records and maps and systematic land information systems.</li> <li>- Introduction of advanced surveying technologies, land information systems, geomatics etc, into the continuing education program for GE professionals.</li> <li>- Review for amendment allowing Civil Engineers as Jr. GEs to practice legally as GEs.</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
	<ul style="list-style-type: none"> <li>- A very recent law mandating Civil Engineering graduates with about 15 units of surveying to practice as Geodetic Engineers instead of as only Jr. Geodetic Engineers.</li> </ul>	
<p>Cooptation of Technical Units of DENR (Surveys Division and Land Mgt. Division) into the systematic registration activities especially for Free Patent Titling and Registration.</p>	<ol style="list-style-type: none"> <li>1. Need to include the Surveys Division and the Land Mgt. Division and the LMO of CENRO/PENRO in systematic adjudication especially Free Patent Planning and operations. <ul style="list-style-type: none"> <li>- Initially these land officers had little involvement resulting in anemic support and even hidden resentment. Later though they were involved in consultation meetings and their experiences and knowledge in Free Patent were helpful. In full operations for Free Patent titling these officers can be very useful with their experiences channelled properly and their skills further developed.</li> <li>- Full utilization of the Surveys Division in systematic registration is one expected reality. Their role becomes more significant under existing conditions of inability to hire new technical people. With further training and orientations on the LAMP developed systems and procedures they can contribute much to the program.</li> </ul> </li> </ol>	<p>With an administrative directive firm up the organizational linkage between PIO-1 and the surveys division in support of systematic titling. The technical personnel of surveys division may be assigned to LAMP PIO-1 as support verifiers and survey supervisors with the contract cadastral projects. Also the LMO, land examiners and land mgt. officers may be officially assigned to provide support for free patent titling. (Presently these officers are being consulted and do sporadic support activity.)</p>
<p>Integration of SNS operations</p>	<ol style="list-style-type: none"> <li>1. Maximize the usefulness of the SNS activity to</li> </ol>	<ul style="list-style-type: none"> <li>- Unify the inspection and</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
<p>with the field inspection and investigation for reports required in free patent applications.</p>	<p>generate information required for the free patent applications and processing of patents.</p> <ul style="list-style-type: none"> <li>- Current practice in accepting Free Patent Application requires the data gathering for the support document in Free Patent Application which is the Field Inspection Report prepared by the Public Land Inspector. A final Investigation Report is subsequently prepared also. Both requires field work but the data required can be gathered during the SNS where the landowners of lots and the adjoining lots are right there on the field. Two field works can be saved and landowners don't have to be in the field at least 3 times.</li> </ul>	<p>investigation report as a support document for Free Patent Applications.</p> <ul style="list-style-type: none"> <li>- Reformat the SNS activity so that all critical information needed for the Free Patent applications are captured in the report.</li> </ul>
<p>Strengthening of base camps as frontline service provider in systematic titling and registration.</p>	<ol style="list-style-type: none"> <li>1. Need to develop Base Camps as frontline service providers in systematic land registration. <ul style="list-style-type: none"> <li>- Landowners/stakeholders appreciate base camps as accessible and common to service friendly.</li> <li>- Access to base camps are less costly in terms of efforts, expense and psychological proximity;</li> <li>- Some base camps are in disarray. Procurement of needed supplies and equipments are often delayed. Personnel composition and organization needs improvement to respond properly to the</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>- Base camp management has to be developed and strengthened. Managers need training.</li> <li>- Its activities should not be limited to adjudication instead it should take some lead in the execution of cadastral surveying operations as frontline administrators of the cadastral projects.</li> <li>- Some GEs and technical people be directly supervised by the Base Camp Managers.</li> <li>- PIO-1, DENR surveyors and GEs as overall technical supervisors should</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
