

The Diagnostic Tool Explained

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Overview

- The Diagnostic Tool
- Applying the tool – Parts 1&2
- Applying the tool – Part 3
- Interpreting results

Why a Diagnostic Tool?

- Asset Management objectives
 - To meet required level of service in most cost-effective manner for the present and future
- Diagnostic Tool objectives
 - To introduce the concept of asset management to local governments
 - To provide a simple means to assess awareness
 - To assist local governments with developing actions to improve local asset management
 - To provided the basis for developing AMAPS – Asset Management Action Plans

The Diagnostic Tool - Overview

- Based on
 - ISO 55000 Asset Management standard
 - International Infrastructure Management Manual 2015
 - Government of New Zealand Treasury Department AM Maturity Assessment
- Can be done through formal assessment
- Can be done as self-assessment prior to visit or as an asset management 'health check'
- Three parts

Part 1 – Self Assessment

Part 1 - Asset Management Self Assessment: Cover Sheet

Instructions

Please complete the blank sections on this form. See the next tab for an example.

Country:

Local Government Municipality/Jurisdiction:

Daytime Population:

Nighttime Population:

Person Submitting Assessment:

Title:

E-mail:

Telephone:

Date completed:

Asset Management Assessment Participants

List all individuals involved in asset management

Name	Title	Email/contact

Comments

Part 1 - Asset Management Self-Assessment: Overall context

Example

Instructions

Please answer in the context of needs, challenges and change pressures that impact or involve physical infrastructure and real property used by the local government to serve its community. Do not be concerned if them as they will be discussed during the on-site interview.

Questions

1. Please list three major local government economic, environmental, or social issues that have an impact on the assets you have and how you manage them.
 - Population increase during the day - overcrowding infrastructure can't handle it
 - No place for traders - petty traders
 - Traffic during morning and evenings - three to five years will be untenable
 - Flooding in certain areas can destroy infrastructure & small farms, etc.
2. Briefly describe the principal goals your local government has set for the next five years.
 - Area hospital & local health care centres
 - Relocate services out of city centre, e.g. bus terminal
 - Create two satellite cities
 - Revenue collection improvement

3. Please indicate which of the following main physical assets are in your local government's inventory (Check all that apply. Add comments and list other assets as needed).

Land	Buildings	Equipment (list only critical assets)
<input type="checkbox"/> None	<input type="checkbox"/> None	<input type="checkbox"/> None
<input type="checkbox"/> Surplus/ Available for disposal	<input type="checkbox"/> Cultural (e.g. museums)	<input checked="" type="checkbox"/> Garbage collection trucks
<input type="checkbox"/> Unoccupied/ Available for use	<input checked="" type="checkbox"/> Educational (e.g. schools, universities, libraries)	<input checked="" type="checkbox"/> Cars, lorries (trucks), tractors, graders, caterpillars
<input checked="" type="checkbox"/> Public markets	<input type="checkbox"/> Emergency services (e.g. fire, police) - under Ministry	<input checked="" type="checkbox"/> Computer systems
<input type="checkbox"/> In use	<input checked="" type="checkbox"/> Government offices	<input checked="" type="checkbox"/> Office furniture
<input type="checkbox"/>	<input type="checkbox"/> Housing	<input type="checkbox"/> Safes
<input type="checkbox"/>	<input type="checkbox"/> Judicial (e.g. jails, courts) - under Ministry	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/> Health (e.g. hospitals, clinics)	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/> Public lavatories	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> Recreational facilities	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Example

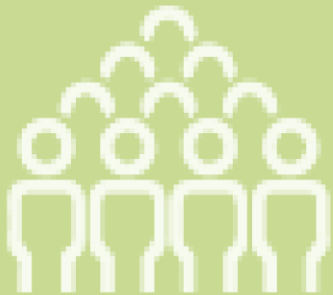
Part 1 - Asset Management Self-Assessment: Overall context

