

Asset Management in the Province of Aceh, Indonesia

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Key words: Asset Management (importance, components, model, gaps, needs)

SUMMARY

Asset Management in Aceh is mainly a paper based system relating to national laws and regulations. In a so-called *Needs Assessment* various gaps between the situation today and a modern computerized Asset Management System were discovered. The gaps are mainly lying in the fields of data completeness, -currency, -availability, -maintenance, business processes, government procedures, staff (capacity and skills), lack of commitment from the decision makers, lack of organisation, unclear responsibilities and technical infrastructure.

The planned future Asset Management System (AMS) is defined as an important administrative process, which supports other processes in the government like strategic planning, mapping, operational planning, budgeting, project implementation, documentation and maintenance with basic data. AMS will consist of five different components: Legal Management (Regulatory Framework), Data Management (Inventory, Registration), Business System Management (Processes), Financial Management (Reporting, Valuation) and System Management (Hardware, Software, Networks).

ZUSAMMENFASSUNG

Asset Management in Aceh ist hauptsächlich ein Dokumentationssystem auf Papier in Übereinstimmung mit nationalen Gesetzen und Durchführungsbestimmungen. In einer durchgeführten Bedarfsanalyse konnte eine deutliche Kluft zwischen den Anforderungen eines modernen computerisierten Asset Management Systems und der vorgefundenen Situation vor Ort festgestellt werden. Die Kluft bezieht sich vor allem auf die Datenvollständigkeit, -verfügbarkeit und -aktualität, die Geschäftsprozesse, die administrativen Vorschriften, die Kapazität und den Ausbildungsstand des Fachpersonals, das fehlende Bekenntnis von Entscheidungsträgern, Organisationslücken, unklare Verantwortlichkeiten und die technischen Infrastruktur.

Das nunmehr geplante Asset Management System (AMS) wird definiert als ein wichtiger administrativer Prozess, welcher andere Prozesse in der Regierung, wie z.B. die strategische Planung, die operative Planung, die Budgetierung, die Projektdurchführung, die Dokumentation, die Instandhaltung u.a.m. mit wichtigen Basisdaten beliefert. AMS wird dabei in 5 Komponenten aufgeteilt: Rechtsrahmen, Datenmanagement (Bestandsverzeichnis), Geschäftsprozesse, Finanzmanagement (Berichtswesen, Bewertung) und Systemmanagement (Hardware, Software, Netze).

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1. INTRODUCTION

After the tsunami in December 2004 various national and international activities, programs and projects were set up for the Provincial and District Governments of Aceh. The most important ones in relation to “*Asset Management*” were:

- National Rehabilitation and Reconstruction Board - BRR (UNDP)
(*e.g. software development*)
- Aceh Local Governance Program - ALGAP II (GTZ)
(*e.g. capacity building*)
- Asset Mapping Assistance Project - AMAP (AusAID/GTZ)
(*e.g. surveying*)
- Local Governance Support Program - LGSP (USAID)
(*e.g. management systems*)
- Infrastructure Reconstruction Enabling Program - IREP (World Bank)
(*e.g. program management*)
- Aceh Government Transformation Program - AGTP (UNDP)
(*e.g. capacity building*)

All these activities will be ended until the end of this year. Now there is the question whether the local government on its different levels is well prepared to run the business of Asset Management independently by itself.

Chapter 2 generally describes the importance of Asset Management for government finance and development.

Chapter 3 divides Asset Management into 5 components:

- Legal Management (Legal and Regulatory Framework)
- Data Management (Inventory, Registration)
- Business System Management (Processes)
- Financial Management (Reporting, Valuation)
- System Management (Hardware, Software, Networks)

Chapter 4 designs an Asset Management model for Aceh showing Asset Management as an administrative process in connection to other processes in the local government.

Chapter 5 defines the desirable future state in the different fields of Asset Management and describes the corresponding current situation found in different jurisdictions of the local government (gaps analysis).

Chapter 6 describes a planned Asset Management Project resulting from the gaps analysis. The project goals, questions to be answered and necessary activities are listed.

2. IMPORTANCE OF ASSET MANAGEMENT

... for Government Finance and Development

For strategic, operational and financial reasons, asset management is an important area of decision making for local governments.

New demands for better service provision, trends towards decentralized systems of public sector management in emerging economies, potential synergies and changing roles in the public and private sectors create the need for better management and accountability of government resources.

