FRAMEWORK FOR STRATEGIC MANAGEMENT OF MUNICIPAL ASSETS

December 2019

JANAAGRAHA CENTRE FOR CITIZENSHIP & DEMOCRACY

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Preface

Indian cities are constantly on the lookout for ways to "do more" with municipal assets in their attempt to address the ever-growing needs of the urban populace. Attempts, are however, blocked by formidable challenges – absence of a credible asset inventory, asset ownership issues, vested interests, insufficient capacities, siloed planning and execution being a few.

Challenges on the ground are compounded by the lack of a body of knowledge around the process to arrive at a strategic decision on optimizing municipal assets and translating such decision into action. A large portion of the literature in this field revolves around policies and processes to acquire assets, maintain them, dispose them, maintain asset records, and related controls.

While procedures and controls address the critical aspect of safeguarding municipal assets, there is a need for guidance on pathways to unleash their potential. This Framework is an attempt to address this need. It prescribes a 7-stage process for strategic decision-making on optimizing value from municipal assets. the 7-stage process begins with maintaining an updated asset inventory - an essential condition for any further efforts. Subsequent stages detail how a municipality should go about assessing an asset's potential, determine its best-use scenario involving key internal stakeholders as well as city-level stakeholders in the process, and formulate a strategy to maximize the asset's value. The latter part of the 7-stage process proceeds to elaborate how the municipality should go about formulating a concrete project to exploit the value. The last Stage requires a post-assessment at a subsequent point in time of whether the project actually delivered on the outcomes originally envisaged.

Certain elements discussed in this Framework are unique and attempt to foster fresh thinking into the asset-optimization strategy-making process: the emphasis on value-maximization as against the traditional thinking of revenue-maximization; the focus on involving the larger group of stakeholders at the city level in contrast to restricting strategic decision-making to the municipality only – this allows one to distance asset ownership from value-extraction, thereby recognizing the possibility that the asset may yield better value to a stakeholder who may not necessarily own the asset. The Framework envisages building upon already prescribed asset management processes (asset registers, asset coding and so on) and therefore does not attempt to revisit first principles.

In order to understand how the Framework would play out in practice, a case study was taken of Puri municipality in Odisha, India. The first three Stages outlined in the Framework were simulated for four municipal properties (land and buildings). The SWOT Analysis undertaken as part of the case study provides a good starting point for Puri municipality to undertake the subsequent Stages of formulating a strategy, developing a project, and implementing it. The case study document accompanies this Framework.

Though the Framework focusses on municipal land and buildings, the principles outlined are equally applicable for most other municipal assets.

The Framework was developed by Janaagraha with support from Shakti Foundation. Suggestions to improve the Framework are welcome. We would be happy to learn from attempts to implement this Framework. The learnings would help refine the Framework going forward.

Janaagraha Centre for Citizenship and Democracy
December 2019

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Abbreviations

DC	District Commissioner
DPR	Detailed Project Plan
FA	Fixed Assets
GIS	Geographical Information System
IRR	Internal Rate of Return
IT	Information Technology
O&M	Operation and Maintenance
ULB	Urban Local Body

Chapter 1: The city manager's dilemma

World over, city managers[1] are often faced with the challenge of meeting the ever-growing service delivery demands of citizens using resources that are almost always scarce. The city manager is on the constant lookout for ways to extract maximum value out of the city's assets for giving good quality of life to its citizens. Most of them would agree though that this is easier said than done. A city manager aspiring to achieve this is faced with the following questions:

- What are the city's assets? Of these, what assets does the municipality control and what assets are controlled by other agencies?
- What is the physical condition of our assets?
- Are the city's assets being put to their best use presently?
- What is the total amount invested in the city's assets?
- Are we getting the envisaged financial and/or socio-economic returns from the assets?
- Can idle assets be put to more productive uses? If so, what are such uses? How do we decide the best use strategy?
- How do we get all stakeholders to consult and agree on the best asset usage strategy?
- How do we go about executing the strategy?
- What are the capital costs and operational costs of a particular alternative? What are the funding options: one-time as well as recurring?
- Do we have a concrete plan of action or a project outlined around such assets?

[1] City manager refers to the head of executive body of the local administration of a city.

Chapter 2: The Framework

Need for a framework

The requirement to maintain an Asset Register for all assets owned by government has been there all along in governing Acts, Rules, and Financial Codes. Consequent to the introduction of modern accounting in urban local bodies in India, the importance of valuing fixed assets, recording them in books of account, and presenting them in financial statements gained traction. The Ministry of Urban Development, Government of India brought out the Model National Municipal Asset Valuation Methodology Manual in 2009 and issued directions to States to develop their own asset valuation methodology manuals. Accordingly, each State developed its own manual[2].

While the manuals are exhaustive in so far as the operational aspects of asset management are concerned, there is a need for a Framework to guide the municipal administration through the sequence of steps that must be followed in order to arrive at a well-thought out strategy for optimizing value from its assets.

Overview of the Framework

The 'Framework for Strategic Management of Municipal Assets (Framework) attempts to provide a sequence of steps following which the administration of a small or medium sized municipality would be in a position to reach a data-driven, informed decision on asset utilization, in a participative manner, involving key stakeholders. This Framework applies to immovable assets that primarily comprise of land and buildings. Larger municipal corporations require sophisticated asset management systems (i.e. processes, technology, and skillsets) to address their asset management needs. Nevertheless, they would undoubtedly benefit from the principles outlined herein in conceptualizing and implementing their own asset management systems.

How to implement this Framework?

This Framework is not a rulebook to be strictly complied with. A municipality can make necessary adjustments during implementation to suit its specific context as long as the key principles and stages of the asset management cycle as envisaged herein are adhered to. The primary responsibility for implementation is of the Municipal Commissioner.

[2] For instance, Karnataka introduced the Karnataka Municipal Asset Management & Valuation Methodology Manual" (KMAM&VMM) in 2010. Similarly, erstwhile Andhra Pradesh had its own Municipal Asset Management Manual since 2008. Kerala introduced the Manual for Asset Management in Local Self Government Institutions of Kerala in 2017.