Example

5. How does the performance of your critical assets affect the delivery of services in your local government? (For example, poor roads affect the ability to deliver goods to market and thus have an economic impact.)
 - Can't collect waste - streets dirty, complaints, disease, clogs drainage systems
6. Who manages the different classes of physical assets in your city? Which assets are managed locally and which are managed at a higher level (e.g. district or nationally)?
 - Department of Works (city) → municipal roads
 - Anyland Road Authority (ARA) → major roads
 - Anyland Water and Sewage Company (AWSC) → water supply and sanitation
 - Department of Health → health centres
 - Department of Education → schools
 - Sanitation Department → waste collection & management; cemeteries
 - Department of Finance & Trade → markets
 - Department of Urban Planning → parks
 - Anyland Energy Limited (AEL) → energy
7. Who is involved in the acquisition, operations and maintenance and disposal of assets? Is there a documented decision making process? If so, please provide a copy.
 - Acquisition → Department responsible for asset does the planning and defines requirements, then prioritises and sends budget to Council; Department of Civil Engineering helps with design, once done so; several stages to create budgetary request for new project:
 - (1) Community requests are shared with ward executive committees who will rank projects.
 - (2) Priority projects are shared with Council; management team will scrutinize projects and share with counselors.
 - (3) Budget goes to regional, ministry and assembly levels for approval; project requests are also scrutinized at local level to ensure budgetary means of implementation are present; at the departmental level, user, finance and procurement departments work together in budget and acquisition process.
 - Operation and Maintenance → Individual departments with assistance from Department of Civil Engineering are involved.
 - Disposal → Guided by Finance Act and Procurement Act, approved by Minister; Finance Department prepares value of assets to be disposed; disposal through auction and money goes back to city.
8. Have you had any external review of your asset management practices or plans previously? If so, what was the outcome?
 - International aid project has created revenue collection system for local government
 - No other external support
9. Briefly describe any asset management improvement initiatives currently in progress or already planned for the next year (e.g. implement a GIS, improve inventory data, etc.).
 - We are planning to adopt a Geographic Information System (GIS) which will help map the location of many of our assets. We have already designated a 'GIS focal point' for the Land Department.
10. Please list the major national laws, regulations and policies that govern how you manage your assets. Considerations include: laws, regulations and policies regarding the management of municipal assets; the authority given to the municipality over municipal assets; legal provisions for the municipal authority on land management, acquisition, disposal, lease, contract, etc.; and policies for documented classification of fixed assets, such as a standard inventory policy for the municipalities.
 - Local Government Act, Public Finance and Management Act, Public Procurement and Disposal of Public Assets Act, Land Act
11. Where do you need the most support/help to improve? How can we help you?
 - Develop expertise in managing an asset database, i.e. GIS implementation, inputting data, etc.
 - Capacity building
 - Create awareness around asset maintenance; teach people what the assets are, what's involved in their management, the impact of losing them, etc. → what's the best means to do so? (e.g. 1:1 mentoring, in-person workshops)
 - Help developing local policies

Interview methods

All stakeholders



In groups



Group representatives



Individual participants



Let's Practice – Exercise 1



Local Government officials:

Within your group, prepare for your interview by reviewing the answers provided for Exercise 1 of the case study

Interview team:

Conduct an interview to complete Part 1 of the Diagnostic Tool

Assign a rapporteur
Be prepared to discuss your answers
You have 45 minutes for this exercise

Part 2 – On-site Assessment

- Series of 14 questions
 - Understanding and defining requirements (4 questions)
 - Lifecycle decision making (5 questions)
 - Asset management enablers (5 questions)
- Includes examples of best practices
- Answered by local staff during discussion with assessor and team
- Supported by evidence

Part 2 – On-site Assessment Questions

- Asset inventory data
- Asset performance
- Levels of Service
- Forecasting demand
- Decision making
- Operational planning
- Capital planning
- Financial planning
- Sustainability
- Asset management leadership and teams
- Asset management policy and process
- Asset management information systems
- Service procurement
- Transparency