Open and effective management and reporting of public property resources is an important aspect of public trust. There is a new and heightened interest in the strategic role that asset management can have for governments and their residents. As the processes of decentralization, urbanization and economic development in the cities continue in developing economies, there is growing need to provide better living and working conditions for rapidly growing populations through better service provision and improved access to amenities.

A review of successful cases of government management indicates that effective use of the asset base is an important factor contributing to increases in government revenues and successful performance.

Asset management is the process of inventory, valuation, use, strategic portfolio reviews, reporting and auditing of public assets and, in some cases, state properties as part of the decision making process of local government.

The main benefits of an effective asset management system are to help local governments:

- Provide local residents with improved services based on public asset use (such as infrastructure, water systems, schools, hospitals, parking, etc.)
- Increase revenues and/or decrease costs
- Improve the overall credit rating for the local government
- Attract more domestic and foreign investors

- Improve land valuation (for example, through relocation of public properties, sale and leases, and improvements in infrastructure such as better roads) that make land assets attractive for productive and real estate purposes
- Enhance the environment and improve quality of life

3. COMPONENTS OF AN ASSET MANAGEMENT SYSTEM

3.1 Legal Management

National and local governments need a common legal and regulatory framework that clearly establishes the authority of local government over its assets.

Although laws may have been published, there can be, in many instances, areas of contradiction and lack of clarity that potentially discourage local governments in their asset decision making initiatives.

Like any other system of government, the asset management functions have to be understood in the context of the social and political environment. The laws and regulations will, to some extent, reflect these realities.

The legal and administrative framework consists of the applicable laws and regulations that affect the ownership and management of public assets. The legal systems can define property ownership including rights and responsibilities, sale and registration differently. The laws and norms guide the management, use, acquisition and disposition of public property. They are important in determining who might be the ultimate beneficiary of the services and financial returns that government assets can provide. The laws and regulations normally establish the right and obligations to register properties, methods of valuation for transaction purposes (buying, selling, leasing, and concessions).

3.2 Data Management (Inventory, Registration)

The cornerstone of asset management is a well functioning inventory system.

The system should contain the information to be able to assess quickly what the government owns, the type of properties and their location, as well as an updated value indicating the methodology used to assess the value. A first step is for government officials to review whether there is an inventory of their asset base and a transparent system for data retrieval.

Regarding the asset reports the concern is how accurate the information is, how functional the format, how costly the system in comparative terms, and how accessible is the data base.

3.3 Business System Management

This aspect of asset management has to respond well to the local strength and the administrative processes of the local government.

Local governments need well established offices and personnel in charge of asset management. Their experience should contribute to improvement of the system inputs.

Since asset management is both a financial management as well as a local physical planning function, an asset management unit, integrating the contributions of different relevant departments, helps achieve the objectives of developing an improved and coordinated asset management system. Attracting highly qualified and motivated professionals to this important function will depend on the financial and institutional strength of the local government.

3.4 Financial Management (Reporting, Valuation / Appraisal)

Financial aspects of asset management include accounting and auditing, valuation methods, and analysis of options.

The objective of financial management is to ensure that efficiency gains of asset management should lead to larger social and economic gains for the municipal population. The invested resources and recurrent expenditures should generate real and positive economic benefits or be clearly justified by social benefits.

Reporting: Financial reporting is one of the strategic building blocks of local government capacity that can help attract investors, lenders and to explore real investment options strategically. A systematic review of the accounting standards and financial reports can provide useful feedback for improvement or strengthening of the system. The accounting standards and practice determine when and how transactions and economic events are reflected in the financial statements.

Valuation / Appraisal: The purpose of the valuation and appraisal should be to give both the local government as well as citizens of the jurisdiction and beyond, access to valuable information for the purposes of planning, approval, negotiation, execution and monitoring of performance for municipal governments of the use of assets. The valuation methods should link services provided with net revenues or costs associated with the management of particular public assets. To make the valuation of assets more credible, the methods of valuation and assumptions used (for example applicable comparative and weighted prices in adjacent properties), have to be explicitly incorporated in the inventory of assets reports, especially for the most critical or strategic assets.

3.5 System Management

The data volumes and report generation required to ensure satisfactory performance and compliance with needs mean that it is appropriate to apply a computer based (ICT) solution. As with the other categories, it is important for the systems management strategy to be appropriate to the organization, and different government units will have different levels and capabilities in their technical ICT infrastructure.

When choosing an appropriate software solution, each government should consider its current and future needs. The impact of this can be ameliorated by adopting a modular approach to the systems design.