	<p>demands of the service. Payment of basic obligations such as office rentals, light and water are late, with some lessors threatening to stop the deals. The management of base camps needs improvement.</p> <ul style="list-style-type: none"> <li>- Since survey outputs and their quality are critical to facilitate adjudication and land titling/registration, the base camps need greater control in the execution of survey projects.</li> </ul> <p>2. Need for strong support to SAT Activities</p> <ul style="list-style-type: none"> <li>- Appropriate provision of logistical and administrative support.</li> <li>- Unified supervision of activities in coordination with local officials.</li> <li>- Strong operations planning for a realistic conformity of expected outputs to the capacity to deliver outputs.</li> <li>- Availability of land records for integration into the operations of systematic adjudication activities.</li> <li>- Efficient supplies allocation system.</li> <li>- For future, under LAMP II, number of SAT offices be appropriately supervised to allow for efficiency of control in base camp operations.</li> </ul>	<p>coordinate closely with Base Camps in operations planning and management of survey projects.</p> <ul style="list-style-type: none"> <li>- CRS as support task should be properly controlled by the Base Camp Managers.</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
<p>Focus on Free Patent Titling while working for a legal framework for the titling of non-agricultural lands and the needed amendments to the Free Patent Law.</p>	<ul style="list-style-type: none"> <li>- Sustainability of the judicial titling process.</li> <li>- Judicial titling requires multi-agency activities</li> <li>- Judicial process appears incapable of pressure to accomplish speedily. Strict adherence to the procedural requirements of law result in delays.</li> <li>- Cost expenditures in judicial process is relatively high.</li> <li>- Orientation and training of judges and staff for the judicial process is a costly activity on a national scale in preparation for LAMP-II.</li> <li>- For Free Patent titling, there is already a pool of deputy public land inspectors, land investigators, land examiners, and land management officers currently distributed in the DENR among CENRO's, PENRO's and Land Management Divisions. Additional training for this pool of experienced and expertise is easier and less costly when they shall be needed for Phase II.</li> </ul>	<ul style="list-style-type: none"> <li>- Secure an authority directive from the DENR secretary organizing a regional task force for Free Patent titling utilizing the services of the available expertise in the CENRO, PENRO's and Land Management Division under the authority jurisdiction of an OSS management and linked to the office of the RED.</li> <li>- Proceed with the efforts to get the needed amendments to the free patent law which may also include coverage over non-agricultural lands in the absence of a new law for administrative titling over non-agricultural lands.</li> </ul>
<p>Completion of the integration of Land Records with the CIM/Database.</p>	<ul style="list-style-type: none"> <li>- The OSS to be functionally meaningful needs to integrate all land records into a system that provide for completeness of information, easy access and retrieval of records to service the client public. Capturing the information from existing land records is a tremendous job.</li> <li>- Capturing the correct data from existing</li> </ul>	<ul style="list-style-type: none"> <li>- The OSS initiate the formation of a task force to capture copies of land documents, validate them and integrate into the CIM/database. It shall also initiate the research and completion of the missing records. Rehabilitation of deteriorating records has to be done early.</li> </ul>

Strategic Concerns	Issues & Circumstances	Action Recommendation
	<p>records and validating them needs the experience, patience and tenacity of the personnel involve before they are transported to electronic data.</p> <ul style="list-style-type: none"> <li>- Missing maps, plans and technical description, etc. need to be researched to complete the land records. No attempt has been done before.</li> </ul>	
<p>Review and strengthen OSS functional organization and objectives.</p>	<ol style="list-style-type: none"> <li>1. Need for OSS planning to consider the extent of first time registration vis-à-vis subsequent or derivative registration. <ul style="list-style-type: none"> <li>- As first time registration advances, workload inventories are reduced and subsequent sporadic registration due to transfers of rights, subdivisions/consolidations are increased. Work types in OSS gradually changes affecting patterns of operations. Planning shall incorporate changing priorities in operations and allocation of resources for adjudication, surveying and mapping. Land information demand and land transactions, transfers/encumbrances are expected to expand impacting on the capacity of OSS to deliver services.</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>- Develop transition strategies of service from support to first time registration towards information services and derivative sporadic registration services.</li> <li>- Further develop the records management capability services.</li> </ul>