Part 2 – On site Assessment

Question number and name	Questions	Explanation & examples
Understanding and defining requirements		
1	Asset inventory data	<p>What asset inventory information does the local government collect?</p> <p>How is it classified?</p> <p>How does the local government ensure the information is accurate, consistent and usable?</p> <p>Basic building and land information to be collected:</p> <ul style="list-style-type: none"> • Street address • Cadaster number • Current use(s) • Total floor/land and associated areas • Construction material (e.g. wood, concrete, steel, etc..) • Year of construction • Cost <p>Basic infrastructure information to be collected:</p> <ul style="list-style-type: none"> • Municipality/Region • Type of asset (e.g. water, wastewater, power, etc.) • Identification number • Size/capacity (e.g. diameter, height, volume, flow, etc.) • Total Length (pipes, transmission lines, roads, etc.) • Construction material (e.g. cast iron, steel, wood, etc..) • Year of construction <p>More advanced information:</p> <ul style="list-style-type: none"> • Condition • Current occupancy (i.e. % of usable space occupied) • Inspection date • Construction cost • Annual depreciation amount • Depreciated book value • Combined estimated market value of building & land site • Annual operating and maintenance costs • GIS / digital map of location • Associated assets e.g. manholes, pumping stations, etc.

Part 2 – On site Assessment

Question number and name	Questions	Answers (Assessors to complete this column during site visits)
Understanding and defining requirements		
1	Asset inventory data What asset inventory information does the local government collect? How is it classified? How does the local government ensure the information is accurate, consistent and usable?	<ul style="list-style-type: none"> • New asset management system used to plan maintenance and repair and to prepare reports • Basic data is collected and recorded, including: asset value and depreciated value, year of construction and location. It was previously collected manually and logged into a fixed asset register. • Inventory records asset value, size, construction year and location, but materials (concrete/wood/etc.) and dimensions are not assessed, which is often a consultant's job • Approximately 80% of assets have been entered - done by a consultant but no data quality control or assurance (QC/QA). • Condition - Civil Engineering Department undertakes physical assessment using a template, but it is a personal assessment by engineer (no established metrics) • Engineering department assesses condition of buildings through visual inspection and captures condition in asset management system; building inspectors also inspect private buildings • The purchase cost or cost of construction is used for the asset value, not the market value.

Let's Practice – Exercise 2



Within your group, review the answers provided for Part 2 of the case study.

- What evidence do you want to see to support their answers?

Refer to Chapter 3 - Fig 19 of the Handbook for scores

Assign a rapporteur
Be prepared to discuss your answers
You have 30 minutes for this exercise

Part 3 – Post-visit Evaluation

Basic (Level 1)	The government is aware of the need for asset management but has not been able to do so.
Elementary (Level 2)	The government is aware of the need for asset management and has started to implement some of the activities.
Progressing (Level 3)	The government has implemented all of the asset management activities in at least one of the categories of assets.
Advanced (Level 4)	The government has implemented the asset management activities in all of the categories of assets under its jurisdiction.

Scoring and Interventions

Part 3 - Evaluation

Scoring sheet - assessors to complete after on-site visit

Question number and name		Awareness level			
		Basic	Elementary	Progressing	Advanced
		1	2	3	4
Understanding and defining requirements					
1	Asset inventory data	The local government understands the need to collect asset data and may have started to collect it.	Basic physical information (e.g. location, size, type) is recorded manually or electronically in a spread sheet. The date and time of collection, who it was collected by and how is also recorded. All assets are valued by historical book value.	Information is collected electronically. In addition to physical information, information such as replacement costs, approximate age, asset land value, etc. is also gathered. Assets are classified by groups, classes, service provided, by holder or a combination thereof. The asset inventory should specify where land holds natural resources, monitor condition and design, and implement plans for protection, inspection and maintenance of natural assets.	Complete and accurate data is available for all assets, including new assets. Data is easily accessible to all who require it. There is a high level of confidence in critical asset data. Valuation of all assets is based on market value, in-use value or replacement cost.