4. ASSET MANAGEMENT MODEL FOR ACEH

Public Assets can be considered as anything that is owned by the local government, regardless of source. An asset may be built, purchased or received as a gift.

Asset Management is considered to be an important administrative process in all the business fields of the provincial / district government (infrastructure, health, education etc.). As already said in chapter 2, Asset Management is the process of inventory, valuation, use, strategic portfolio reviews, reporting and auditing of public assets and, in some cases, state properties as part of the decision making process of local government.

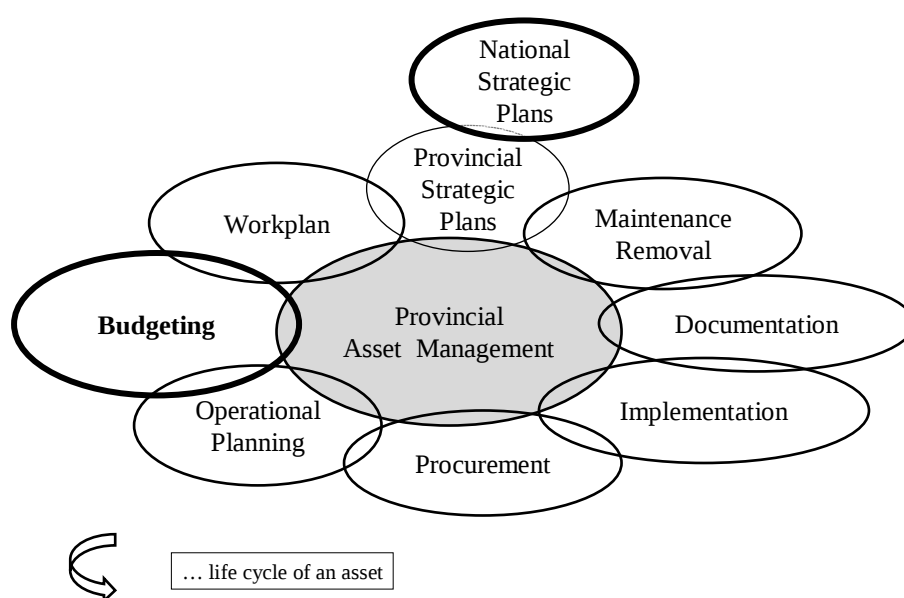


Fig.1: Processes around Asset Management

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Asset Management has a direct link to other administrative processes and supports them with basic data. A short description of the other processes is given in the following table.

Process	Purpose	Responsible	Inputs	Outputs
National Strategic Plans	Vision; 20 years plan	National government	Spatial planning, Demographic data, National resources, National interests, Financial situation	National strategic policy; 20 years plan
Provincial Strategic Plans	5 years plan for local government	Nat. and local planning authorities	20 Years Plan; see above; Assets inventory	Local strategic policies; 5 Years Plan
Proposals; Workplan	1 years plan for local government	Local Planning authorities	5 Years Plan; see above; Assets inventory	Prop. workplan for the next year
Budgeting	Money allocation; budget break-down to lowest levels	Budget Team and Local Parliament	Proposed workplan; local interests; financial situation; Asset inventory	Approved local budget
Operational Planning	Preparing / planning the implementation	Individual agencies	Approved local budget; Workplan; Assets inventory	Operational plan
Procurement	Purchase ; Contracting	Individual agencies	Operational plan; Approved local budget	Purchase order
Implementation	Equipment delivery; training; Construction etc.	Individual agencies	Purchase order; Operational plan	Working asset
Documentation	Registration of assets;	Individual agencies	Asset documents	Updated asset inventory
Maintenance; Removal	Routine maintenance; Removal	Individual agencies	Physical asset; Operational plan for maintenance	Working or retired asset ; Updated asset inventory

Table 1: Processes around Asset Management

5. GAPS ANALYSIS

During a so-called “needs assessment” in seven different jurisdictions of the local government it was found out that Asset Management (AM) is mainly understood as “Listing the Asset Inventory” due to the existing regulations in a paper based system.

In fact Asset Management is/should be more than just “listing” (see: chapters 3 and 4). The important budgeting process, for example, will not work well when the basic data are incomplete, not up-to-date or not presented in an adequate form due to its specific needs. In comparison to a modern computerized Asset Management System (AMS) it has to be realized that the inventory data in Aceh are mostly in a poor condition, the processes linked to AM (see Fig.1) are not well supported, the IT - equipment (hardware, software, networks) is still on a low level and the AM-staff is either not enough or not sufficiently skilled.