Chapter 3: The 7-stage process

Overview of the 7-stage process

The 7-stage process commences with the *sine qua non* for any asset management system, namely, an asset inventory. The last stage envisages a reality check on whether the asset has delivered on the anticipated results. Figure 1 depicts an overview of the 7-stage process.

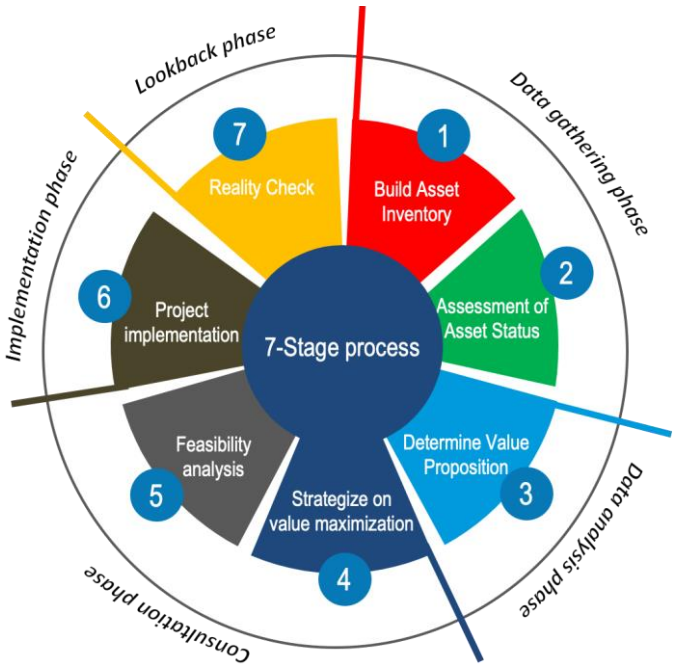

Figure 1: The 7-Stage process

Stage 1 deals with building a credible asset inventory. The asset inventory provides accurate and reliable data on municipal assets that fuels the rest of the six stages.

Stage 2 deals with assessing the present condition of one or more specific assets. Stage 1 and 2 constitute the *Data Gathering* phase of the Framework.

Stage 3 is part of the *Data Analysis* phase of the Framework. It involves determining the present as well as future value proposition of the asset based on the asset-specific data compiled in the two earlier stages as well as general information available within municipal systems[3].

Stage 4 is about engaging with internal as well as external stakeholders in deliberating and arriving at alternatives and related tradeoffs for maximizing value from an asset.
In Stage 5, the feasibility of identified alternatives is evaluated, which provides information for decision-making on the future course of action. Stage 4 and 5 fall in the *Consultation* phase of the Framework.

[3] Municipal systems include the likes of accounting system, budgeting system, works management system, geographical information system, taxation system and so on.

Stage 6, part of the *Implementation* phase of the Framework. covers the entire set of activities required to put the decision taken into action.

Stage 7 is a reality check of things as they have turned out vis-à-vis original plans and anticipated results. It forms part of the *Lookback* phase of the Framework. In practice, this may merge into Stage 2 and Stage 3.

Institutional arrangements

The Commissioner of the municipality is the primary custodian of the asset management function. Operational aspects of asset management such as maintenance of the Asset Registers, preparing the asset management reports, organizing meetings and consultations – activities integral to the 7-stage process are delegated to municipal officials. It is a good practice to house the asset management function in the Accounts department since the maximum number of touchpoints to the Asset Register occur as a result of financial transactions. Whether the responsibility is assigned to a designated Asset Management Officer or to one of the accounts personnel depends on the size of the municipality, number of assets under its control, available skillsets, and the internal work allocation structure[4].

Strategic decision-making responsibility with regard to municipal assets must be placed with the Senior Administration, generally a committee, and subject to the approval of the Council as appropriate.

[4]Such a person is referred to as an Asset Management Officer throughout this document.

Chapter 4: Stage 1- A credible asset inventory

The need

For any strategy exercise concerning municipal assets, an accurate and comprehensive asset inventory is critical. The asset inventory must reflect basic details of the asset such as physical features, technical specifications as relevant, and financial details. It must also reflect key changes to these over time – what is called as *asset history*.

Asset Register

An Asset Register is a record of all assets owned/controlled by the municipality. Events throughout an asset's existence right from original asset creation up till the asset is disposed are recorded including intermediate changes in the asset and maintenance events (generally referred to as *asset history*). Financial details such as original capital cost, major maintenance spends, cost of major upgrades/changes, annual depreciation charge, and disposal value are also recorded. Generally, separate Asset Registers are maintained for each major class of assets discussed above. Classifying assets under common types and sub-types helps in aggregating asset information at multiple levels. It also helps in presenting asset information in financial statements of a municipality. The Asset Code ensures that each asset is identified distinctly from other assets of the same type and sub-type.

Most municipalities do not have up to date Asset Registers even though governing statutes require such registers to be maintained. Any effort to optimize asset holding and usage without reliable asset data would lead to confusion and incorrect decisions. Creating an updated asset inventory would entail the following:

A. <u>One-time exercise to create/ update Asset Registers</u> – this would generally involve the following steps:
    1) Physical verification of assets already appearing in available records such as the balance sheet, Asset Register (if maintained), asset files, property registration records etc., classifying and coding such assets, and updating their information in the respective Asset Registers;
    2) Survey of immovable properties (primarily land, buildings, and infrastructure) to identify municipal assets and bring them into Asset Registers;
    3) Gathering data from public and other stakeholders (government departments, parastatal agencies) on municipal assets and follow up with surveys discussed above.

    Detailed operating procedures need to be drawn up before embarking upon the one-time asset mapping exercise including techniques to be used (total station surveys, GIS mapping etc.), data collection templates, verification protocols and so on. Adequate human and financial resources need to be budgeted for the exercise before commencement. The municipality may consider outsourcing the activity keeping time and capacity constraints in view.