Scoring and Interventions

Scoring and evaluation					
Comments	Assessor score	Target score	Reason for scores	Evidence to support score	Recommended interventions

How would you score & why?

Answers (Assessors to complete this column during site visits)

- New asset management system used to plan maintenance and repair and to prepare reports
- Basic data is collected and recorded, including: asset value and depreciated value, year of construction and location. It was previously collected manually and logged into a fixed asset register.
- Inventory records asset value, size, construction year and location, but materials (concrete/wood/etc.) and dimensions are not assessed, which is often a consultant's job
- Approximately 80% of assets have been entered - done by a consultant but no data quality control or assurance (QC/QA).
- Condition - Civil Engineering Department undertakes physical assessment using a template, but it is a personal assessment by engineer (no established metrics)
- Engineering department assesses condition of buildings through visual inspection and captures condition in asset management system; building inspectors also inspect private buildings
- The purchase cost or cost of construction is used for the asset value, not the market value.

Scoring and e

Comments	Assessor score	Target score	Reason for scores

Scoring

Comments	Assessor score	Target score	Reason for scores	Evidence to support score
<p>Approximately 80% of assets have been entered - done by a consultant but no data quality control or assurance (QC/QA).</p> <p>Condition inspections done by engineering but no evidence of data being entered into asset management system at this point.</p> <p>There is motivation to use asset management system.</p>	1.5	3	<p>Basic data is collected and recorded, including asset value and depreciated value, year of construction and location, using the new asset management system.</p> <p>It was previously collected manually and logged into a fixed asset register. The purchase cost or cost of construction is used for the asset value, not the market value.</p> <p>Asset management system has a data structure that allows for asset classification and reporting options.</p>	<p>Review of asset management system and asset registers</p> <p>Inventories provided</p>