The following table faces

- the “Future State” *(as a modern AMS should work),*
- the “Desired State” *(as the actual short term goal of local government)*
- the “Current Situation” *(as defined by interviewed government officials)*

in the different fields of activities of Asset Management..

The remarks under “Current Situation” reflect the general impression, although the state of development was very different in the investigated seven districts.

Legal Management			
Field of Activity	Future State	Desired State	Current Situation
Laws; Rules; Regulations	Compliance with all regulations; Clear, consistent AM-regulations in all functional government areas	Compliance with all regulations	Compliance difficult due to lack of capacity; regulations can be inconsistent and contradictory
Asset Ownership	Clarified ownership for all assets	As for future state	Mostly unclear situation of asset ownership status and conditions

Table 2.1

Data Management			
Field of Activity	Future State	Desired State	Current Situation
Data - availability - up-to-dateness - reliability - completeness	Available, up-to-date data, reliable and complete inventory data in accordance with all regulations	Available, up-to-date data, reliable and complete inventory data in accordance with existing regulations	Low completeness; data collection just started ; constraints in data sets; no data integration
Graphical data	Graphical data integrated in AM; Direct link map / inventory	Geographic locations of all fixed assets; Spatial data available for spatial planning and budgeting	Mapping data not available; Stand alone GIS-systems; Poor data integration

Table 2.2

Business System Management			
Field of Activity	Future State	Desired State	Current Situation
Data flow	Effective automatic data support to processes around AM; Clearly defined interfaces	Effective data support to processes around AM (Fig.1) due to their specific needs; Clearly defined interfaces	No defined interfaces; Only complete inventory is transferred to others; No selection / evaluation; No adequate system up to now
Organisation Responsibilities Processes	Clear commitment from decision makers for AM; .. organisation; .. responsibilities; .. processes	As for future state	Deficits in info-flow; own assets not well known; ponderous processes; organisation under change; no central IT-functions
AM Staff	Choice of well skilled staff members for AM	Enough and well skilled staff members for AM	Serious staff problems (capacity and skills)

Table 2.3

Financial Management			
Field of Activity	Future State	Desired State	Current Situation
Appraisal	Clear appraisal procedures	As for future state	Appraisal done by independent consultants; no own knowledge

Table 2.4

System Management			
Field of Activity	Future State	Desired State	Current Situation
ICT Support	Computerized AM-System; effective and standardized software; IT-network for all users	As for future state	AM mostly paper based; No computer systems yet; Mostly poor IT infrastructure

Table 2.5

6. ASSET MANAGEMENT PROJECT

The needs assessment and the resulting gaps analysis show very clearly to problems which are to be solved.

The gaps are mainly lying in the fields of data completeness, -currency, -availability, -maintenance, business processes, government procedures, staff (capacity and skills), lack of commitment from the decision makers, lack of organisation, unclear responsibilities and technical infrastructure.

Now it is considered to implement an Asset Management System (AMS) in a project with two phases:

- Phase 1: AMS - Pilot project
Implementing an operational Asset Management System in one chosen district with a complete set of real data.
- Phase 2: Future AMS - Project
Implementing an Asset Management System in the provincial government, all 23 districts of the province on the experiences of the pilot project

6.1 Pilot Project Goals

The local government on its different levels in the pilot area should be able to run the AM business independently and under its normal annual budget.

The government staff should identify itself with AM; they should consider AM as their own duty / as their daily business and be motivated to deliver the best possible services to the community. Therefore the government staff should be involved in the project from the very beginning.

The gaps, as described in chapter 5, should be filled to the highest possible extent.

At the end there should be a working Asset Management System in the jurisdiction of the pilot area with a complete set of real data.

The future AMS-project for the other 22 districts of the province should be defined in detail.

6.2 Pilot Project Activities

In the following sub-chapters the questions to be answered as well as the necessary activities during the pilot project are listed in the order as defined in chapter 3.

6.2.1 Legal Management

Questions to be answered: Is the existing framework clear in giving authority to local government over local government assets? Is there a coherent, national and local legal and administrative framework that enables local government asset management? What specific legal provisions allow local government to: Issue land management and zoning regulations? Register ownership? Acquisition and disposal? Determine valuation and negotiate price for buying and selling? Use the asset? Lease, contract? Are there other conditions and regulations (environment, national priorities)? Does the local government have the power and resources to enforce planning regulations? Does the legislation establish clearly the methods of valuation and payment for eminent domain expropriation of properties? Are there required specialized skills on hand or on call?