B. <u>Regular updates</u> – which involves the process of keeping the Asset Registers up to date as and when asset-related events occur. Events that result in updates to Asset Registers include:

1) Asset creation – resulting from purchase, construction, acquisition, transfer from another entity. The point of capitalization5 in accounts provides the trigger for an update to the Asset Register. While the Asset Register must mandatorily record owned assets, from a larger asset management perspective, it is important to record even those assets on which the municipality exercises control without ownership by virtue of a right to use, lease, or similar arrangement.
2) Major asset maintenance events – the trigger for such updates being the incurring of expenditure on such maintenance.
3) Upgrades/ Changes to the asset – the triggers being the same as in (i) above, namely, the point of capitalization.
4) Annual depreciation – computed at the time of preparing the financial statements of the municipality.
5) Change in asset use – which could happen internally within the municipality or as part of an arrangement between the municipality and an external entity. Since such changes might not always have financial implication, events resulting such changes have to be kept track of and recorded in the Asset Registers.
6) Asset disposal – when the asset is transferred to an external entity. Asset disposals always have a financial implication even though there might not necessarily be a cash transaction such as sale. The trigger in such cases is the point of accounting such disposals.

The checkpoint for regular updates is at the time of annual physical verification of assets as well as during preparation of the financial statements of the municipality.

Annual Asset Inventory Review

Every year, before the commencement of the annual budget season, a summary report of all municipal assets is undertaken using the data in the Asset Registers as the basis. The format of the *Summary Report of Municipal Assets* is given in **Annex**. The Summary report is reviewed at an annual asset inventory review meeting. It becomes the basis for initiating further stages such as a Comprehensive Assessment of Asset Status (Stage 2) or Determination of Value Proposition (Stage 3). In other words, it gets the thinking started on what assets the municipality holds and how they can be utilized better.

At the end of each annual asset inventory review, a decision is expected to emerge on the assets that are to be taken up for a Stage-2 assessment and the timeframe for such assessment. Certain indicative criteria for selecting assets for a comprehensive assessment could be:

- All assets of a particular type, say, all lands, buildings, water supply assets;
- Top 10 assets by value;
- All assets created under a particular scheme or programme;
- All PPP (Public-Private-Partnership) assets;
- All assets more than 20 years old;
- All assets created in the last 3 years;
- Assets relevant for upcoming or proposed projects, if any.

[5] Point of capitalization is the point at which a fixed asset is recognized by passing an entry in the books of account of the municipality.

Chapter 5: Stage 2- Comprehensive assessment of asset status

The objective

A comprehensive assessment of asset status (also referred to as a Stage-2 assessment) focusses on a 360-degree assessment of an asset's condition and its available useful life rather than mere verification of its physical availability that an annual physical verification tries to achieve. A Stage-2 assessment generates information on the asset that feeds into the subsequent Stages of the 7-Stage strategic asset management cycle.

Selection of assets

A Stage-2 assessment is a resource intensive job. Given the extensive work involved, it may not be practical to do it for all assets every year. The basis for selection of assets for a comprehensive assessment is set during the Annual Asset Inventory Review explained under Stage-1. Using the basis, a list of assets for comprehensive assessment is prepared and the team that will conduct the assessment is decided along with the timeline within which the assessment is to be completed.

Assessment process

The team tasked with the comprehensive assessment commences with a review of the Asset Register to gather basic information on the asset. This is followed by a deep-dive into files/ documentation related to the asset to understand the asset history. This will involve reviewing documentation such as procurement contracts (tender documents, invoices), related usage contracts (rental agreements, use agreements), technical documentation (in the case of plant and machinery), other legal documentation (property registration documents), minutes of past relevant meetings and so on. The team also undertakes field visits to verify the asset location and ascertain the physical condition. It may hold discussions with the primary users of the asset to gather information on the current and potential asset usage. The team also obtains an understanding of past financial transactions by reviewing related accounting records. At each stage, the team will note its observations.

Assessment Report

At the end of the assessment process, the team produces an assessment report for each asset covering various facets of the assessment. The report template is given in **Annex**. The report is submitted to the Municipal Commissioner by the officer designated as the assessment team lead.

The comprehensive assessment report should contain the following information:

Basic details: Basic information on the asset extracted from the Asset Register and relevant documentation including key quantitative details such as area, extent, number of units, annual capacity and so on.

Ownership status: Mentioning whether the asset is owned or leased or controlled by the municipality as a result of some other arrangement, providing details of such arrangements.

Legal status: Details of past litigation with respect to the asset, if any, with brief details of the key issues involved and the present status.

Present usage and criticality: What is the asset currently being used as and by whom, who are the key beneficiaries of the asset usage, how critical is the asset to the present use it is serving as well as to the municipality as a whole. For example, a critical waste processing facility, the only bridge across the river etc.

Asset history: Briefly explaining key events related to the asset since its first acquisition such as ownership changes, major upgrades, large maintenance works, any other changes to the asset, and past usage history.

Present condition: Based on physical appearance and key performance parameters such as output, occupancy and so on.

Balance useful life: A technical estimate of how many more years the asset is likely to serve the present purpose provided routine maintenance is in place. Details of any major upgrade required to maintain its optimum operating condition.

Financial details: Original cost of the asset, depreciated value, average annual expenditure on maintenance, major maintenance expenditure in the past, cost of major upgrades in the past, average annual revenue generated (in case of revenue generating assets), present realizable value.

Armed with the report on comprehensive assessment of asset status, the Municipal Commissioner proceeds to Stage-3 to analyze the information to determine the value proposition that the asset offers.

Chapter 6: Stage 3- Determine value proposition

Value proposition versus revenue enhancement

A sound strategy for managing municipal assets must aim to optimize value for the municipality from an asset rather than merely try to maximize revenue from it. Revenue maximization approach suits those types of assets that are held with a commercial mindset[6]. Value optimization, on the other hand, tries to extract maximum benefit from the asset under prevailing circumstances. For example, heritage assets and parks may not yield significant revenues but have immense value to the city as cultural hotspots or green spaces wherein lies their value proposition.

Value proposition arising from a municipal asset has three dimensions to it namely, Economy, Efficiency, and Effectiveness. An asset is said to deliver optimum value when it helps attain the desired objectives in its intended use (*Effectiveness*) as a consequence of efficient systems and processes in managing it (*Efficiency*) at the least possible financial outgo[7] (*Economy*).