Charts

Chart A

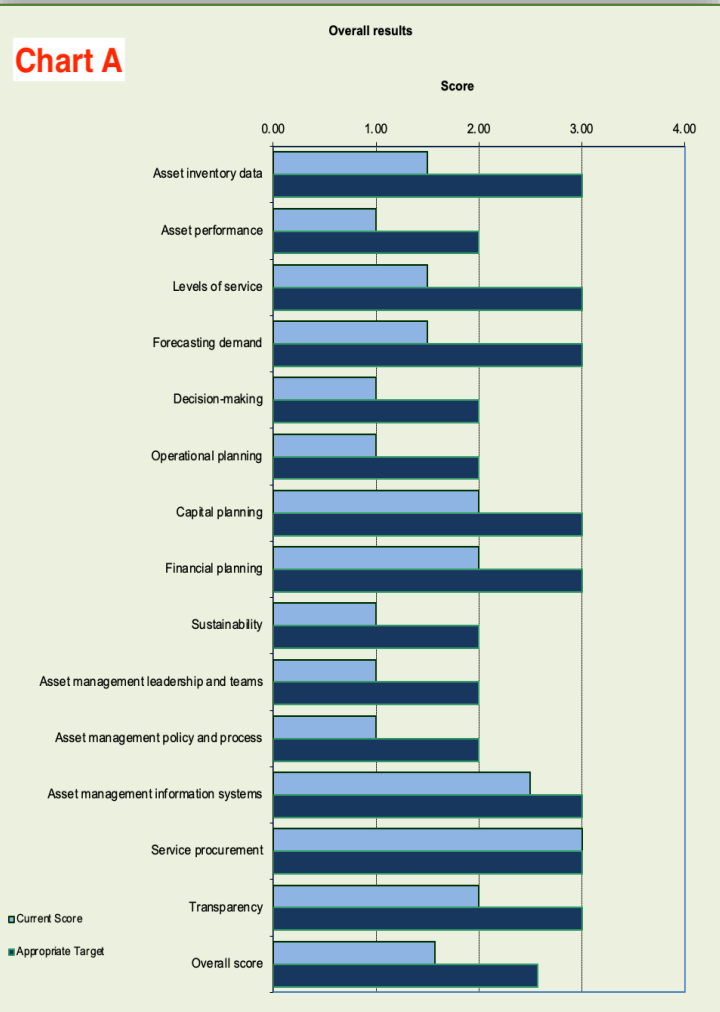


Chart B

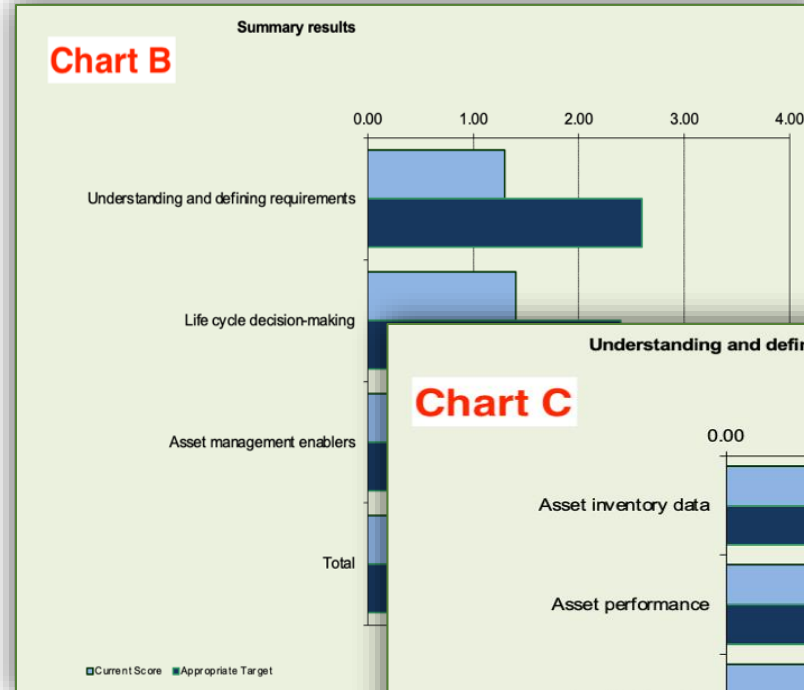
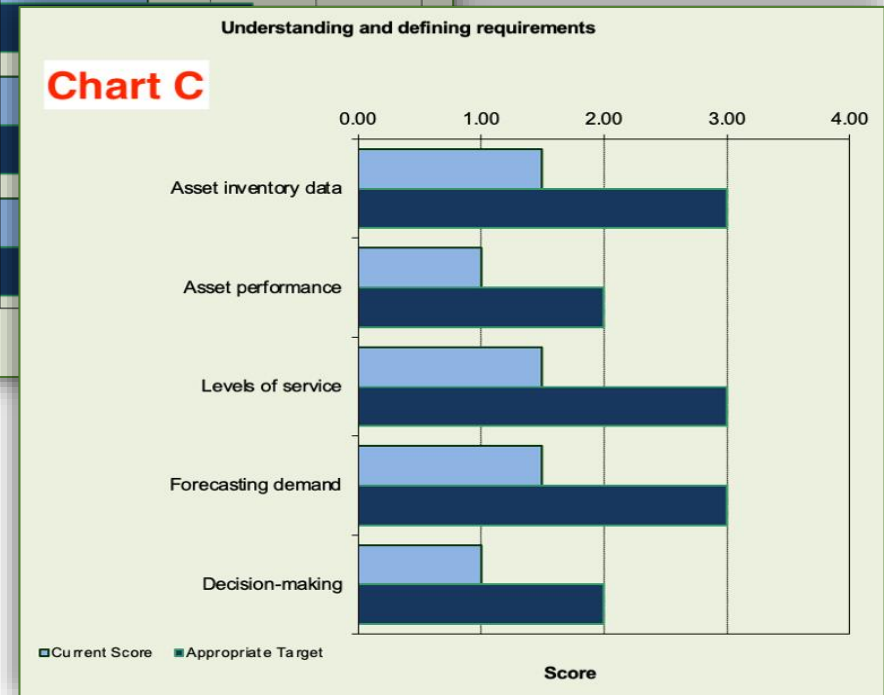
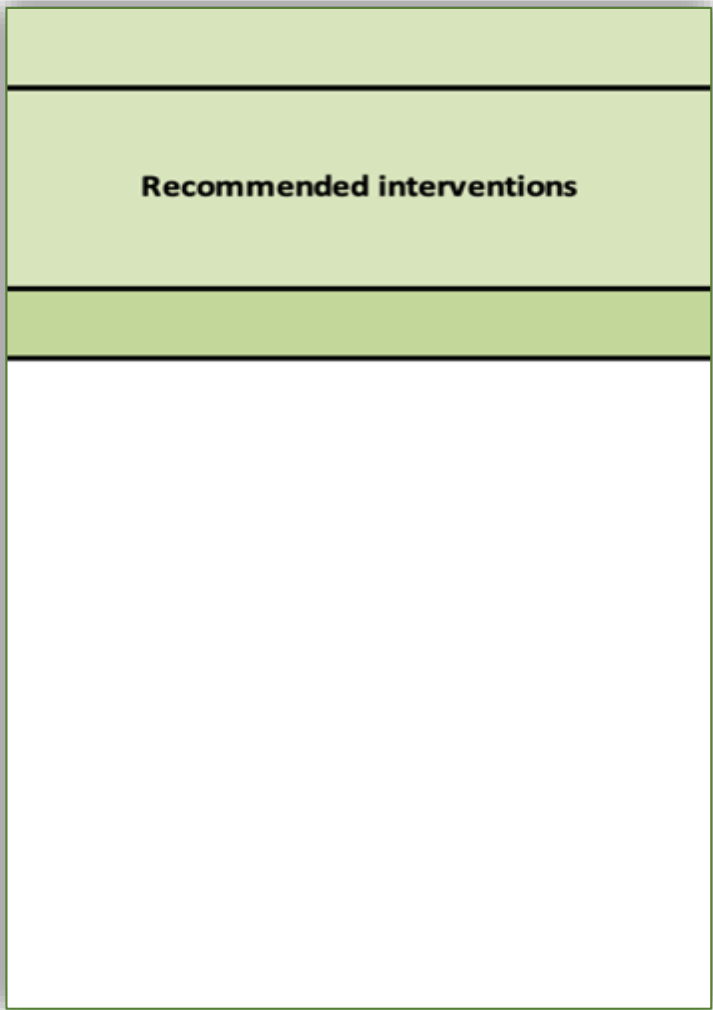