Necessary activities: Gaps analysis between current legal requirements and the realistic needs of the local government; process recommendation for drafting legal and regulatory provision, procedures and guidelines; liaison with regulatory body; engagement with the relevant state bodies where appropriate for activities with a broader geographical scope than Aceh Province.

6.2.2 Data Management (Inventory, Registration)

Questions to be answered: Is there a clear inventory policy and practice that is clearly recognized? Where is this information located and who has access? Who is in charge? Is there a

clear and consistent classification of fixed assets? Is this part of a strategic asset management system? Does it distinguish special uses? How frequently is the entire system or data on particular assets used? What registry indicates what the municipal government owns? What is the individual and total valuation of assets? What national public assets are in the custody of local government authorities? What functions do these assets perform? What are the governing agreements? How is the registry of local government assets organized?

Necessary activities: Analyzing the existing data (quality, completeness, up-to-dateness, formats, transformation, availability, owners, users); selecting, structuring and storing all pilot data.

6.2.3 Business System Management

Questions to be answered: Is asset management a well defined function in the local government? Does it have a clear link and reporting to the strategic levels of management? Does it have appropriate human and technological resources? Is the office in charge visible enough internally as well as externally? Are the administrative processes well defined? Are the responsibilities for the different fields of work clearly defined? What data are coming from where / going to where? How are the links to other processes (see: Fig.1) defined in detail? What procedures should be automated?

Necessary activities: Describing the data flow (flowcharts); describing the needs for software improvements; describing possible improvements in the workflow; describing operational rules; clarifying different roles / responsibilities (e.g. assets owners); establishing an Asset Management Manual.

6.2.4 Financial Management (Reporting, Valuation/Appraisal)

Questions to be answered: Is the current practice of financial management conducive to higher efficiency in asset management? What is the current system of accounting? What are the accounting methods? Do they correspond to national regulations, international practice and recommendations? Is the financial asset management and reporting system audited and credible? Is financial reporting compatible with the inventory system and methods of valuation? Are there links and references from one to the other reports provided? Is the financial management and reporting system transparent, clear and timely? Does financial analysis assist in the evaluation of options? What is the valuation method used for the assets? When, how and how often are the assets assessed? Who controls the quality of the information? Have recent transactions confirmed the valuation? How much do government assets cost to maintain, improve, use? Are there alternative uses of the assets that would improve the service provision and the net worth of the local government? Has this aspect been included in regular portfolio reviews?

Necessary activities: Analyzing the current state of accounting; analyzing the current state of reporting; describing and implementing possible improvements

6.2.5 System Management

Questions to be answered: Is the ICT function a well managed component of local government? Does ICT have clear reporting to the strategic levels of management? Does it have appropriate human and technological resources? What is the capacity of the personnel to manage modern software stacks? Are the administrative processes well defined? What change and configuration management procedures are in place? Are the roles and responsibilities within the ICT group clearly defined? Is there a common role-based security model? What are server and network capacity? Are all government agencies connected to the government network?

Necessary activities: Evaluating and implementing existing software systems; improving and extending the software due to the identified needs; evaluating and improving the technical infrastructure (hardware, networks); defining the ICT-standards and management procedures; defining the basics for data capturing, -selecting, -maintaining, -storing, -analyzing and -presenting; defining the rights and duties of the different users (reading, updating, changing); defining the basics for data protection.

7. OUTLOOK

The time schedule for this proposed project is not yet fixed but there are good chances that it will be realized soon.

BIOGRAPHICAL NOTES

Studies of Geodesy at Technical University, Berlin

Professional stations:

- German Development Institute, Berlin
- CERN, European Centre of Nuclear Research, Geneva, Switzerland
- UNESCO, Yogyakarta, Indonesia
- Technical University, Berlin
- German Society for Retreatment of Nuclear Waste, Hannover
- Stadtwerke Düsseldorf AG, Düsseldorf
- IBU Consult Ltd., Berlin

Academic degrees:

- Dr.-Ing. (TU Berlin)
- Prof.h.c. (Siberian State Academy of Geodesy, Novosibirsk, Russia)

Publications:

- Various publications in the fields of geodetic networks and information systems

Actual activities:

- Lecturing (Novosibirsk, Russia)
- Consulting (e.g. Iran, Russia, Namibia, Albania, Indonesia)

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