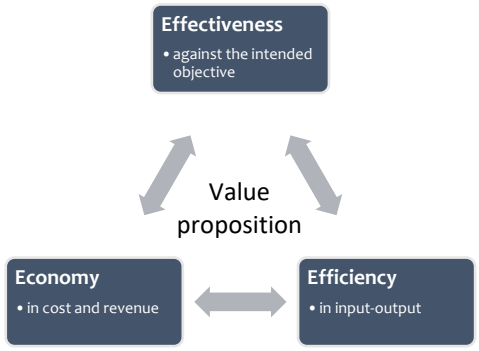

Figure 2: Value proposition from municipal assets

SWOT[8] Analysis

Using the information in the Report on Comprehensive Assessment of Asset Status, the Municipal Commissioner conducts an analysis of the asset's inherent Strengths and Weaknesses, Opportunities for exploiting the assets, and key Threats to realizing the opportunities. He may consult with different people including the team that conducted the comprehensive assessment, the department that is presently in charge of the asset, the users of the asset, and external experts. An indicative template for the SWOT Analysis report is given in **Annex**.

Review the SWOT

Once the SWOT analysis is complete for the entire set of assets selected for comprehensive assessment, key stakeholders deliberate upon the information with respect to each asset. This may lead to one of the following conclusions:

A. Continue present use – meaning that the asset is currently being put to the best possible use.

[6] In practice, very few assets are held by municipalities with a purely commercial objective

[7] Net of any revenues that may arise from the asset

[8] Strengths-Weaknesses-Opportunities-Threats

B. Explore alternative uses – implying that the asset has good potential but is not yielding value presently. This sets the tone for Stage-4 wherein a step-by-step approach is prescribed for exploring alternative uses. Disposing off the asset most economically could also be one of the alternatives.

Chapter 7: Stage 4- Strategize on value maximization

The consultative process

Where the SWOT review concludes that alternative usage models need to be explored in order to derive better value from an asset, Stage 4 provides guidance for stakeholder (internal as well as external) consultations to explore one or more alternative uses and decide on the best course of action. This Stage forms the core of the strategic asset management process envisaged in this Framework. It is also, most often, found to be the weakest link in a municipality's asset management strategy.

Considerations for framing strategy

A decision tree for reaching a concrete conclusion on the best possible strategy regarding an asset is shown in **Figure 3**. The decision tree is framed as a set of questions that need to be answered at each step progressively leading to the next step.

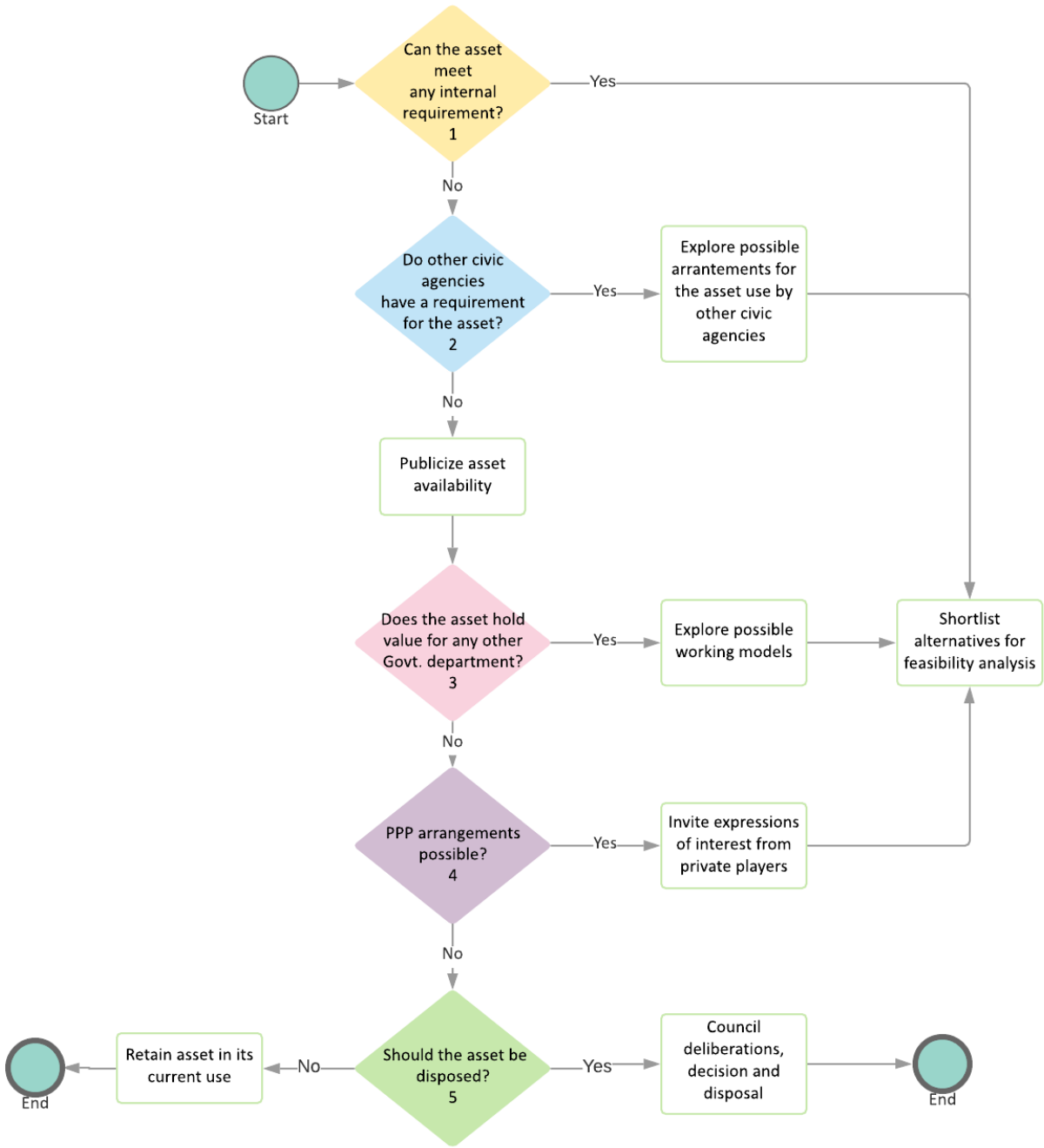

Figure 3: Decision tree for strategy formulation

Question 1 – Can the asset meet an internal requirement?