Chart C



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Let's Practice – Exercise 3



Assign a rapporteur
Be prepared to discuss your answers
You have 30 minutes for this exercise

Within your group, review the answers provided for Questions #2 & #3, Part 2 of the case study.

- Pick 2 of the 14 sections. What interventions would you propose to help the local government progress from its assigned score to its target score assigned in Part 3?

Refer to Chapter 3 - Fig 19 of the Handbook for scores

Implementation

Identify assessment type

- Specify the purpose and what you hope to achieve.
- Is it a formal or more casual assessment? Will the findings be reported or presented and if so, to whom?
- Will it be conducted internally or externally?

Part 2: On-site assessment

- Assessment team arranges visit to organization through focal point
- Assessment team reviews Part 1 with organization
- Assessment team interviews key stakeholders

Part 1: Self-assessment

- Focal person appointed by organization to coordinate responses with assessment team
- Assessment team sends Part 1 to Chief Administrative Officer or equivalent within organization
- Organization completes Part 1

Part 3: Evaluation

- Assessment team sends Part 2 findings to organization for review
- Assessment team completes evaluation, recommends interventions and lays out next steps
- An 'asset management profile' provided by assessment team to organization

Summary



AM Tools ...

- Do the diagnostics - understand the problem
- Create a plan to solve the problem