In other words, do other departments (i.e. departments other than the one that is currently using the asset) within the municipality have any use for the asset?

This question is put for discussion at a meeting of all heads of department with the Municipal Commissioner. At the meeting, the SWOT analysis and the Comprehensive Assessment Report for the asset are presented. The Department Heads react to the information presented and put forth their requirements, if any, for the asset in question. Options are deliberated and a couple of feasible alternatives are shortlisted for further analysis.

Question 2 – Do other civic agencies have a requirement for the asset?

If the municipality fails to identify an internal need for the asset in the medium-term or is short of resources to exploit the asset, the next question is whether the asset can be of use to other agencies[9][10] operating in the city. In other words, whether any other agency operating at the city level can exploit the asset to meet its asset requirement or service delivery plans?

The process is similar to the process followed with internal departments for answering question 1, except that the stakeholders are different. Stakeholders in this case are heads of civic agencies. The meeting in this case can be convened by the City Mayor or the Deputy Commissioner (DC) of the district. The asset related information is presented at the meeting[11] and the agency heads present their requirements. The requirements are discussed and one or two feasible alternatives are shortlisted for exploring further.

Subsequent to the meeting, the municipality works with the concerned agency to explore possible working models for making the asset available to the agency for the intended purpose. Once a workable arrangement is finalized, the proposal needs to be approved by the Municipal Council as well as the governing body of the counterpart agency. Once the required approvals are in place, the municipality can go about formally executing the arrangement. Multiple arrangements are possible between the municipality and the counterpart agency, which include outright transfer of the asset with/ without consideration, right to use with or without revenue sharing, rental/ lease arrangements, joint infrastructure development and so on.

Question 3 – Does the asset hold value for any other government department?

If no other civic agency expresses interest in using the asset or a mutually feasible arrangement cannot not be worked out, the municipality explores whether any state government department[12] would be interested

[9] Agencies commonly operating at the city level apart from the municipality are the city development authority, city police, water supply and drainage board (where water supply is not handled by the municipality), pollution control board, and electricity supply company. These agencies have their own operating plans, budgets, and asset acquisition/ management strategies and often these are not integrated with the municipality's plans and budgets.

[10] Special Purpose Vehicles formed under the Smart Cities mission could also be potential agencies for asset usage arrangements.

[11] For a more meaningful discussion, it is advisable to circulate the asset information to the agencies before the meeting.

[12] Including State boards/ corporations, public sector units

in utilizing the asset. Here again, multiple arrangement models are possible on the same lines as discussed in Question 2.

The municipality publicizes the availability of the asset through multiple channels. It can directly write to state government departments having a presence in that area/ district, raise the matter through the district level planning committees or through the municipality's parent department[13]. Departments interested in the asset may approach the municipality directly or through its parent department. Series of discussions are held between the municipality and the department to work out probable models. Once a concrete model is finalized, the proposal is placed before the Municipal Council for approval.

Arrangements of this type are very resource intensive and time consuming with multiple levels of clearances and approvals involved. However, it would be a strategic mistake to leave such options unexplored before moving on to more riskier alternatives such as PPPs and outright sale options discussed in the subsequent paragraphs.

Question 4 – Would a private player be interested? Possible PPP arrangements?

Public Private Partnerships are popular as high-risk, high-return options for asset value optimization. PPPs have proven to be extremely efficient arrangements by bringing out the best of both public and private institutions. At the municipal level though, the stakes are high and so are the risks of failure.

Here the onus on project conceptualization is on the municipality itself. Once the outline of a proposed PPP project is ready, it is a good practice to invite expressions of interest from private players. Doing so gives the municipality a good idea of the appeal of the concept[14] and any changes required to make it more enticing for private players. Based on the response to the call for expression of interest, a decision needs to be taken whether to proceed with the PPP model or not. Once the in-principle decision to exploit an asset as a PPP is taken, the municipality obtains the help of experts to help it through the subsequent processes.

Question 5 – Should the asset be disposed?

If none of the above-mentioned options fructify, the municipality is left with only two options – retain the asset in its current form or retire the asset from active use and take steps to dispose the asset. The implication of retaining the asset is that except land, most assets deteriorate over time or require spending on maintenance to keep them in usable condition. Even in the case of land, there is an effort involved in protecting and preserving it.

The Municipal Commissioner places the relevant asset information before the Council along with his recommendations. The Council deliberates on the issue and directs the Commissioner to proceed as per its decision. If the Council decides to sell the asset, it needs to decide on the selling mode, namely, auction, tender, distress sale etc.

Hierarchy of criteria

[13] Generally, the urban development department

[14] Many PPPs do not take off due to a lack of interest from private players after significant time and effort has been invested into the process by the municipal authorities.

Key considerations presented as questions 1 to 5 are not necessarily hierarchical though it may appear so from the exhibit. They are not watertight compartments either, meaning that a question can be raised only after concluding on the previous question. Questions 2 and 3 can be explored simultaneously. Similarly, question 5 can crop up quite early in the strategy formulation process if it is clear that the asset has no practical use. Similarly, a compelling PPP proposition (question 4) can be taken up without necessarily examining questions 2 and 3. It is also not uncommon to go back and revisit earlier questions after having moved ahead, if it is prudent to do so. The bottom line is to arrive at a well-informed, deliberated decision on the asset with stakeholder concurrence on maximizing the three E's namely *Effectiveness*, *Efficiency*, and *Economy*.

Chapter 8: Stage 5- Feasibility Analysis

The numbers test

A strategy that seemingly looks great on paper might fail the test when it comes down to a feasibility analysis. No asset optimization strategy is complete unless it clears the feasibility test. Primarily, there are three types of feasibility analysis:

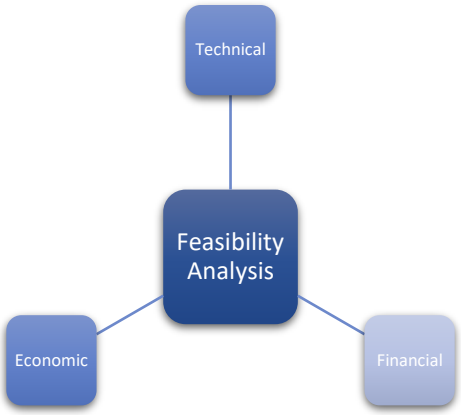

Figure 4: Types of feasibility analysis

Depending on the strategy adopted, the nature and extent of feasibility analysis may vary. For instance, where the municipality decides to continue the asset in its current use without any change, there is no need for a separate feasibility analysis. Also, where the municipality decides to let out the asset to a counter-party, there is no need for a detailed feasibility analysis[15]. Where the municipality intends to develop the asset further or enter into an arrangement for exploiting the asset jointly with another entity- public or private, the decision must be supported by detailed feasibility analysis. 'Retain' versus 'Sell' decisions also need to be supported by a feasibility analysis.

Technical Feasibility

Technical feasibility analysis involves satisfying oneself that the alternative being pursued will deliver outputs that meet expected performance expectations. There are established techniques of analyzing technical feasibility and such techniques are different for different types of projects. For instance, technical feasibility of a water supply project is entirely different from that of a construction project. Technical feasibility aims to establish the "*Efficiency*" criterion of the value proposition. Common questions the Technical feasibility will attempt to examine would be whether the design of the project is sound, whether the project outputs are clearly defined, whether the technology adopted is appropriate, whether all resource requirements are considered, whether the internal capacities are adequate to manage and execute the project and so on.

Financial feasibility

[15] Detailed technical analysis will however be done by the counter-party who intends to use the asset for a specific purpose.

Financial feasibility analysis looks at whether the financial proposition is realistic and whether the investment is justified. Broadly, financial feasibility aims to validate the "*Economy*" criterion of the value proposition. Financial feasibility examines questions like whether all asset lifecycle cost elements have been considered (land, construction cost etc.) including operation and maintenance costs, whether the sources of funds have been identified and reasonably secured, whether revenue projections are realistic and justify the investments and so on.

Unless an asset is being proposed to be developed as a revenue generating (more specifically, a self-sustaining asset), the usual commercial considerations such as internal rate of return, profitability, and return on investment that are used to assess commercial investment projects do not directly apply to municipal projects.

Economic feasibility

Municipal projects must be technically feasible. However, they need not necessarily be financially viable. Economic feasibility analysis answers the question of whether the municipality should go ahead with the proposed project or not. Economic feasibility goes one step beyond financial feasibility and tries to assess whether the socio-economic returns justify the investment. Direct as well as indirect costs and benefits are factored in economic analysis as against financial analysis which considers only direct costs and benefits. Economic analysis requires sector expertise apart from a technical and financial understanding. Broadly, economic feasibility aims to validate the "*Effectiveness*" criterion of the value proposition. It examines questions like the basis behind the social cost benefit assumptions, the correctness of economic internal rate of return computations, soundness of the underlying research and studies and son on.

Feasibility analysis process

Depending on the alternative chosen in Stage 4, feasibility analysis can be a quick exercise or long drawn one. For simple alternatives such as 'retain' versus 'sell', renting out and so on, the feasibility analysis can be a simple one-pager that can be turned around quickly. Larger, complex projects would need technical and financial expertise. There might also be a need to undertake surveys and studies to substantiate feasibility assessment findings. For instance, a proposal to develop a public park on a piece of land would require detailed technical, financial, and economic analysis before feasibility can be established.

Final decision

Depending on the size of the proposed project and the players involved, the feasibility report needs approval. While, at a minimum, a project needs to be approved by the municipality, where it involves other civic agencies or government departments, approvals are required from the respective approving authorities. Where the project turns out to be not feasible, it implies that the municipality goes back to Stage 4 and starts exploring other options.

Chapter 9: Stage 6- Implementing the Strategy

Implementation is as important, if not more important, than coming up with the right asset management strategy. Significant value can be destroyed owing to flawed execution of seemingly good strategies. Except where the strategy is to continue the asset in its current use, to rent out, or other actions where the municipality is not actively involved in further development of the asset, all other alternatives require detailed investment planning followed by deployment of adequate technical, financial, and human resources for project execution.

Project planning

The first task for the municipality is to identify and secure funding for the proposed project. This could be a combination of the municipality's own resources, borrowings, grant funding, beneficiary contributions, and contribution by project partners (other civic agencies or government departments or private partners). To the extent of own funding, the project expenditure needs to find a place in the municipality's annual budget (and the medium-term fiscal plan, where the municipality prepares one). Where external funding is involved, it involves making the necessary investment pitches and extensive paperwork.

In the planning phase itself, decision needs to be taken on whether the project will be executed by the municipality internally or be contracted out. The project may also be executed by the project partner with the municipality playing a more passive role. In either case, arrangements for project monitoring need to be put in place. Where the project involves land acquisition, rehabilitation and resettlement, activities must start well in time since these are time-intensive activities and prone to litigation. It is also important to put down how the project outcomes will be measured and a baseline assessment of the same.

All elements of project planning come together in what is called a *Detailed Project Plan* or *DPR* in short. The DPR goes through the prescribed approval stages before project commencement.

Project execution

This is about putting the project plans into action. Procurement is generally a large component of project implementation and needs to be initiated well in time in order to meet the project timelines. In practice, things frequently deviate from plans and therefore the need for close monitoring of the project throughout the project period. A project monitoring setup must be established right from the beginning. The number of persons and depth of experience of the project monitoring unit depends on the project complexity and the role of the municipality.

Project status reporting must happen on a regular basis at various levels. The status reporting must, at a minimum, cover the following:

- Physical progress;
- Financial progress;
- Status of key decisions taken in project reviews;
- Proposed project actions with timeframe;
- Expected cash inflows and outflows;
- Key issues in project execution.

A simple template for project status reporting is given in **Annex**.

Assetization on project completion

On completion of the project, the asset created needs to be put into use. This could be in the form of commissioning the asset (for example, in the case of machinery), launching (for example, in the case of transport facilities), or formal inauguration (in the case of assets like building, park etc.). Generally, on project completion, the assets created by the project are recognized in the accounts of the municipality as well as in the corresponding Asset Registers. Necessary entries are also required in Asset Registers against the original assets that have been subsumed into the new asset. Accounting entries in books of account to record creation of new assets and retiring of old assets also need to be passed.

Chapter 10: Stage 7- Reality check

A) At project completion

It is common for circumstances to change from the time a project was initially conceptualized to when it is completed and ready for use. This may affect the value proposition significantly for the municipality and other key stakeholders and upset many of the premises on which the project feasibility was originally established. Even though mitigation strategies in the project plan are expected to address such eventualities, there is a need to take stock at project completion and ascertain whether corrective actions are needed. This is done at a formal Project Completion Review. The Municipal Commissioner places a Project Completion Report before the decision-making Body/ Committee. The Committee reviews it, consults the relevant stakeholders, and directs appropriate action. A template for the Project Completion Report is given in **Annex**.

B) On an ongoing basis

The operation and maintenance (O&M) phase commences once an asset is dedicated to regular use. This is when stakeholders start to realize the asset's value proposition. It is very important to assess whether the asset is producing outputs as originally envisaged-initially at the concept stage, finetuned at the DPR stage, and revised, if necessary, at project completion. Further, it is important to assess whether the originally expected outcomes from the project are being achieved. This is essentially achieved by following Stage 1 and Stage 2 of the strategic asset management cycle explained in earlier Chapters.

Chapter 11: Strategic Asset Management – The Enablers

The Framework for strategic asset management cannot produce tangible results in isolation. While it provides a systematic methodology of going about maximizing value from municipal assets (municipal properties in particular), the methodology is effective when certain enabling municipal systems are in place. Five key enablers are discussed below.

Computerized asset inventory: Computerization of asset records ensures that each asset is identified in electronic form. This means that the recording as well as consumption of asset related data is authenticated and can happen at multiple locations simultaneously in real-time. Moreover, it reduces scope for errors of omission and commission. A computerized asset inventory is even more effective when it seamlessly interfaces with other municipal eGovernance systems such as accounting and budgeting, works management, inventory management, geographical information systems, and reporting.

Geographical information system: Municipal assets, more so immovable assets, must be geo-tagged so that the Asset Register can include spatial data on assets. This makes identification, monitoring, and management of assets more effective. Response times in cases of emergencies or breakdowns can improve with availability of spatial data.

Internal capacity building: In addition to core technical skills, the municipality must have access to the following talent pool: contract management, project appraisal – technical, financial, and economic, project financing, financial modelling, risk management, and fixed asset accounting. Help of external experts/ consultants must be sought where it is difficult for the municipality to acquire and retain such talent on its own.

Asset lifetime accounting: Most municipal accounting systems are not designed to capture lifetime costs with regard to an asset. Asset lifecycle accounting can be accomplished by simple changes to accounting processes and underlying formats. Most often, municipal budgets include capital costs, but fail to include provisions for operation and maintenance on an asset in subsequent years. This leads to under-funding in later years, thereby resulting in poor management of assets. Implementing medium-term fiscal planning[16] ensures that asset lifecycle costs are built into municipal budgets thereby ensuring continuity of funding throughout the asset's lifetime.

Internal audit: There is a need for an independent check that the municipal assets are safeguarded and efficiently managed. Asset management review must form part of the internal audit mandate. Most municipalities do not have internal audit. In such cases, an internal audit system must be put in place. Audit observations must form part of the comprehensive assessment of asset status discussed in Stage-2. This will ensure that the quality of asset management improves steadily over time.

[16] Under the Karnataka Local Fund Authorities Fiscal Responsibility Act, 2003, every municipal body must prepare a medium-term fiscal plan.

Annex – Date Templates

Summary Report of Municipal Assets

Summary as on: <<Date>>

Type	Sub-type	Description	Total quantity (nos.)	Total quantity (units)	Total written down value as at last financial year-end (Rs.)	Remarks
1	2	3	4	5	6	7

Note:

1. This report is presented summarized by Type and Sub-type of assets as per the asset classification structure prescribed by statute.
2. Units in Column 5 are expressed in specific units relevant to that asset. For example, square metres for land, square meters of built up area for buildings, number of kilometers of water pipeline and so on.
3. Remarks in Column 7 must be on any special characteristics such as restrictions on ownership of assets, assets belonging to others within the municipality's control, assets under lien and so on.

Comprehensive assessment of asset status - Report

Asset Code:
Asset description:
Date of Municipal Commissioner's direction to take up comprehensive assessment:
Assessment start date:
Assessment team (Names and designations):

Section 1 – Basic asset details

1.	Asset Code	
2.	Asset description	
3.	Date of original asset creation	
4.	Location	
5.	GIS coordinates, if available	
6.	Technical details (Example: in the case of land – extent, area, boundaries, survey numbers, property ID etc. In the case of building additional details like number of floors, built up and vacant area, type of construction etc. In the case of water tank, type of tank, capacity in litres etc.)	

Section 2 – Nature of control exercised over the asset by the municipality

7.	Is the asset owned by the municipality?	
8.	If owned, since when (date)?	
9.	How did the municipality attain ownership?	
10.	If not owned, nature of control exercised (Example: leased, rented, right to use)	

11.	If leased or rented, particulars of original owner of property (name and address)	
12.	If leased or rented, particulars of lease/ rental (date of agreement, agreement period, rental value etc.)	

Section 3 – Legal status

13.	Any disputes/ legal cases pending with regard to the asset?	
14.	If yes, brief particulars of such disputes/ cases	

Section 4 – Present usage

15.	What is the asset being used for presently?	
16.	Details of present usage (Example: In case of land, part being used as a cremation ground and part lying vacant; in case of building – shopping complex, part used as cinema theatre and part as offices; in case of park – part having garden and part having a lake and so on)	
17.	Who is currently using the asset? (Example: general public, tenants, department of agriculture etc.)	
18.	How critical is the asset in its present use (High/ Medium/ Low)? (Example: in case of a bridge – highly critical since it is the only bridge connecting ____ and ____ areas; in case of a shopping complex – low or nil criticality since there are other shopping complexes nearby)	

Section 5 – Asset history

19.	Particulars of any major changes to the asset since inception (Example: Construction of building, converted to playground, building demolished and rebuilt etc.)	
20.	Any major upgrades undertaken since inception? (Example: increase of tank capacity, addition of floors to building, theme park developed etc.)	
21.	Brief particulars of any past disputes/ legal cases/ statutory orders in connection with the asset	
22.	Past usage history (Example: used as office building, later used as commercial complex etc.)	
23.	Details of audit observations in the past pertaining to the asset, if any	

Section 6 – Present asset condition

24.	Physical condition (Good/ Okay/ Bad) along with brief description	
25.	Performance parameters (Example: storage capacity, output etc.)	
26.	Any other issues affecting usability (Example: blocked access, public objection etc.)	
27.	Estimate of balance useful life	
28.	Any major repairs/ upgrades required to maintain desired usage level?	

Section 7 – Financial details (amount in INR)

29.	Original cost of the asset	
30.	Book value as per last balance sheet	
31.	Expenditure on maintenance in the last 5 years	Year 1 – Year 2 – Year 3 – Year 4 – Year 5 -
32.	Expenditure on major breakdowns in the past	Year – Amount -
33.	Cost of major upgrades in the past	Year – Amount -
34.	Revenue generated in the last 5 years (in case of revenue generating asset)	Year 1 – Year 2 – Year 3 – Year 4 – Year 5 -
35.	Approximate present realizable value and basis of estimation	

Signature:

Date:

SWOT Analysis

Asset Code:
Asset description:
Date of Comprehensive Assessment of Asset Status – Report:

Strengths

1.		
2.		
3.		
4.		

(Examples: In the case of building, strengths could be recently constructed asset, proximity to marketplace, good construction quality, energy efficiency, room for further expansion. In the case of plant or machinery it could be adoption of new technology, availability of raw materials, good connectivity and so on).

Weaknesses

1.		
2.		
3.		
4.		

(Examples: In the case of land, weaknesses could be undulated elevation, poor connectivity, distance from water source, lack of basic facilities, security issues, upcoming highway project. In the case of waste processing plant, it could be over utilization of capacity, environmental issues, labour problem etc.).

Opportunities

1.		
2.		
3.		
4.		

(Examples: In the case of land, it could be the potential to develop water intensive projects due to availability of recycled water from nearby treatment plant. In the case of building, it could be the growing traffic on the highway on which it is located creating scope for developing hotels and restaurants, need for an office building in that part of the town etc.).

Threats

1.		
2.		
3.		
4.		

(Examples: In the case of garden, the non-availability of water in summer, encroachment from locals. In the case of rented office building, it could be termination of arrangement with landlord/ government department).

Remarks based on SWOT analysis

1. 2. 3.

Signature:
Date:

Project Status Report

Report date:	Previous report dated:	
Project Code:		
Project description:		
Approval dates: Technical -	Financial -	Administrative -
Date of commencement:		
Scheduled date of completion:	Original -	Revised -
Project cost (INR lakhs):	Original -	Revised -
Funding pattern:		
Progress %:	Physical -	Financial -

Section 1 – Physical progress

Activity	Responsibility	% complete	Original target date	Revised target date, if any	Current status	Remarks
1	2	3	4	5	6	7

Note:

1. Column 1-Activity refers to activities as per the Project Plan.

Section 2 – Financial progress

Amount in INR lakhs

Expenditure line item	Original budget	Revised budget	Amount spent till date	Pending bills, if any	Estimate of balance amount required till project completion	Remarks
1	2	3	4	5	6	7

Note:

1. Column 1-Expenditure line item refers to key line items of project spending.

Section 3 – Project funding position

Amount in INR lakhs

Source	Amount budgeted	Amount received till date	Expenditure incurred	Funding in pipeline	Balance	Remarks
1	2	3	4	5	6	7
Own budget						
_____ grant						
_____ loan						
<Partner> share						
Beneficiary contribution						

Section 4 – Status of project clearances

Nature of clearance	Approving authority	Target date	Current status	Issues, if any	Follow up required	Remarks
1	2	3	4	5	6	7

Section 5 – Status of key past decisions

Meeting reference	Action item	Responsibility	Current status	Remarks
1	2	3	4	5

Note:

1. After every project review meeting, fresh actions identified are added in subsequent reports. As and when actions are completed and reviewed, the corresponding line items are removed.

Section 6 – Key issues in project execution

Issue description	Background reference	Implication on			Remarks
		Project plan	Project cost	Others (specify)	
1	2	3	4	5	6

Signature:
Date:

Project Completion Report

Section 1 – Project details

1.	Project Code			
2.	Project description			
3.	Project rationale in brief			
4.	Project objectives (as envisaged at DPR stage)			
5.	Date of administrative approval			
6.	Date of commencement			
7.	Target date of completion			
8.	Actual date of completion			
9.	Assets created under the project	Asset Code & Description – Asset Code & Description –		
10.	Reasons for major delays, if any			
11.	Project cost as per DPR (in INR lakhs)			
12.	Actual cost at completion (in INR lakhs)			
13.	Reasons for cost escalations, if any			
14.	Project partners and their respective roles			
15.	Brief details of large procurement contracts[17] issued under the project	Nature of work	Name of contractor	Value in INR lakhs
16.	Particulars of major changes in project design after commencement?			
17.		Output levels (as designed)	Actual outputs (as per tests)	

[17] Large procurement means a contract with gross contract value exceeding 10% of the revised project cost.

	Details of project outputs versus expected output levels (if applicable)		
18.	Further changes, if any, required to achieve the desired outputs		
19.	Reasons for any significant variance in output levels		
20.	Is the asset able to deliver the project outcomes targeted during concept stage?		
21.	If not, reasons therefor		
22.	Whether any administrative or contractual changes are necessary in the light of changed circumstances?		
23.	Major learnings from the project that could inform future projects		

Section 2 – Project financials (in INR lakhs)

24.	Original project cost		
25.	Revised project cost		
26.	Project cost revision history	Date and revised cost – Date and revised cost -	
27.	Main reasons for project cost revision		
28.	Project expenditure breakdown by cost component	Budgeted	Actual
29.	Project funding breakdown by source	Budgeted	Actual

Section 3 – General

30. Any other important points with regard to the project

Signature:

Date: