Equitable Economic Growth in your Town or City
A diagnostic toolkit.

A Toolkit prepared for Cities Alliance and UNOPS by IPE Triple Line Consulting Ltd

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1
Overview
1.1 Introduction

This toolkit is a **DIAGNOSTIC** instrument. It is intended for use primarily by town and city administrations. Other users are likely to include policy analysts and researchers.

The toolkit has been designed to help urban administrations understand the dimensions of equitable economic growth (EEG) in their town or city.

More specifically, by using this toolkit town and city administrations will:

- Discover how EEG is related to access to urban infrastructure and services, as experienced by individuals, communities, and businesses, and subsequently:
- Be able to devise policies and projects that can promote EEG by improving the access to infrastructure and services.

This toolkit consists of:

- Eleven **WORKBOOKS** to be completed by the town of city.
- A list and description of the **INDICATORS** used in the workbooks.
- This document, which is the **MANUAL** for the toolkit.

By using the workbooks, town and city administrations will collect data that will allow them to analyse how the infrastructure and services that are provided in their town or city promote or hinder EEG.

In this toolkit manual you will find suggestions as to how to undertake that analysis, and how to devise policies and projects to promote EEG based on your analysis.

By collecting relevant information and presenting it in a clear and concise manner you may also be able to present a compelling case for funding EEG promoting projects to the national government, their donor partners, and/or other development finance providers.

This manual has four sections (for details see the next page):

- **Overview** - of the reasons why you should promote EEG.
- **Data Capture** - an explanation as to how to use the workbook.
- **Data Analysis** - suggestions as to how to analyse the data.
- **Enabling Policies** - suggestions as to how to devise policies (and projects) to promote EEG.
1. Overview

- Defines **Equitable Economic Growth**
- Highlights the important relationship between urban infrastructure and services, and EEG
- Outlines the Development Pathways that can result in improved EEG
- Discusses what do you have to do in order to promote EEG

2. Data Capture

- Takes you through the ‘toolkit process’
- Provides a detailed description of the WORKBOOKS
- Provides instructions as to how to use the WORKBOOKS
- Provides a description of the INDICATORS used in the WORKBOOKS

3. Data Analysis

- Provides examples of techniques that can be used to ANALYSE the data collected via the WORKBOOKS
- Show you how to make the DIAGNOSIS concerning HOW access to infrastructure and services affects EEG in your town or city
- Discusses how equitable economic growth can be PROMOTED in your town or city

4. Enabling Policies

- Provides suggestions as to how to prepare POLICIES to promote EEG
- Lists POLICY INSTRUMENT options that can be used to promote EEG
- Provides a REPORT TEMPLATE that can be used to present the town or city’s EEG promoting strategy
1.2 Why should a city promote equitable economic growth?

Equitable economic growth is necessary for sustainable development. Experience demonstrates that inequitable economic growth prevents social integration, that economic and income inequalities lead to rising and dangerous social tensions, and that businesses are constrained if many live at the margins of economic life.

Urban local governments have a responsibility to ensure that their town or city is not overwhelmed by growth that generates and perpetuates inequalities. If this challenge is not addressed, urban areas are likely to witness increasing unemployment and social distress, and reduced rates of economic growth and social development.

Promoting equitable economic growth in towns and cities is crucial for national development. Twenty years ago the majority of the World’s population live in rural areas; in twenty years time it is expected that over 60% of the population will reside in urban areas; and around 70% by 2050. If urban areas are not managed in order to promote equitable growth, economic development may be derailed, and the social fabric of many cities and nations may be strained – perhaps to breaking point.

What is Equitable Economic Growth (EEG)?
There are many definitions, but nearly all characterise EEG as a form of development which actively includes all members of society regardless of ethnic background, gender, income status or residential location. All social groups benefit from the economic growth process because access to urban infrastructure and basic urban services is as universal as possible, and promoted in a non-discriminatory manner. Social and economic development becomes increasingly inclusive as EEG deepens and is strengthened.
1.3 How can a city promote Equitable Economic Growth?

Only a few very large urban administrations can change the way their national economy ‘works’. Fortunately more direct action can be taken by most towns or cities to promote equitable economic growth. To varying degrees all urban administrations have the power to enhance access to infrastructure and service assets that can be used by individuals to improve their lives, by government organisations to improve their efficiency, and by private sector and state owned businesses to strengthen productivity and competitiveness.

The infrastructure and service assets over which urban administrations often have a high degree of control include:

- water supplies,
- sanitation, sewerage and drainage,
- educational and health facilities and services,
- public transportation, and
- the provision of land for housing and businesses.

These assets are often called public goods; infrastructure and services provided by government for the benefit of everyone. The effective, efficient and equitable delivery of these public goods has a very significant impact on the degree to which urban society and economy is strong, inclusive and sustainable.
Providing equitable access to public goods requires effective, fair and transparent governance systems. This requires effective administration and sufficient financial resources. This form of governance is characterised by strong and capable public institutions with clear rules, obligations and responsibilities, and which are able to successfully work in partnership with the private sector.

In contrast, when cities are noted for poor governance they are often characterised by the dominance of vested interests (and in extreme cases, by corruption). Poor governance makes it difficult to provide equitable access to infrastructure and services, as provision is often biased to vested interests, and the costs are often disproportionately borne by those without power or a voice.

Experience shows that poor governance hampers efforts to reduce poverty, constrains the expansion of businesses, and negatively impacts on the ability of the working poor to access assets and resources which would enable them improve their life chances. **Ultimately poor governance compromises the social fabric and economic strength of the city.**
1.5 What are we aiming to achieve?

The basic premise of this toolkit is that in urban areas, **Equitable Economic Growth (EEG)** involves:

- The process of **improving infrastructure and service public goods** in a town or city, which are delivered and/or maintained by that town or city.
- To ensure at least **basic levels of access to these public goods** for both **individual citizens, and private sector and State-owned businesses**.

Access to these public goods is to be delivered regardless of economic status, gender, ethnicity, or residential location. The aim is to ensure that access to public goods is promoted in a manner which directly:

- **improves the social and economic well-being of citizens**, facilitates their involvement in decent and productive employment, and, in particular, improves the life chances of the working poor; and
- **strengthens the productivity and competitiveness of businesses** in both the formal and informal sectors, especially entrepreneurship amongst the working poor.
This toolkit has been prepared because experience shows us that equitable economic growth (EEG) in urban areas strengthens as access to urban infrastructure and services improves and the quality of infrastructure and services is enhanced.

In order to collect data that will allow you to devise and implement policies that promotes EEG, you need to know:

• How *individuals and businesses* access infrastructure and service assets;

• What are the *factors that either hinder or facilitate access*; and

• How to *promote the most beneficial impact of this access* on these individuals and businesses.

We also need to know how *towns and city administrations* are producing and providing infrastructure and services, and what are the ‘development pathways’ leading from this provision to equitable economic growth.

The diagram on the next page is a summary of the pathways of change leading from the provision of infrastructure and services to the creation of an enabling policy environment promoting equitable economic growth. The diagram also highlights the type of information that needs to be collected and the actions that a town or city can take (based on the data collected and analysed) in order to promote EEG.
1.7 How does a town or city use this toolkit?

This toolkit is to be used to guide the collection of information related to:

- The **TYPE** of urban infrastructure and service ‘public goods’ that are provided by your town or city;
- **ACCESS** to these public goods (**COVERAGE, AFFORDABILITY** and **RELIABILITY**);
- The **COST** of providing these public goods;
- The **IMPACT** of the provision of these public goods on the citizens and businesses of your town or city;
- What **POLICIES** you can introduce in order to strengthen the provision of these public goods; and the impact access to these public goods has on the social and economic well-being of your citizens, and businesses;
- The **PRODUCTIVITY** and **COMPETITIVENESS** of the businesses in your city.

The toolkit consists of:

- data sheets (workbooks) to fill in,
- questions to ask of your stakeholders and
- sample surveys to complete.
**Definition of Urban Equitable Economic Growth (what we are trying to promote)**

Urban EEG is promoted when access to infrastructure and service public goods is delivered in a manner which:
- improves the social and economic well-being of all groups in the community,
- facilitates involvement by the less well-off in decent and productive employment,
- improves the productivity and commercial strength of businesses (both formal and informal sector enterprises), and
- noticeably improves the life chances of the working poor

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**Current situation**
Descriptive presentation of provision of infrastructure and services

**Nature of ACCESS to infrastructure and service public goods by individuals and businesses**
- Access statistics by population and business group (numbers & percentage; formal v informal)
- Price of access to public goods by group (total population and by gender, low-income, youth).
- Quality assessment of the public goods provided
- Projection of deficiencies over time

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**Trends and Dynamics**
Analytical assessment of use and impacts of the provision of infrastructure and services

**IMPACT of access to these public goods on individuals and businesses**
- Employment metrics by group
- Income by group / inequality trends
- Education metrics / skills by group
- Health metrics by group
- Shelter characteristics by group
- Access to land for businesses

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**Nature of the provision of infrastructure and service public goods by a TOWN or CITY**
- Existing service levels, and state of infrastructure
- Cost of delivering services and infrastructure
- Sources of capital related to public goods provision
- Administrative capacity and capabilities related to public goods provision

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**The IMPACT of provision of these public goods by the town of city on the ECONOMY**
- Improvement in the enabling business environment
- Improved productivity and competitiveness
- Degree of structural change - increase value addition, product differentiation and sophistication - increase private investment

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**EXTERNAL FACTORS** (e.g. macro-economic conditions; cultural preferences; the political disposition of those in power nationally and locally) that mediate both access to and the impact of infrastructure and services (on EEG metrics)

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**Policy Interventions**
Creating an enabling environment to improve access

**Ways to strengthen access to public goods and thereby promote Equitable Economic Growth**
- City reports on and charts progress to reducing the gap between the existing level of access and normative targets
- City makes clear its VISION - the type of economy it is aiming to construct with stakeholders and how this economy is to be characterised by equitable economy growth
- City then devises and implements evidence-based policies and projects to improve equitable access
- City also reports on change in the economy and their relation to strengthened public goods
data collection
2.1 Data collection - overview

This chapter is divided into three sections; the first describes the toolkit process; the second the type and nature of the data that should be collected; the the third how the workbooks are to be completed.

1. **The toolkit process**: Consist of six step from identifying a person or group of people who can manage the process of using the toolkit to the production of a EEG profile and strategy for your town or city

2. **The data to be collected**: The chapter continues by describing:

   - **First**, what type of data that you need to collect is described
   - **Second**, from where you can collect the data. The source of the data will include:
     - The town or city administration
     - Survey of individuals and business
     - Interviews with representatives of the community and the private sector
   - **Third**, the dimension of urban infrastructure and services that you should examine:
     - Coverage - is access universal?
     - Affordability - can everyone afford access?
     - Reliability - is the service always available?
   - **Fourth**, the detail to which you can go is describing the dimensions of infrastructure and services
     - You should always collect data that related to must-have CORE indicators
     - If you have time and the resources you can also collect data for additional SUPPORTING indicators

3. **The workbooks**: These are excel-based spreadsheets into which you insert the data that you have collected - In this chapter the nature of the indicators for which you will be collecting data are described
2.2 The Toolkit Process

1. Identify a point-person to manage the toolkit process (starting with stakeholder mapping)
2. Hold a stakeholder meeting (explain the purpose of the EEG, investigate & seek their support and help)
3. Fill in the workbooks and complete the analysis of the information collected
4. Write a draft of your City EEG profile and strategy
5. Present findings at second stakeholder meeting and discuss how to promote EEG
6. Finalise the EEG report, and devise EEG promoting policies and projects (promote equitable economic growth through improved access for all to infrastructure and services)

- If possible identify ‘bankable’ projects to promote EEG that can be presented to potential funders
- Describe current situation and trends related to the provision of infrastructure and services and their impact on individuals, businesses and the wider economy
- Identify the key EEG challenges facing your town or city...
2.3 Which data to collect

Let’s look at the diagram given on page 12 again:

You need to collect data related to:

1. The nature of the **PROVISION** of infrastructure and service public goods. This is **1** in the diagram.

2. The nature of the **ACCESS** to infrastructure and service public goods as experienced by individuals and businesses. This is **2** in the diagram.

3. The **IMPACT** of the type of access experienced on individuals and businesses and the economy in general. This is **3** and **4** in the diagram.

The data can be collected from:

- Town and city administrations,
- Via surveys of communities and businesses
- Through interviews with representatives of the community and business

See the diagrams on pages 17 which illustrates form where the data can be collected.
2.4 From where do you get the data?

In order to be able to devise policies and projects to promote EEG you need to know about the development strategy and financial strength of the city or town. This information can be obtained from:

- Town and city administrations (and also their development partners)

This information can be obtained by:
- Community surveys
- Interviews with community representatives

This information can be obtained from:
- Town and city administrations
- Urban development corporations
- Utilities companies

This information can be obtained through:
- Survey of businesses
- Interviews with private sector representatives e.g. chamber of commerce

- Definition of Urban Equitable Economic Growth
  (what we are trying to promote)

- Nature of ACCESS to infrastructure and service public goods experienced by individuals and businesses
- Nature of the provision of public goods by a TOWN or CITY

- IMPACT on individuals and businesses of access to public goods
- The IMPACT of provision of public goods by the town of city on the ECONOMY

- Ways to strengthen access to infrastructure and service public goods and thereby promote Equitable Economic Growth

- Current situation
- Trends and Dynamics
- Strategic Direction of Change and Policy Interventions
2.5 What data do you need to collect?

**Background information metrics**

These metrics should relate to the population characteristics of your town (e.g. the proportion of the population living in informal settlements in order to calculate service coverage and affordability by population group).

**Public goods**

The focus of this toolkit is access to public goods. In general, you municipality will have some involvement in delivering or regulating access to the following infrastructure and service public goods for which you will need to collect data:

1. **WASH**: water and sanitation (including solid waste);
2. **POWER** (electricity);
3. **HEALTH** facilities and services
4. **EDUCATIONAL** facilities and services;
5. **CONNECTIVITY** (including public transport);
6. **LAND and HOUSING** (including land for affordable housing, and for informal and formal businesses).

You will also need to collect important contextual data that allows you to analyse the impact of the nature of access to infrastructure and services public goods on individuals, business and the wider economy:

**Economic and employment metrics**

In order to be able to measure the impact of the provision of infrastructure and service public goods on businesses and the economy in general you will also need to collect information from businesses. This information will allow you to understand how the provision of infrastructure and service public goods affects the prospects of the working poor, and the productivity and competitiveness of formal and informal sector business.

**Municipal finances**

You also need information on the finances available to improve access to public goods and implement projects designed to promote equitable economic growth.
2.5 What data do you need to collect?

When finished you will have collected information on 9 subject areas, as shown below:

- **Background Information**
  - WASH (water, sanitation, and SWM)
  - Educational services and facilities
- **Economy and employment**
  - Energy
  - Connectivity
- **Municipal Finances**
  - Health services and facilities
  - Land and Housing

It is important that you collect data related to both **infrastructure and services** and the **economy**. The purpose of this toolkit is to help you understand how access to infrastructure and services affects the Equitable Economic Growth (EEG) profile of your city, and how changes in access to public goods can promote EEG.

It is crucially important that you also focus on the relationship between **businesses and the economy**, and access to infrastructure and services.

By collecting data on the financial strength of the administration of your town or city, you will be able to make an assessment as to how your town or city can financially support policy, programme, and project interventions that promote EEG. **Remember that the ultimate aim of this toolkit is to help you promote EEG.**

Refer to the diagram on Page 18 again, which illustrates from where you can obtain data relevant to the financial strength and economic strategy of your city.
2.5 What data do you need to collect?

It is worth repeating that it is important that you collect data related to both infrastructure and services, and the economy - remember that the primary purpose of this toolkit is to help you understand:

- How the provision of and access to infrastructure and services affects the equitable economic growth (EEG) profile of your city or town.
- How changes in the provision of and access to infrastructure and services access can promote EEG within your city or town. Indeed, the ultimate aim of this toolkit is to help you promote EEG.

So you need to understand BOTH how infrastructure and services are provided and who has what type of access - AND how the economy of your city or town ‘works’ and how the economy can be improved and made more ‘equitable’ by enhancing the provision and access to infrastructure and services.

**INSTRUCTURE AND SERVICES**
- How are infrastructure and services provided?
- Is provision adequate?
- What determines provision?
- Are there glaring gaps in the provision?
- Why are these gaps appearing?
- Does everyone have a reasonable degree of access? If not why not?

**THE ECONOMY**
- How does the economy ‘work’? What are the main drivers?
- Are businesses constrained by inadequate infrastructure and services?
- Are informal sector businesses more severely affected than formal sector companies?
- What type of infrastructure and services are required by the working poor to improve their economic life-chances?

To answer these and related questions you need to fill in the infrastructure and service workbooks.

To answer these and related questions you need to fill in the EEG workbook which is likely to require a BUSINESS SURVEY and discussions with representatives of the formal and informal private sector.
2.6 Data dimensions to capture - Public goods

You will try to capture an overall measure of access (target indicator and normative indicator) and three data dimensions for each public good which help describe the overall level of access (or potential access). These are:

• **Coverage**
• **Affordability**
• **Reliability**

For example, when investigating the provision of water you need to investigate the level of access in terms of:

• **Coverage** e.g. proportion of the population who have physical access to a safe drinking water supply

• **Affordability** e.g. the proportion of household income that is typically spent on safe drinking water

• **Reliability** e.g. the number of hours per day that safe drinking water is available.
2.7 Data and indicator types - Public goods

Qualitative and quantitative information

The toolkit requires you to collect both qualitative e.g. opinion based data and quantitative data – e.g. statistics. During the analysis process you will then compare and relate the two types of data to one another to see if there are any patterns of contradictions. For example, the official statistics on access to water may show a positive picture whereas interviews with local stakeholders may uncover that access is far from universal. Comparing these results will give you a more balanced picture.

The qualitative and quantitative data will be collected as a series of core indicators (qualitative data) and supporting indicators (quantitative data) which are set-out in a short questionnaire-style survey which you will need to complete for each public good on an annual basis. For ease, these have been set-out in a number of MS Excel workbooks which allow you to capture the data in a digital format. Alternatively, you can print each workbook questionnaire and fill in manually.

There will be seven indicators in total which help describe access to each public good:

- 1 Target indicator
- 3 Core indicators – one each for coverage, affordability, and reliability based on qualitative information
- 3 Supporting indicators – one each for coverage, affordability, and reliability based on quantitative information.

The difference between these will be explained on the following pages.
The key summary or target indicator gives a measure of overall access to each public good. This indicator can be compared to a recognised norm or standard, for example those given in the workbooks typically reflect the relevant indicator given for the appropriate Sustainable Development Goal (SDG) for each public good.

For example, when assessing access to education services, a key indicator reported under Goal 4 of the SDGs is the proportion of students completing primary education (SDG indicator 33: primary completion rate for girls and boys).

This target makes it possible to compare access across cities or countries, though you may decide to replace the target indicator with a local/national standard if one exists.
2.8 Indicator types – norms (trends and dynamics)

The normative indicator also gives a **measure of overall access** to each public good from a supply-side point of view.

Whilst the target indicator gives a measure of how many people are benefitting from the provision of each public good i.e. the demand that is being satisfied, the normative indicator tells how much of each public good should be supplied in each case to meet a recognised norm or standard. This helps to demonstrate the gap between the theoretical amount of each public good demanded by a city against the amount actually delivered or supplied by the city. This understanding can then help guide improvements to service delivery.

For example, in most cities around the world there will be a desired standard or norm for the amount of water, often measure in litres per day, that each citizen requires to maintain good health and well-being. We can measure the amount actually delivered and compare it to this norm, in order to assess the size of any gap between the aggregated demand for water and the realised supply.

In each case you should select the **recommended norm or standard for the supply of each public good** that has been adopted by your city.

A traffic light system of scoring can be used to see ‘at-a-glance’ whether your city is significantly below the normative standard (red), ‘on-track’ e.g. over 50% towards the target (yellow); or reached or exceeded the target (green). Next we'll attempt to understand more about the potential the reasons for any observed gap through information gathered on core and supporting indicators as discussed on the following pages.
2.8 Indicator types – core and supporting

Core and Supporting Indicators

The core and supporting indicators are used to assess physical coverage, affordability, and reliability of the supply of each public good. The core indicators are based on qualitative judgements about the supply of public goods. The supporting indicators are quantitative measures of the supply of public goods. In theory the scores for the core and supporting indicators should help explain overall access to the public good (the target indicator). There are three core indicators and three supporting indicators measuring:

- **Coverage** e.g. the potential for physical access
- **Affordability** e.g. the pricing of the public good
- **Reliability** e.g. how reliable is the supply of the public good

The qualitative opinion measured by Core indicators should be relatively easy to capture. Supporting indicators require more data/depth of knowledge, and may be complicated and time-consuming to use. You should as a minimum collect information for the core indicators.

Toolkit to enable the diagnosis and promotion of Equitable Economic Growth. Cities Alliance - UNOPS
2.8 Indicator types – core indicators

Core Indicators

The Core indicators will be a multiple choice ‘check-lists’ that relates to the way in which public goods are provided or accessed. These provide a qualitative measure of how likely it is that access is equal and the extent to which the local government (or responsible institution) is attempting to ensure equal access.

The qualitative responses can then be converted to a quantitative score to allow the indicators to be compared over time, or between cities. A ‘traffic-light’ system is then used in the final score so that anyone analysing the answers to the questions can see ‘at a glance’ how well prepared your city is to secure access to each public good.

An example is provided below for access to waterservices.

Core Indicator question: Does your city have a piped (reticulated water supply)?

- A city that answers Yes scores 2 points
- A city that answers Partially scores 1 point
- A city that answers No scores 0 points

<table>
<thead>
<tr>
<th>CORE INDICATOR</th>
<th>RESPONSE</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>Does your city/town have a piped (reticulated) water supply?</td>
<td>Yes</td>
<td>e.g. A complete network, servicing all of the city</td>
</tr>
<tr>
<td></td>
<td>Partially</td>
<td>e.g. a functional network, but does not service all of the city</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>e.g. complete lack of a functional network</td>
</tr>
</tbody>
</table>
2.8 Indicator types – supporting indicators

Supporting Indicators

Building on the information gathered using the core indicators, there are then an additional three supporting indicators required which help further measure access to each public good. The supporting indicators require quantitative data that may have been collected as part of a census or some other survey that has been carried out in your city. Alternatively, in the absence of having the data to hand, you may need to commission a survey to gather the data – for example, a household interview survey.

The supporting indicators have been designed to be flexible so that you can use your best available knowledge. For example, you may have the results to a survey that was carried out a few years ago which provides the data you need. Although this is not ideal, it will allow you to use this information as a supporting indicator in the diagnostic process.

Overtime, as the diagnostic toolkit becomes embedded in your local government, you may be able to plan and collect information more regularly and with greater accuracy. It may be as important initially though to get into the habit of collecting the data required for the EEG toolkit.

A Supporting indicator question can also be measured at different levels of complexity:

1. As a minimum record the basic level of information which gives a basic overview of the situation (e.g. an overall score)

2. If you can answer in more detail, move onto the extended level of information – this provides data that has been disaggregated, for example by location, gender, or some other characteristic. In the example below the indicator is disaggregated by location and type of SWM service received.

<table>
<thead>
<tr>
<th>SUPPORTING INDICATOR</th>
<th>BASIC</th>
<th>EXTENDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of household income/expenditure is spent on SWM services?</td>
<td>0.14%</td>
<td></td>
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2.9 Overall scoring

To give you an example of how the scoring might work in practice, let’s take the case of the provision of improved water as a public good with a description of each scoring box from left to right (see image below). All seven indicators have also been assigned a traffic light colouring where red = poor; yellow = average; and green = good levels of access.

<table>
<thead>
<tr>
<th>ACCESS INDICATORS</th>
<th>CORE INDICATORS</th>
<th>SUPPORTING INDICATORS</th>
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<tbody>
<tr>
<td><strong>WASH (water)</strong></td>
<td><strong>Coverage</strong></td>
<td><strong>Coverage</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Affordability</strong></td>
<td><strong>Affordability</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Reliability</strong></td>
<td><strong>Reliability</strong></td>
</tr>
<tr>
<td><strong>target indicator</strong></td>
<td><strong>core indicators</strong></td>
<td><strong>supporting indicators</strong></td>
</tr>
<tr>
<td>90%</td>
<td>2</td>
<td>49%</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>6.4%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>75%</td>
</tr>
</tbody>
</table>

**Target indicator**

The city scores 90% against the sanitation target indicator - ‘the proportion of the population with access to safely managed water’. This score may be explained by the level of coverage, affordability, or reliability of the water supply as measured by the **core and supporting indicators** in the next six boxes.

**Normative indicator**

The city follows the agreed national standard of supplying 20 litres of safe drinking water, per person, per day. In this case they supply 10 litres per day, as such they score yellow – to indicate there is room for improvement.

**Core indicators (0-2)**

- **Coverage** of the mains water network (1 or amber)
- **Affordability** of the water supply (2 or green)
- **Reliability** of the water supply (2 or green)

**Supporting indicator**

- **Coverage** of the mains water network (53% in this example)
- **Affordability** of the water supply (0.7% of household income in this example)
- **Reliability** of the water supply (0.004 employees per connection of the sanitation network)
2.10 The workbooks – overview

You will be collecting data and information on nine topics:

- **Background information on your town or city** (including the state of the town or city’s finances)
- **Information concerning access to public goods** - infrastructure and services
- **Information on the nature of your city economy**

In order to collect this information in a structured way, the EEG toolkit comes with a series of **workbooks**, in the form of **MS EXCEL** spreadsheets. The workbooks have been designed so that you can capture information about the characteristics of access to public goods in your city **regardless** of how much information already exists.

**How do you capture the information?**

In its simplest form, each workbook represents a questionnaire form. This can be filled out as a spreadsheet OR printed and filled manually. There is one worksheet for each type of information you need to collect i.e. the nine categories featured right.

You should attempt to answer as many of the questions as you can and give answers to the **best of your knowledge**.

An example of one of the workbooks is given overleaf on slide 25. They have been designed to be relatively easy and fast to complete - but at the same time giving you all the information you need to understand how access to urban infrastructure and services affects the nature and potential of equitable economic growth in your town or city. Familiarise yourself with all the EXCEL workbook now.
2.10 The workbooks - an example

The **target indicator** - in this case the proportion of population with access to safe potable water.

**Core indicators** (questions in white boxes) all of which are easy to answer. In this case does your city attempt to even out the price of water to ensure universal access?

Supporting indicators is the - in this case **how many hours per day do those who are connected to a piped water connection receive water?**

**Comments section** – further qualitative information on access to each public good that may enhance understanding of the barriers to improving access.

Extended indicator. In this case is the - in this case - **how many hours per day do those who are connected to a piped water connection receive water?** BY SLUM v NON-SLUM areas
2.10 The workbooks - The Overall Summary Table

The summary workbook is informed by the detail contained in individual workbooks for each infrastructure and service public good. The summary table provides a ‘snapshot’ of the current status of access to each public good which can be read at a glance, and which will be useful in comparing the performance of different cities. This sheet provides the overview of the metrics for each public good: the output indicator, plus three core and three supporting indicators. For each public good there are seven indicators in total, across the eight types of public good.

The overall summary table is colour-coded in a traffic light system to give a sense at a glance where access to certain public goods is poor, average, or good. This is particularly useful for comparing one city with another.
2.10 The workbooks – index

The workbooks should be worked through in any order. *n.b. the ‘overall summary’ workbook will auto-complete once you have completed workbooks 1-11, you do not need to manually fill in this workbook if you have already completed the others.

<table>
<thead>
<tr>
<th>Workbook</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Background information</td>
</tr>
<tr>
<td>2</td>
<td>WASH: water</td>
</tr>
<tr>
<td>3</td>
<td>WASH: sanitation</td>
</tr>
<tr>
<td>4</td>
<td>Solid waste management</td>
</tr>
<tr>
<td>5</td>
<td>Energy</td>
</tr>
<tr>
<td>6</td>
<td>Health facilities and services</td>
</tr>
<tr>
<td>7</td>
<td>Educational facilities and services</td>
</tr>
<tr>
<td>8</td>
<td>Connectivity</td>
</tr>
<tr>
<td>9</td>
<td>Land and housing</td>
</tr>
<tr>
<td>10</td>
<td>The economy (impact metrics)</td>
</tr>
<tr>
<td>11</td>
<td>Municipal Finances</td>
</tr>
</tbody>
</table>

Once you have completed the workbooks go to Chapter 3 which provides ideas and recommendations as to how to ANALYSE the data, generate INSIGHTS, and prepare to devise and implement POLICIES that will enable the promotion of equitable economic development.
GO TO WORKBOOK 1

By completing this workbook you will collect background information on the nature of the population your town or city and basic statistics about its infrastructure and services.

The completion of this workbook will help you to see how the economy is changing, what challenges businesses, both formal and informal, are facing, and how urban infrastructure and services affect employment and business prospects.

As with all the workbooks - you have a choice between three different levels of data capture – at its simplest, make an informed guess to answer some of the questions (or ask a few businesses or organisations representing business). If data already exist to enable you to answer the questions then use it!

Please make sure you have filled ALL of the required information in this first workbook. Missing information on this workbook will mean that the analysis of trends and dynamics in later workbooks will not be calculated automatically.
Water - GO TO WORKBOOK 2

**Target Indicator**: use either Sustainable Development Goal 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all i.e. 100% coverage or your national target

**Water and EEG**: A supply of clean, safely managed and affordable drinking water is a necessity for life and health, and vital for nearly all economic activities. Modern water supply systems in towns and cities can deliver water of sufficient quality and in plentiful supply in order to meet the needs of residents and businesses.

However, access to safely managed water is neither guaranteed nor often affordable by many. For the poorest, collecting water or paying private vendors can represent a burden both in time and cost. Securing access to a safe, reliable water supply can vastly improve the health conditions of children and young people, for example by reducing the spread of diarrheal infections. Making provision for a **safely managed water supply** will also reducing the burden of having to collect water, which often falls disproportionately on women and children.

City administrations play a crucial role in ensuring access to safely managed water either through the direct provision or in partnership with the private sector.

*The World Health Organisation and UNICEF’s Joint Monitoring Programme (JMP) use a ‘ladders’ of water and sanitation to describe an analysis of trends in water access according to four categories. Safely managed water is any improved source of drinking water for example Piped water into dwelling; Piped water to yard/plot; Public tap or standpipe.
In order to measure how well your city is helping those that live in the city access safely managed water you will need to measure:

- **the extent to which physical access to a mains water connection is possible** – piped water that is safely managed
- **The extent to safely managed water is affordable to those needing it** – generally less than 5% of household income
- **The extent to which those receiving safely managed drinking water could expect interruptions to their supply** e.g. where there are issues with the supply of that water.

| Target Indicator | • The proportion of city population that has access to safely managed water drinking-water sources
| Normative Indicator | • Litres of water delivered, per person, per day (compared to normative standard of litres of water required by each person per day) expressed as percentage. (Please base on the local/relevant norm or standard).
| Core Indicators | • Does your city/town have a piped (reticulated) water supply?
| | • Does your city/town attempt to even out pricing of water to ensure universal access?
| | • Does your city/town have a forward investment plan for improving access to water?
| Supporting Indicators | • What proportion of households are officially connected to a piped mains water supply? i.e. to their house or yard
| | • Proportion of household income is spent on safely managed water? (tariff per 4m3/average household income)
| | • How many hours per day do those connected to a piped water connection receive water? (% of total e.g. 24 hours)
Sanitation - GO TO WORKBOOK 3

**Target Indicator** - Use either: **Sustainable Development Goal 6.1**: By 2030, achieve universal and equitable access to safe and affordable drinking water for all i.e. 100% coverage or your national target

**Sanitation and EEG impacts** - Improved sanitation is vital in reducing levels of environmental contamination, for example where people are forced to defecate in the open. This in turn reduces exposure to the risks of diarrheal diseases, microbial infections and other major health, complaints to which children are particularly susceptible. Ill health and disease in turn can severely compromise the ability to work; the productivity of a society becomes degraded.

Where viable sewerage systems reduced the pollution of drinking or ground water and helping to eliminate water borne diseases and the breeding sites for insects further reducing the risk of disease. Sewerage systems, however, can be expensive and are not necessarily the most cost effective solution to dealing with sanitation, particularly where retrofitting a complex sewerage into high density neighbourhoods. ‘Off-site’ sewerage systems often require an abundance of water to ensure they function properly and as such may not be appropriate in areas that experience water stress. Municipal Governments must balance the provision of high quality sanitation systems that allow for safe management of wastewater with the sustainable use of water resources.

*The World Health Organisation and UNICEF’s Joint Monitoring Programme (JMP) use a ‘ladders’ of water and sanitation to describe an analysis of trends in access to sanitation according to five categories - this gives an understanding of the proportion of population using improved or ‘safely managed’ sanitation facilities. e.g. piped sewer system, septic tank, or ventilated improved pit latrine – one that hygienically separates human excreta from human contact.
In order to measure how well your city is helping those that live in the city access safely managed sanitation you will need to measure:

- **the level of coverage the city has in terms of a piped sewerage system** – piped wastewater that is safely managed
- **The extent to which sanitation services are affordable to those needing it**
- **The extent to which the municipal government is investing in ongoing maintenance of sanitation systems** to ensure a reliable service

| Target Indicator Normative indicator | What proportion of city population is using safely managed sanitation services  
| | Litres of wastewater processed i.e. cleaned per day expressed as a percentage of the total volume of wastewater produced per person, per day. |
| Core Indicators | Does over 50% of the city and town's households have some form of improved sanitation available?  
| | Does your city/town attempt to even out pricing of sanitation services to ensure universal access?  
| | Does your city/town have a forward investment plan for improving the reliability/efficiency of managing sanitation? |
| Supporting Indicators | What proportion of the city's households are connected to a safely managed system of waste capture/treatment?  
| | Proportion of household income spent on sanitation services? (monthly cost of service provision)  
| | The number of employees per connection to safely managed sanitation services |
Solid Waste Management - GO TO WORKBOOK 4:

Target Indicator: Proportion of solid waste that the city formally managed on a daily basis

Solid waste and EEG: Solid waste generation presents unique hazards for those living and working in urban areas. Poorly managed solid waste can lead to a range of environmental and public health concerns ranging from the degradation of the natural environment, such as water resources, to illness and disease. Solid waste can also cause disruption to traffic flows and pedestrians, and hinder economic activities.

Waste generation rates are correlated with income growth. One typically finds that as household income rises so does the amount of waste produced, and the composition of that waste often changes, increasingly more non-organic waste e.g. packaging.

Municipal Governments are often joined by the private-sector in delivering solid waste management services.

Frequently a proportion of a city’s solid waste may be collected and processed by informal waste management organisations involved in reusing or recycling the waste. As such solid waste management can provide employment and income generating opportunities.

Regardless of who collects solid waste from households and businesses in your city, how the waste is finally disposed of is of crucial importance. Where provision has been made for the controlled disposal of solid waste the public and environmental health of the urban area is more likely to be preserved.

Good urban governance arrangements and open dialogue between any stakeholders in the waste management system lay the foundation for effective coordination of the management of the city’s solid waste.
In order to measure how well your city is helping those that live in the city access safely managed sanitation you will need to measure:

- the level of coverage the city has in terms of households and businesses receiving a formal waste collection service
- The extent to which solid waste management services are affordable
- The extent to which the municipal government is ensuring that solid waste is being finally disposed of in a manner that protects environmental and public health.

<table>
<thead>
<tr>
<th>Target Indicator</th>
<th>Normative Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proportion of solid waste that the city formally manages on a daily basis</td>
<td></td>
</tr>
<tr>
<td>Total number of KGs of solid waste that is safely managed expressed as a proportion of the total KGs of solid waste produced per capita, per day.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the majority (e.g. over 50%) of the city and town's households benefit from a solid waste collection service?</td>
</tr>
<tr>
<td>Does your city/town attempt to even out pricing of solid waste management services to ensure universal access?</td>
</tr>
<tr>
<td>Does your city/town have a dedicated landfilled site for the city's solid waste?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>What proportion of the city's households have access to a formal solid waste collection service?</td>
</tr>
<tr>
<td>Proportion of household income spent on SWM services?</td>
</tr>
<tr>
<td>Proportion of solid waste that is disposed of safely</td>
</tr>
</tbody>
</table>
GO TO WORKBOOK 5.

**Target Indicator - Use either:** Sustainable Development Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all, or your national targets

**Electricity and EEG:** Without electricity economic (and social) often life grinds to a halt. Cities and urban areas offer opportunities to distribute energy to households and businesses with greater efficiency, provided that the urban form is compact and well planned, and the required infrastructure is delivered in an efficient and cost-effective manner. Nevertheless, for many urban residents access to electricity remains limited, particularly for the poorer sections of society. The lack of tenure and the informal settlement location of many frequently hampers or prevents formal connection to a mains electricity grid. For some, illegally connecting to a mains supply is the only option; others often resort to solid, unclean fuels to generate power and heat, which often leads to public health issues such as respiratory illness and at the city-level, global warming through the emissions of greenhouse gases.

Furthermore, even where the infrastructure is in place and a formal connection secured, in many cities daily blackouts constrains economic activity and adversely affect the well-being of citizens.

“Energy is the golden thread that connects economic growth, increased social equity, and an environment that allows the world to thrive.”

UN Secretary-General Ban Ki-moon
## Energy

<table>
<thead>
<tr>
<th>Output Indicator</th>
<th>• Percentage of the population with access to a modern source of electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normative Indicator</td>
<td>• Total kwh per person per day delivered expressed as a percentage of the total kwh per person required on a daily basis. (Please base on the local/relevant norm or standard)</td>
</tr>
<tr>
<td>Core Indicators</td>
<td>• Does the majority (e.g. over 50%) of the city benefit from a connection to the mains electricity grid?</td>
</tr>
<tr>
<td></td>
<td>• Does your city/town attempt to even out pricing of electricity to ensure universal access?</td>
</tr>
<tr>
<td></td>
<td>• Does your city/town have a forward investment plan for improving the reliability of the energy supply?</td>
</tr>
<tr>
<td>Supporting Indicators</td>
<td>• Population (% of households) formally connected to the mains electricity grid?</td>
</tr>
<tr>
<td></td>
<td>• Proportion of household income on electricity/energy?</td>
</tr>
<tr>
<td></td>
<td>• How many hours per day do those connected to the mains grid receive power?</td>
</tr>
</tbody>
</table>
Health facilities and services

Target Indicator - Use either: Sustainable Development Goal 3: Ensure healthy lives and promote well-being for all at all ages, or your national target

Health and EEG:
Universal health coverage (UHC) has a direct impact on the welfare of an urban population. Access to health services enables people to be more productive and active contributors to their families, their communities, and at work. More specifically, UHC ensures that children can go to school and learn, and be ready to fully contribute to society.

Physical access to health services is relatively difficult to measure; yet, it is often the basis for concepts of coverage. Legally required coverage is meaningless if the necessary physical health care infrastructure and health-care staff are not available.

Moreover, access to health services not only varies among countries, regions and cities, but also within countries, regions and cities. City data should also be collected by ward or sub-district if possible and certainly by formal vs informal settlements areas.
Moreover, access to health services not only varies among countries, regions and cities, but also within countries, regions and cities. City data should also be collected by ward or sub-district if possible and certainly by formal vs informal settlements areas. Although measuring access to health services can be problematic, there are several supply-side indicators that can serve as a proxy for access to health services:

- **attended by skilled health personnel**: percentage of live births attended by skilled health personnel in a given period of time, and
- **density of health professionals** i.e. the number of population per health professional, i.e. physicians, nurses and midwives.

<table>
<thead>
<tr>
<th>Target Indicator</th>
<th>• Proportion of births attended by skilled health personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Indicators</td>
<td>• Are there sufficient numbers of hospital beds/clinic spaces in the city?</td>
</tr>
<tr>
<td></td>
<td>• Does your city/town attempt to even out (subsidies) pricing of healthcare services to ensure universal access?</td>
</tr>
<tr>
<td></td>
<td>• Does your city/town have a forward investment plan for health care facilities/infrastructure?</td>
</tr>
<tr>
<td>Supporting Indicators</td>
<td>• Number of in-patient hospital beds per 100,000 population</td>
</tr>
<tr>
<td></td>
<td>• Out-of-pocket expenditure as a percentage of total public expenditure on health</td>
</tr>
<tr>
<td></td>
<td>• Measles (MCV) immunization coverage among 1-year-olds (%)</td>
</tr>
</tbody>
</table>
Educational facilities and services

GO TO WORKBOOK 7

Target Indicator - Use either: Sustainable Development Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, or your national target

Education and EEG: This dimension addresses the issue of educational opportunity, by indicating how widespread formal education is in the city among school-aged population. Education is one of the most important drivers of human and economic development.

Reporting access to education by gender is important because inequality in education by gender is most marked and the evidence clearly indicates that education for women and girls is one of the most important pathways to social and economic development.

Reporting on the differential enrolment by gender is also consistent with the SDG No 5: *Achieve gender equality and empower all women and girls.*
Educational facilities and services

In order to measure how well your city is helping those that live in the city access education services/opportunities you will need to measure:

- **The extent to which school places are made available** – either by public or private means (coverage);
- **The extent to which schooling is affordable to all** – even when education is state funded, there may be other costs which households have to meet to ensure children can attend school;
- **The extent to which those wishing and able to attend school can do so** without hindrance or interruption (reliability).

<table>
<thead>
<tr>
<th>Target Indicator</th>
<th>Normative Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary School Survival Rate</td>
<td>The gap between the total number of school places provided within the city and the total number of school places required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are all those under 12 wishing to go to school able to attend school in your town/city?</td>
</tr>
<tr>
<td>Does your city/town attempt to even out (subsidies) pricing of education services to ensure universal access?</td>
</tr>
<tr>
<td>Does your city/town have a forward investment plan for meeting increased demand for school places?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of primary schools per 100,000 population</td>
</tr>
<tr>
<td>Out-of-pocket expenditure as a percentage of total public expenditure on education</td>
</tr>
<tr>
<td>Average pupil teacher ratio</td>
</tr>
</tbody>
</table>
GO TO WORKBOOK 8

Target Indicator: use your national target

**Connectivity and EEG:** Efficient connectivity is crucial for sustainable urban development, poverty reduction and growth. Rapid urbanisation, and an unregulated mix of traffic can combine to create congestion and pollution, often a major constraint to doing business.

High up-front costs of building transport infrastructure can mean that poor planning decisions could lock cities into a path of costly and unsustainable development.

High transport costs can have a disproportionate impact on the poor representing a significant barrier to mobility. For example, hindering getting to and from work, to and from school, and accessing shops, markets and services.

**Poor transport = high business costs**

A defining characteristic of cities is therefore the degree to which accessibility is based on the physical proximity between origins (e.g. where people live) and destinations (e.g. where people work) or on transport solutions which can overcome spatial separation, and the degree to which these solutions involve private or public motorised transport. More compact and dense cities are typical examples of providing connections through greater proximity.
Connectivity can also mean the way that people communicate with each other both within and between cities. Information and communication technologies (ICT) change the ways in which we socialise and work, having substantial impacts on economic performance and the success of individual firms. At the household level evidence suggests that ICT access leads to rising income levels, particularly amongst the very poor. (May, J., V. Dutton, and L. Munyakazi. 2014. “Information and Communication Technologies as a Pathway from Poverty: Evidence from East Africa.” ICT Pathways to Poverty Reduction. Ottawa, Canada: IDRC.)

<table>
<thead>
<tr>
<th><strong>Target Indicator</strong></th>
<th>• Density of paved roads in the city (km of paved road per km² of land)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Indicators</strong></td>
<td>• Does the city administration believe that the population has universal access to a road network?</td>
</tr>
<tr>
<td></td>
<td>• Does your town/city administration believe that city’s population have access to some form of safe and affordable public transportation (including the use of taxis)?</td>
</tr>
<tr>
<td></td>
<td>• Does your city/town have a forward investment plan for improving the reliability/efficiency of transport infrastructure e.g. roads and public open space?</td>
</tr>
<tr>
<td><strong>Supporting Indicators</strong></td>
<td>• Proportion of paved roads out of the total length of all roads in the city</td>
</tr>
<tr>
<td></td>
<td>• Public Transport Affordability Index</td>
</tr>
<tr>
<td></td>
<td>• Percentage of paved road network in good and fair condition* (% of Total Road Network)</td>
</tr>
</tbody>
</table>
GO TO WORKBOOK 9

The supply of land precedes the delivery of other public goods e.g. roads and housing. Access to land is vital for the urban poor; it enables access to a range of services, and allows assets and capabilities to be built. By completing this workbook you will collect information on the supply of land and housing, and how your citizens access these most important resources.

City Governments need functioning land markets to ensure that there is a steady supply of urban land for development and to allow them to capture rising land values to help finance infrastructure and residential development. The adequate supply of land is often the result of effective urban governance systems. You should assess, for example, the efficacy and equity of property titling systems, with a view to improving the efficiency of legal processes, and minimising transaction costs.

As the population of a city increases so too will the demand for housing and employment land. City Governments often limit the rate and location of land release and the resulting form of urban development heavily influences the price of housing and employment land. Government action directly impacts on the shelter options facing low-income households.

Governments can and do determine the scale and extent of the disadvantage that low-income households face when the only affordable accommodation is in inaccessible sites.

Where a city government is unable to ensure the timely release of suitable and affordable land for housing, one is likely to see the growth of informal or slum* settlements, which often result in sub-standard housing which lacks basic infrastructure and services. A poorly functioning housing market can also affect firm productivity where the quality and range of housing options fails to attract higher skilled labour and inward investment.
## Land and Housing

<table>
<thead>
<tr>
<th>Target Indicator</th>
<th>• Proportion of the urban population living in slums or informal settlements</th>
</tr>
</thead>
</table>
| **Core Indicators** | • Is there a policy or programme that supports the regularisation of titles or alternative documents in established informal settlements / slums?  
• Are there any municipal government funded housing programmes in your city?  
• Are there approved physical plans for urban expansion to accommodate population growth? |
| **Supporting Indicators** | • Proportion of city land subject to land registration system  
• Cost of registering property (% of property value)  
• No. of building permits issued last year per 100,000 population/ time in days to issue a building permit |

Note: A slum household is a household that lacks any one of the following five elements:

- Access to basic water (access to sufficient amount of water for family use, at an affordable price, available to household members without being subject to extreme effort)
- Access to basic sanitation (access to an excreta disposal system, either in the form of a private toilet or a public toilet shared with a reasonable number of people)
- Security of tenure (evidence of documentation to prove secure tenure status or de facto or perceived protection from evictions)
- Durability of housing (permanent and adequate structure in non-hazardous location)
- Sufficient living area (not more than two people sharing the same room)
GO TO WORKBOOK

By completing this workbook you will collect information on the nature of the economy of your town or city. In particular the completion of the workbook will allow you to see:

• How the economy is **changing**;

• What **challenges** formal and informal businesses are facing,

• What hinders or prevents the working poor access to assets and resources that are needed to improve their lives; and

• How urban infrastructure and services affect **employment and business prospects**.

• When analysing the data always think about how infrastructure and services impact upon the prospects of businesses, and especially on micro and small enterprises and the working poor.
As with all the workbooks - you have a choice between three different levels of data capture

- At its simplest, make an informed guess to answer some of the questions (or ask a few businesses or organisations representing business).
- If data already exists to enable you to answer the questions then use it!
- If you have the resources and the time, undertake a survey of businesses and/or the workforce (indeed Part B Workbook 8 requires that you have surveyed businesses – if you have undertaken such a survey, then you can complete Part B, if not just focus on Part A and when you have the resources and time then undertake the business survey).
- A suggested semi-structure business survey questionnaire accompanies workbook 8 – but you can design your own.
GO TO WORKBOOK

By using this workbook you will measure:

- **The overall performance** of how public goods are provided in your city using an overall output indicator.
- **How public goods are currently being provided** in your city and the nature of their provision i.e. production, affordability, and reliability/efficiency,

You will be able to prepare a ‘health check’ of municipal finances in order to assess whether increasing inputs (investing) is a realistic possibility for your city. The health of your municipal finances and the ways in which they are managed can also indicate whether your city is likely to have difficulties delivering public goods and services in the short term, and/or meeting investment needs in essential infrastructure over the long-term.

Municipal finances are often determined in terms of the **benefits-received principle** such that public goods and services, wherever possible, should be paid for on the basis of the benefits received from those services.

For example, certain public goods e.g. water, waste collection, energy may be accessed through *user-fees* and as such take on the characteristics of *private goods* where there is a clear relationship between the benefit received by an individual or business from accessing a public good and the fee charged/unit cost.

In this case, the municipal government may collect user fees, or may have entered into a partnership with a third-party organisation to manage/deliver access to these public goods. As the municipal budget may not include line items for water or waste collection for example, or may only include a line item for capital expenditures related to these goods.

**Capital and revenue budgets**

Where the municipal government has sole responsibility for delivering a public good or service they will more than likely be responsible for all *capital expenditure* related to that public good as well as the operational or *revenue expenditures* such as wages, maintenance and servicing costs. This distinction should be reflected in the municipal finances and there are a number of indicators that we’ll use to test the health of the municipal finances which examine the differences in these two elements of the budget.
Workbook 11 must be customised to reflect only those public goods and services that are delivered either in part or whole through municipal finances.

Where the municipal government is not responsible for the financing (and/or operational control) of the delivery of certain public goods it is still useful to understand any gaps between the supply and the demand of these public goods as this will affect city productivity and competitiveness both at the scale of the individual and the firm.

To summarise, in order to prioritise which public goods need further investment we now need to understand:

i. the extent to which the municipal government has control over these public goods and the health of municipal finances which may be used to increase supply

ii. An estimate of the extent of the gap between the supply of public goods and the demand for them

The following page will set out the key indicators that measure the health of municipal finances. The municipal government budget should contain all of the information you need to complete Workbook 11.

<table>
<thead>
<tr>
<th>The indicators</th>
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<tbody>
<tr>
<td>• Operating ratio</td>
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<tr>
<td>• Capital Utilisation Ratio (CUR)</td>
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<tr>
<td>• Debt Service ratio (DSR)</td>
</tr>
<tr>
<td>• Own Source Revenue to Assigned Revenue/ Own Source Revenue to Total Revenue</td>
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<tr>
<td>• Ratio of capital expenditure to operating expenditure (or total expenditure)</td>
</tr>
<tr>
<td>• Operational surplus to total revenue</td>
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data analysis
3.1 Introduction

1. The chapter provides examples of tools and techniques that can be used to analyse the data:
   - Strength Weaknesses Opportunities Threats (SWOT) analysis
   - PROBLEM TREE analysis

2. This chapter presents a commonly used framework to analyse data:
   - a SITUATIONAL assessment which allows you to describe the provision of and access to infrastructure and services public goods in your town or city
   - a CAUSAL analysis to highlight the reason why access to infrastructure and services varies across your town or city, and what is the impact of the varying levels of access on individuals, communities and businesses
   - a SOLUTIONS framework; a convincing policy solution to the ‘problem’ that you have identified

3. The chapter discusses how the ANALYSIS can highlight:
   - HOW access to infrastructure and services directly affects EEG in your town or city
   - HOW EEG could be PROMOTED in your town or city
3.2 How to start the analysis

What do you do with your completed workbooks!

There are various ways in which the data can be presented and analysed – examples are given in this toolkit. You will have your own data analysis requirements, and your own ideas concerning how want to present the information that you have collected. Given in this toolkit are suggestions that you may find useful to produce a rapid but comprehensive assessment of the prospects for equitable economic growth in your town or city.

But remember that data presentation and analysis must be driven by a strategic purpose: which, as regards this toolkit, is the need to highlight how equitable economic growth can be PROMOTED in your town or city (see slide on page 10). Important questions to ask of the data include the following:

- How many people currently access each public good?
- Does access vary for particular groups e.g. by income-level; by location; by gender?
- What constraints or hinders access, particularly in relation to the working poor, and women and girls?
- How do variations in access affect the growth prospects of businesses, particularly informal enterprises?
- Exactly how are variations in access reflected in the performance of the private sector?
- What costs might be associated with improving access, particularly for the working poor?
- What are the longer-term forecasts for access to each public good [e.g. given current levels of (population) growth what proportion of people in the future are likely to be able to access each public good];
- If there is a forecasted gap between the supply and demand of each public good, what key actions can your mayor, city administration, and stakeholders take to ensure that this gap is closed?
- How does the situation in your town or city compare to the national picture?
The analysis of city-based data leading to policy recommendations often takes the following form:

- **First**, a **SITUATIONAL assessment**, through which you describe the current and expected future condition of the topic you are investigating, in this case access to infrastructure and service public goods, and the relation between this access and equitable economic growth. A situational analysis also often includes a description of the topic context, in this case the population and economic characteristics of your town or city, and the prevailing relevant policy environment at city and national levels.

- **Second**, a **CAUSAL analysis**, which seeks to highlight the reasons why the problematic dimensions of the topic you are investigating have arisen. This analysis can also identify how the problematic dimensions have arisen - what are caused the rise of inequalities? Why is access to public goods so difficult for some?

- **Lastly**, a **SOLUTIONS framework**, through which you build a convincing policy solution to the ‘problem’ that you have identified. This framework often includes an assessment as to how the public and the private sector can work together to solve the problem; clearly defined policy interventions (evaluated, prioritised and sequenced); the identification of the resources required to effectively and efficiently implement the policy and ‘responsibility assignment’, namely which department in government and which non-government stakeholders will undertake what actions in order to implement the solution.

The three basic steps of the analysis are illustrated on the slide on the next page.

The chapter titles of your **city equitable economic growth profile** will directly relate to the above ‘three steps’ of the analysis (see Slide 4.8 on page 85).
3.3 The structure of the analysis

1. Situational Assessment
   - A descriptive presentation of the ‘facts’, and narratives related to the provision and use of infrastructure and services public goods in your city
   - Identify who has what degree of access to these public goods
   - Identify the ‘gaps’ between what is currently provided and the normative standards or targets that you want to reach
   - Present an assessment of the relevant policy environment at city and national levels
   - Display the information using graphs, diagrams and charts

2. Causal Analysis
   - An analysis of (a) the reasons why access to infrastructure and services varies, and (b) what is the impact of the varying levels of access the lives of citizens, especially the working poor, and on businesses in general
   - Focus on the causes of inequalities related to ‘access’
   - Display the information using diagrams, SWOT analyses, and PROBLEM TREE analyses (see slides on page 60 and 61) and charts

3. ‘Solutions’ Framework
   - Construct a convincing policy solution to the ‘problem’ that you have identified.
     - Devise policies that directly improve access to infrastructure of services, particularly for disadvantaged groups
     - Identify the key ‘entry points’
     - Devise policies to improve the enabling environment (e.g. resource mobilisation needed to strengthen provision)
     - Ensure stakeholder involvement devising & implementing policies
     - See section 4 of this toolkit for further suggestions concerning the preparation of policies
A SWOT analysis is a very common way of presenting and analysing information – which can lead you to think constructively about relevant policy options and interventions.

You could start by envisaging your economy as one that noted for equitable economic growth:

- What are the strengths of your economy in relation to ensuring that everyone has access to infrastructure and service public goods?
- What are the weaknesses of your economy?
- What factors lead you to believe that your administration CAN promote equitable economic growth?
- What factors may threaten the promotion of equitable economic growth?

There are other subjects related to equitable economic growth for which you can prepare a SWOT analysis – the above is only one suggestion.
3.5 Preparing a Problem Tree

PROBLEM TREE analysis will help you to find solutions to the problems caused by inequitable economic growth by mapping out the anatomy of cause and effect around a particular issue (e.g., the lack of growth of micro and small enterprises).

PROBLEM TREES help you think about the nature and cause of a problem, and thus help you formulate policy-based solutions.

We know that EMPLOYMENT is the primary ‘transmission channel’ between individuals and growth – what is preventing the poor access to decent employment in your town – what’s the problem tree?
Problem trees help you understand the **focal problems** (the most important problems). This is the first step in finding solutions (policy interventions that effectively address the problem). They can also help you establish whether further information, evidence or resources are needed to make a strong case for action and build a convincing policy solution.

The example opposite relates to Nepal, where many town administrations are trying to promote inclusive and sustainable development. Poverty and inequalities, however, are common, and too frequently are on the increase.

The problem tree highlights many of the causes of this state of affairs, and was used by many towns administrations as a first step towards creating consensus about ‘the problem’, and then devising policy and project interventions to promote inclusive and sustainable development.

*Source: Dr Nicholas Miles, GHK international 2013*
Creating Enabling Policies
4.1 Introduction

This chapter provides suggestions as to how you can devise enabling policies to promote EEG. The steps that we will follow are listed below.

- Highlight the KEY PROBLEMS identified through the casual analysis
- Devise feasible SOLUTIONS with your stakeholders

- Devise ‘access improvement’ policies that are specific to each infrastructure and service
- Focus on enabling policies that are applicable to all forms of infrastructure and services
- Make sure that the policies you devise are complementary and inter-locking
- Investigate resource mobilisation, and your capacity and capability to affect change

- Ensure your policies complement and are re-enforced by national policies
- Ensure that gender inclusion measures are included in your EEG strategy
- Don’t forget the importance of climate change impact resilience and your EEG strategy
- Present your EEG strategy to the people, your city stakeholders and potential funders
- Always look to improve your strategy over time, and build the capacity and capability of your town or city to direct and manage change
4.1 Introduction

Remember that you are using this toolkit to help you understand how access to infrastructure and services affects equitable economic growth, and subsequently, enable you to devise policies to gradually but steadily promote equitable economic growth. Improving access should increase the productivity of businesses and the employability of your citizens. On both accounts your potential tax take could rise so enabling you to provide even better access - and so a virtuous cycle is established:
4.2 Creating Policy from Data Analysis

It is worth repeating! You are using this toolkit to

• help you understand how access to infrastructure and services affects *equitable economic growth*, and,

• subsequently, enable you to devise policies to gradually but steadily promote *equitable economic growth*.

BUT - This may not be straightforward! Translating data and analysis into policy can be technically difficult, and usual involves a political process whereby the impacts and consequences of implementing proposed policies are negotiated amongst city stakeholders and especially with those affected.

A suggested useful starting point when translating analysis to policy is to focus on the key problems associated with access to infrastructure and services as identified through the *causal analysis* that you have completed, and discuss with stakeholders how these problems can be alleviated or overcome. Involving your *stakeholders* is likely to be very important.

Successful implementation is nearly always associated with the proposed policies being acceptable to the vast majority of the stakeholders; indeed it is preferable if not essential that the stakeholders are involved in their preparation, and enthusiastically endorse the policies and the way you propose to implement the policies. *Stakeholder ownership generally underpins policy success.*
4.3 Work with informed, participating, and responsible stakeholders

Promoting EEG will involve a variety of stakeholders including your town or city administration, the private sector, and the local communities. However, those who *directly experience* the inadequacy of access to urban infrastructure and service public goods are often in the best position to identify exactly why access is difficult, and they are commonly able to identify feasible improvements. Indeed, local communities are often in an ideal position to plan and prioritise their own needs. They should be involved in and perhaps lead the development of your equitable economic growth (EEG) strategy.

Promoting EEG is also likely to benefit from partnering with international organisations. For example, working with the International Finance Corporation (IFC) will help complement public sector initiatives and partnering with organisations such as Slum Dwellers International (SDI) will help to make sure that the interventions meet the needs and demands of your residents, and, in particular, the needs of the working poor.
4.4 Devising appropriate policies

**Policies specific to a public good:** You should consider devising policy interventions designed to improve the provision of and access of each of the six types of urban infrastructure and service public goods for which you have collected information through the workbooks. These could include:

- Working with local communities to identify exactly why access is difficult and what could be feasible solutions
- Prioritising investment in specific areas (e.g., informal settlement areas)
- Ensuring that tariff regimes are progressive in nature

**Policies related to all public goods:** You should also focus on the encompassing enabling policy environment, for example:

- Resource mobilisation required to fund the provision of the infrastructure and services
- Good governance practices related to the provision of infrastructure and services
- Urban planning designed to enhance access to basic levels of infrastructure and services
- Economic planning designed to improve employment opportunities

Lastly, remember that policies should be as ‘SMART’ as possible:

- **Specific** - clearly defined, and targeted at a specific area for improvement
- **Measurable** - associated with improvements that can be measured and evaluated
- **Assignable** - to be implemented by clearly identified city department(s), stakeholders or individual persons
- **Relevant** - associated with goals that can be readily obtained given available resources
- **Time bound** - can be achieved within a realistic time period
4.5 Devising appropriate policies

But make sure that the policies you devise are complementary and inter-locking: Equitable economic growth is a multi-dimensional issue; it is associated with a range of determining factors such as access to land, infrastructure and services, housing and finance; how communities participate in planning and governance; and how the economy functions - what type of economic activities characterise your town or city. Policies which address the multi-dimensional nature of EEG should be prepared.

These will be inter-locking policies that cover the range of EEG determining factors. This is the approach adopted by the World Bank (see the figure opposite; and refer to the World Bank paper from which the figure is extracted).

Review the financial strength of your town or city; Investigate resource mobilisation, and your capacity and capability to affect change.

Implementing change often costs money! Resource mobilisation is generally a critical issue. The information obtained by completing the Municipal Finances workbook (11) should allow you to make sound judgements as regards the resources that you have available to implement policies, programmes and projects designed to improve access to infrastructure and services in such a manner that the EEG character of your town or city is strengthened.
4.6 Co-ordinating local and national policies

Experience has shown us that it is important to ensure that local and national initiatives to promote development (including EEG) are co-ordinated and reinforcing - for example fiscal devolution policies devised at the national level facilitating the provision of infrastructure and services at the local (town and city level).

National policy frameworks should complement and/or guide the local government agenda; care should be taken to ensure that they are not in conflict. So discuss your EEG strategy ideas with your national counterparts and see how national and local policies and initiatives can be aligned. Experience tells us that an ideal enabling environment will have both national and local interest and policies aligned, complementary and reinforcing.

The diagram opposite relates to the city of KANO in northern Nigeria and shows national policies and development strategies in relation to economic opportunities characterising the city. How can the national development strategies (and available resources) be used to support and enhance your EEG strategies?

Source: Dr Nicholas Miles, MSC Ltd, 2014

Toolkit to enable the promotion of Equitable Economic Growth. Cities Alliance - UNOPS
4.7 The importance of Gender Inclusion in EEG strategies

**Particular attention should be paid to gender inclusion in strategies designed to promote equitable economic growth.**

In urban areas, women and girls frequently face a range of difficulties, including discrimination within their household, within the labour market, and in regard to access to services. Inequalities facing urban women in informal settlements are often especially acute: poverty; overcrowding; sexual harassment and assault; and lack of access to security of tenure; water and sanitation; transport and health services.

Many studies have demonstrated that **gender equality is smart economics**; it can enhance economic efficiency and improve other development outcomes by removing barriers that prevent women access to education and employment opportunities. Furthermore, when women and men have equal chances to become socially and politically active, and shape policies, it is likely to lead to more inclusive institutions and to a better development path.

When analysing the data that you have collected **highlight how access of infrastructure and service public goods can be strengthened for women and girls** and how this strengthening is most likely to lead to accelerated equitable economic growth.
Attention should also be paid to the climate change impact resilience that can be built into EEG promoting strategies. It has become clear that climate change is leading to the increased frequency and intensity of extreme events (climatic disasters) and often leads to significant damage to economic activity (e.g. to agriculture), to both public and private investments, and can often lead to loss of lives.

Indeed, many now believe that for a number of countries climate change is biggest threat to achieving equitable and sustainable economic development. In Africa climate change is most likely to continue to have marked negative impacts due to the continent’s high vulnerability associated with an over-dependence on natural capital, and low adaptive capacities—institutional, technical and financial. The economic costs to African economies is estimated at 1.5 - 3% of GDP by 2030 and is forecast to rise, perhaps dramatically so.

Fortunately adaptation opportunities exist in almost all countries and cities (e.g. better transport and waste management; the introduction of low carbon energy production) and many of these adaptions can generate new economic activities and employment. EEG strategies should promote low-carbon ‘green’ growth, especially growth that is biased towards the working poor. When thinking about what EEG promoting policies to devise always consider the opportunities to move your economy to a low carbon energy one.
4.9 City Equitable Growth Assessment report: a template

Once you have completed the process of identifying and feasible policy options you need to produce a report (to be submitted to your city administration and can also be sent to your national government and donor partners). Given below is a template report structure that you may wish to follow:

1. **Executive Summary** *(for public distribution)*
2. **Introduction**
3. **Situational Assessment**
   - Infrastructure and services
   - The economy and your VISION for the future
   - The current policy framework
4. **The causes of inequality and non-inclusiveness**
5. **Constraints on EEG**
6. **Opportunities to promote EEG**
7. **The benefits of EEG for the City**
8. **The resources and policies of the city administration**
   - Financial strength
   - Economic development strategy
   - Policy options to promote EEG
9. **EEG enabling policy and project recommendations**
10. **EEG strategy implementation plan and costs**
11. **Next Steps** – Who makes what decisions to promote and secure EEG? *(responsibility assignment)*; how are the resources needed for the implementation plan to be marshalled?
This toolkit has been designed to help you identity the relationship between the provision of and access to infrastructure and service, and equitable economic growth - a form of growth that should be characterised by inclusiveness; a marked reduction in poverty; and an significant improvement in the quality of life as experienced by the working poor.

The ultimate aim of the toolkit is to help you devise policies the implementation of which will lead to the strengthening of equitable economic growth in your town or city.

The toolkit contains suggestions concerning how data is to be collected and analysed, and subsequently used to 'make policy'. The toolkit is not prescriptive. You can take these suggestions if you want, alter them, add to them and improve on them!

It is important to remember that this toolkit and accompanying workbooks can be used even if you don’t have much data or cannot collect much data due to resource limitations - the workbooks allow for this. As more data becomes available, however, the power of the toolkit will increase allowing you to devise policies with ever greater impact; of increasing value to you and your stakeholders.
ANNEX 1: description of the quantitative target and supporting indicators
## Target Indicator

The proportion of city population that has access to safely managed water drinking-water sources

The proportion of the population that uses piped, controlled drinking water that is affordable, free from contamination and in sufficient quantities to meet their basic needs. In the absence of locally specific indicators the following should be used as a rule of thumb: Affordability = less than 10% of household income; Quantity = 20 litres, per person, per day.

### Type and source of information

- Records held by the organisation responsible for delivering water (e.g. water company, or municipality [town / city] government)
- Survey data: Housing and Population Census or other Household Survey data that assess usage of water
- Level: City-wide; and/or by type of residence e.g. slum/non-slum

## Normative Indicator

The relationship between target supply of safely managed drinking water and actual supply

The total number of litres of safely managed drinking water delivered by the city on a daily basis expressed as a proportion of the target number of litres of safely managed drinking water that the city is trying to supply on a daily basis. This should be based on the recognised norm/standard that the city has agreed to provide e.g. national standard.

### Type and source of information

- Records held by the organisation responsible for delivering water (e.g. water company, or municipality [town / city] government)
- Survey data: Housing and Population Census or other Household Survey data that assess usage of water
- Level: City-wide; and/or by type of residence e.g. slum/non-slum
## WASH (Water)

<table>
<thead>
<tr>
<th>Supporting Indicators</th>
<th>Type and source of information</th>
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</table>
| 1. What proportion of households are officially connected to a piped mains water supply? The estimated number of households who pay for and receive a mains water connection e.g. connection to a system for distribution of water and are billed for a connection. | • Records held by the organisation responsible for delivering water (e.g. water company, or municipality [town / city] government)  
• Maps of the piped water mains network (City Engineer or city water board)  
• Level: City-wide; and/or by type of residence e.g. slum/non-slum |
| 2. What is the average monthly water tariff for improved water? ($/4m³) as a proportion of household income. The average cost of providing 4 cubic metres/month of water to a household from any improved source. The average cost of providing four cubic metres a month represents a subsistence level of provision e.g. 25 litres per capita per day for a family of five. Indicative tariff ranges from a cross-continent study from 2011 were $0.40/m³ to $0.80m³. Although context specific, water may be considered to be unaffordable where a household is spending in excess of 5% of their income on water. | • A breakdown of average monthly water tariff – resident’s survey; interviews with key personnel from the water board/company  
• Recent census, Household or Living Standards Measurement Survey an assessment of household income from all sources. A representative sample of households using a resident’s survey may be appropriate in the absence a recent city-wide household survey.  
• Level: City-wide; and/or by type of residence e.g. slum/non-slum |
| 3. How many hours per day do those connected to a piped water connection receive water? On average how many interruptions to their normal water supply could those receiving piped mains water expect for example through a lack of supply, lack of power, leakages etc. | • Records held by the organisation responsible for delivering water (e.g. water company, or municipality [town / city] government)  
• Level: City-wide; and/or by type of residence e.g. slum/non-slum |
### Target Indicator

**What proportion of city population is using safely managed sanitation services**

Safely managed sanitation services means: a basic sanitation facility (Flush toilet; Piped sewer system; Septic tank; Flush/pour flush to pit latrine; Ventilated improved pit latrine (VIP); Pit latrine with slab or a Composting toilet.

<table>
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<th>Type and source of information</th>
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<tbody>
<tr>
<td>• Administrative records on sources of safely managed water;</td>
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<tr>
<td>• Housing and Population Census or other Household Survey data that assess usage of water</td>
</tr>
<tr>
<td>• <strong>Level</strong>: City-wide; and/or by type of residence e.g. slum/non-slum</td>
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### Normative Indicator

**The relationship between the total amount of wastewater treated to the total amount of wastewater produced on a daily basis**

The total amount of wastewater in m$^3$ treated by the city on a daily basis expressed as a proportion of the total amount of wastewater produced on a daily basis.

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<tbody>
<tr>
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</table>
## Supporting Indicators

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| 1. | **What proportion of total households has (piped) waste water collection system?**  
The estimated total number of households that are officially connected to a piped, paid for wastewater collection system expressed as a percentage of the total number of households in the city.  
- **Maps of the piped water mains network** (City Engineer or city water board)  
- **Level**: City-wide; and/or by type of residence e.g. slum/non-slum|
| 2. | **What proportion of average household expenditure is spent on sanitation services?**  
The average expenditure at the household level on sanitation services either separately or as an itemised entry on their monthly water bill.  
- **A breakdown of average monthly water / sanitation tariff** – resident’s survey; interviews with key personnel from the water board/company; **recent census, Household or Living Standards Measurement Survey** an assessment of household income from all sources.  
- **Level**: City-wide; and/or by type of residence e.g. slum/non-slum|
| 3. | **The number of employees per connection to safely managed sanitation services**  
A measure of efficiency of the sanitation infrastructure - 2-3 efficient, 3-7 average; more than 7 overstaffed = inefficient service delivery.  
- **Sanitation providers operational reports or interview with key personnel.**  
- **Level**: City-wide; and/or by type of residence e.g. slum/non-slum|
## Target Indicator

**The proportion of solid waste that the city formally manages on a daily basis**

Of the total amount of domestic and commercial solid waste that is generated on daily basis what proportion of this is formally managed i.e. collected either door-to-door or from communal collection points by the city authorities (or those contracted to carry out solid waste management services by the city).

**Type and source of information**

- **Sources:** Solid waste collection vehicles reporting/monitoring information; city-wide waste characterisation studies that can be used to determine waste generation rates.
- **Level:** City-wide; and/or by type of residence e.g. slum/non-slum

## Normative Indicator

**The relationship between the total amount of solid waste that is safely managed and the total amount generated on a daily basis.**

The total amount of domestic and commercial solid waste that is generated on daily basis (kg per person) expressed as a proportion of that waste that is being safely managed on a daily basis.

**Type and source of information**

- **Sources:** Solid waste collection vehicles reporting/monitoring information; city-wide waste characterisation studies that can be used to determine waste generation rates.
- **Level:** City-wide; and/or by type of residence e.g. slum/non-slum
### Supporting Indicators

<table>
<thead>
<tr>
<th>Supporting Indicators</th>
<th>Type and source of information</th>
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</table>
| 1. The proportion of the city’s households have access to a formal solid waste management services  
The estimated number of households who are located in parts of the city that solid waste management services are provided either by the public or private sector expressed as proportion of the total number of households in the city. | • **Key informant interviews** (City Engineer or city sanitation board)  
• **Level:** City-wide; and/or by type of residence e.g. slum/non-slum |
| 2. Proportion of household income spent on solid waste management services  
The average monthly expenditure at the household level on solid waste management services as a proportion of the average monthly household income. | • **Recent census, Household or Living Standards Measurement Survey** an assessment of household income from all sources.  
• A representative sample of households using a resident’s survey may be appropriate in the absence a recent city-wide household survey.  
• **Level:** City-wide; and/or by type of residence e.g. slum/non-slum |
| 3. Proportion of domestic solid waste that is safely disposed in a safe manner  
Of the total amount of domestic and commercial solid waste that is generated on a daily basis what proportion of this is safely disposed of? Safely disposed of in this context means reused, recycling, controlled recovery of energy, controlled incineration, and/or controlled final disposal at a controlled landfill. | • **Municipal records:** landfill records, solid waste collection vehicles reporting/monitoring information; city-wide waste characterisation studies that can be used to determine waste generation rates/recycling rates  
• **Level:** City-wide; and/or by source of waste: residential; commercial |
### Power

<table>
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<tr>
<th><strong>Target Indicator</strong></th>
<th><strong>Type and source of information</strong></th>
</tr>
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</table>
| **Percentage of the population with access to a modern source of electricity**  
The proportion of the population who are connected to a modern source of energy divided by the total population of the city, expressed as a percentage. *Modern energy is defined as household access to electricity and clean cooking facilities.* |  
| **Sources:** Recent Population and Housing census or household survey (LSMS or similar); representative sample survey using community or residents groups.  
| **Levels:** city-wide; non-slum, slum; female headed households, male headed households. |

<table>
<thead>
<tr>
<th><strong>Normative Indicator</strong></th>
<th><strong>Type and source of information</strong></th>
</tr>
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</table>
| **The relationship between the total amount of energy supplied to the city on a daily basis and the normative standard of energy that the city hope to supply.**  
The total amount of energy in kwh/mwh that is supplied to the city on a daily basis expressed as a proportion of the norm/standard amount of energy that the city would hope to supply. Local/appropriate standard to be used where one exists. |  
| **Sources:** Recent Population and Housing census or household survey (LSMS or similar); representative sample survey using community or residents groups.  
| **Levels:** city-wide; non-slum, slum; female headed households, male headed households. |
## Energy

### Output Indicator

**Percentage of the population with access to a modern source of electricity**
The proportion of the population who are connected to a modern source of energy divided by the total population of the city, expressed as a percentage. *Modern energy is defined as household access to electricity and clean cooking facilities.*

### Type and source of information

- **Sources:** Recent Population and Housing census or household survey (LSMS or similar); representative sample survey using community or residents groups.
- **Levels:** city-wide; non-slum, slum; female headed households, male headed households.

### Supporting Indicators

1. **Percentage of population (%) formally connected to the mains electricity grid?**
The proportion of households that are formally connected to the mains electricity grid (i.e. receive an electricity bill from the official electricity supplier(s) divided by the total number of households in the city.

### Type and source of information

- **Sources:** Electricity supplier records; recent Population and Housing census or household survey (LSMS or similar); representative sample survey using community or residents groups.
- **Levels:** city-wide; non-slum, slum; female headed households, male headed households.

2. **Proportion of household expenditure on electricity/energy?**
The proportion of the average monthly household expenditure on power expressed as percentage of total monthly income. A benchmark of 5% of household income is recommended as a broad measure of affordability although it is acknowledged that household income and expenditure may vary considerably within and between cities.

### Type and source of information

- **Sources:** Electricity supplier records; recent Population and Housing census or household survey (LSMS or similar); representative sample survey using community or residents groups.
- **Level:** City-wide; type of business (formal/informal); size of business small/large.

3. **How many hours per day do those connected to the mains grid receive power?**
On average how many hours per day do those households paying for a modern electricity supply receive a service. Expressed as a proportion of the total number of days divided by 24.

### Type and source of information

- **Sources:** Electricity supplier records; recent Population and Housing census or household survey (LSMS or similar); representative sample survey using community or residents groups.
- **Levels:** city-wide; non-slum, slum; female headed households, male headed households.
### Health facilities and services

#### Target Indicator

<table>
<thead>
<tr>
<th>Proportion of births attended by skilled health personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>The total number of births attended by a physician, nurse, or midwife expressed as a percentage of the total number of live births. General indicator of overall access to healthcare services. Globally the average is around 70% of women. Attendance at birth by skilled health personnel impacts both maternal and child mortality rates.</td>
</tr>
</tbody>
</table>

#### Type and source of information

- **Sources:** Register of births; Visits by skilled health care personnel - Public Health records; Interviews with women – statistically significant sample through household survey
- **Levels:** city-wide; slum/non-slum; administrative parcels e.g. districts/wards

### Supporting Indicators

1. **Number of in-patient hospital beds per 100,000 population**
   - The number of inpatient hospital or clinic beds divided by the city population multiplied by 100,000. The number of in-patient public hospital beds is one of the few easily available indicators which monitor the level and quality of a health service.

#### Type and source of information

- **Public health records**
- **Asset inventories of public buildings**
- **key informant interviews with Ministry/Department of Health officials**
- **Levels at which data to be collected:** city-wide

2. **Out-of-pocket expenditure as a proportion of total public expenditure on health**
   - This is an indication of the proportion of total health care costs met by individual households as opposed to costs covered by the public purse – Out-of-pocket expenditure is defined as direct payment made to healthcare providers by individuals at the time of service use, i.e. excluding prepayment for health services – for example in the form of taxes or specific insurance premiums or contributions – and, where possible, net of any reimbursements to the individual who made the payment.

#### Type and source of information

- **Public expenditure on hospitals as a proportion of total running costs; remittances from the public received for medical treatment/medicines etc.**
- **Department of Health budgets**
- **Sample Household survey**
- **Levels:** city-wide; slum/non-slum; administrative parcels e.g. districts/wards

3. **Measles (MCV) immunisation coverage amongst 1 year old (%)**
   - The percentage of children under one year of age who have received at least one dose of measles-containing vaccine in a given year. Immunization is an essential component for reducing under-five mortality. Immunization coverage estimates are used to monitor coverage of immunization services and to guide disease eradication and elimination efforts. It is a good indicator of health system performance

#### Type and source of information

- **Average household income:** Recent DHS/LSMS survey at city-level OR;
- **Household survey - a statistically significant sample of households:** household survey data or focus group discussion
- **Levels:** by residence (slum/non-slum); administrative parcels e.g. districts/wards
## Educational facilities and services

<table>
<thead>
<tr>
<th>Target Indicator</th>
<th>Type and source of information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary School Survival Rate</strong></td>
<td>• <strong>School records</strong> - Education Board/Ministry of Education;</td>
</tr>
<tr>
<td>Percentage of students completing primary education. completion is measured by the Gross Intake Ratio, which is the total number of new entrants who reach the last grade of primary education, regardless of age, expressed as percentage of the total population of the theoretical entrance age to the last grade of primary.</td>
<td>• <strong>Population and Housing Census/LSMS survey</strong> or similar;</td>
</tr>
<tr>
<td></td>
<td>• <strong>Levels</strong>: city-wide; by residence (slum/non-slum); gender</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Indicators</th>
<th>Type and source of information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Number of schools per 100,000 population</strong></td>
<td>• School records /municipal budget - Education Board/Ministry of Education;</td>
</tr>
<tr>
<td>The total number of schools provided in the city divided by the total population of the city multiplied by 100,000. A proxy for the number of available school places available within the city.</td>
<td>• Population and Housing Census/LSMS survey or similar;</td>
</tr>
<tr>
<td></td>
<td>• <strong>Levels</strong>: city-wide; by residence (slum/non-slum)</td>
</tr>
</tbody>
</table>

**2. Out-of-pocket expenditure as a percentage of total public expenditure on education**

An indication of the likely proportion of total education service costs met by individual households as opposed to the public purse. Could be calculated on a per capita basis and compared to average levels of household income.

- Department of Education records; Public expenditure on education services as a proportion of total running costs; remittances from the public received for student fees - Department of Education budgets - Ministry/Department of Education records
- **Levels**: city-wide; by residence/district

**3. Average pupil teacher ratio (by level)**

The number of enrolled students in primary (secondary, tertiary) education per teacher. This is a useful indicator for measuring the reliability of inputs to educational services by government. A high pupil to teacher ratio may indicate that the quality of education and hence educational performance/outcomes may be at risk.

- City/State budget for education expenditure; School records /municipal budget - Education Board/Ministry of Education; Population and Housing Census/LSMS survey or similar;
- **Levels**: city-wide; by residence; by district
## Connectivity (including public transport)

### Target Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Type and source of information</th>
</tr>
</thead>
</table>
| Paved Road density | • Records from relevant Municipal Department  
• Maps of the city e.g. land-use map of the city; street map of the city; planning standards for the city i.e. a master plan  
• Land planning/registration records that indicate the amount of land formally released for road infrastructure works  
• Levels: city-wide; slum/non-slum; administrative parcels e.g. districts/wards |

Comparisons over time and between countries require some caution although national road density scores are typically available.

### Core Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Type and source of information</th>
</tr>
</thead>
</table>
| 1. Proportion of all roads in the city that are paved | • Maps of the city e.g. land-use map of the city; street map of the city; planning standards for the city i.e. a master plan  
• Land planning/registration records that indicate the amount of land formally released for road or transportation infrastructure works  
• Levels: city-wide; type of vehicle e.g. motorcycling/3-wheeler’ minibus; large bus; gender |

The proportion of total road infrastructure that has paved surfacing – as opposed to dirt or unsealed roads. This is a measure of the quality of the road infrastructure. Increased coverage of a decent, all weather road network is likely to indicate better year round connectivity between the places where people work and where they live.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Type and source of information</th>
</tr>
</thead>
</table>
| 2. Public transport accessibility index | • Average household income: Recent LSMS survey at city-level OR;  
• Household survey - a statistically significant sample of households: or focus group discussion  
• Levels: city-wide; by place of residence; gender (household head) |

Indicates average household’s expenditure on transport to work costs per month as proportion of total average monthly household income. The cost of 60 trips (10km single trip) is expressed as a proportion of the monthly income of an average person in a city and the average person in the bottom quintile of income distribution.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Type and source of information</th>
</tr>
</thead>
</table>
| 3. Percentage of paved road network in good and fair condition* (% of Total Road Network) | • Maps of the city e.g. land-use map of the city; street map of the city; planning standards for the city i.e. a master plan  
• Land planning/registration records that indicate the amount of land formally released for road or transportation infrastructure works  
• Levels: city-wide; by place of residence; gender (household head) |

Road network in good or fair condition is the length of the city road network, including the interurban classified network without the urban and rural network, that is in good or fair condition, as defined by each country’s road agency.
### Target Indicator

<table>
<thead>
<tr>
<th>Proportion of the urban population living in slums or informal settlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proportion of the urban population living in slums (as per the UN-HABITAT definition found below). Note this is can be used a general indication as to the extent to which the city has failed to adequately supply land for affordable housing.</td>
</tr>
</tbody>
</table>

### Type and source of information

- Maps of the city e.g. land-use map of the city; street map of the city; planning standards for the city i.e. a master plan
- **Land planning/registration records** that indicate the amount of land formally released for road or transportation infrastructure works
- **Field survey combined with household survey** to establish average household sizes in non-slum/slum locations.
- **Levels**: City-wide; administrative parcels e.g. districts/wards; female/male headed households.

### Core Indicators

<table>
<thead>
<tr>
<th>Core Indicator</th>
<th>Type and source of information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The proportion of city land subject to a formal land registration system</td>
<td>The proportion of the total land available within the area officially defined as the city which is registered on an official land registration system. For example, parcels of land that are registered and available for allocation via an official registration system.</td>
</tr>
<tr>
<td>2. Cost to comply with every procedure officially required or needed in practice to transfer the ownership of land</td>
<td>The cost expressed as a proportion of the value of the property that it would take to complete all procedures – e.g. interactions between buyer and seller, their agents, external parties including government agencies, inspectors, notaries and lawyers. The World Bank’s Doing Business Survey provides national benchmark indicators of cost to transfer land.</td>
</tr>
<tr>
<td>3. Number of building permits issued per 100,000 population.</td>
<td>The total number of building permits issued by the municipal government over a 12 month period divided by the total population of the city, multiplied by 100,000. This indicator is designed to measure the reliability or effectiveness of the formal building control service.</td>
</tr>
</tbody>
</table>
## Municipal Finances

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Operating ratio</strong></td>
<td>Total operating revenue expenditure divided by total operating revenue income expressed as a percentage.</td>
</tr>
<tr>
<td><strong>2. Capital Utilisation Ratio (CUR)</strong></td>
<td>The ratio of total capital income to total capital expenditure. Example of capital income could be from the sale of municipal property, grants or loans which are allocated for capital expenditure e.g. investment in water, sewerage road, power infrastructure etc. CUR is a measure of your city’s capital adequacy - its ability to finance its capital expenditure commitments from capital income. Ratios in excess of 100% suggest that your city will be unable to meet capital expenditure commitments through capital budgets alone.</td>
</tr>
<tr>
<td><strong>3. Debt Service ratio (DSR)</strong></td>
<td>Debt service ratio refers to the ratio between the amount owed in servicing (paying down) debts and the total amount of non-tax revenue e.g. rent form municipal properties, water charges, fines and fees etc. DSR reflects the debt burden in relation to recurrent annual resources potentially available to cover debt service. If DSR is high this may mean that the municipality has taken too much debt but it could also mean that it is aggressively paying down debt to avoid interest costs. Whilst a low debt ratio could indicate that the municipality’s finances are in order it could also mean that capital projects have been deferred infrastructure has been allowed to deteriorate.</td>
</tr>
</tbody>
</table>
### Municipal Finances

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Own Source Revenue to Assigned Revenue/Own Source Revenue to Total Revenue</td>
<td>The ratio of total non-tax revenue to total grants and contributions. This is a measure of how much the municipality is reliant on external sources of income for example those controlled by central/state governments – motor vehicle taxes; government grants etc. A low ratio here suggests the municipality has a weak local base on which to generate revenue or perhaps have little or no control over tax rates that they can levy. This indicator measures ‘self-sufficiency’.</td>
</tr>
<tr>
<td>5. Ratio of capital expenditure to operating expenditure (or total expenditure)</td>
<td>The total expenditure on capital projects expressed as a percentage of operational (revenue) expenditure. This ratio compares a municipality’s total investment on goods that have a useful life of more than one year to operational expenditure such as roads, buildings, street lights etc. A lower ratio (e.g. less than 10%) may imply that the municipality is investing less in ‘asset’s related to the delivery of public goods or services. A higher ratio (over 20%) suggests a municipality is actively investing in improving service delivery (access to public goods), but may bring greater risks to financial stability if the infrastructure being invested in is not revenue generating.</td>
</tr>
<tr>
<td>6. Operational surplus to total revenue</td>
<td>Total operating revenue minus total operating expenditure expressed as a proportion of total revenue. This indicator demonstrates the extent to which a municipality is generating a surplus in its operating budget. Municipalities should at least recover operational costs for the services being delivered. Norm is equal or greater to 0%.</td>
</tr>
</tbody>
</table>
ANNEX 2: community survey template
A community scorecard for public goods and services

As a provider or regulator of public goods and services, you will already have gathered lots of information about the nature of access to those services. You may feel that you have a clear picture of how well or how badly public services are being delivered in your city. However, it is always a good idea to get feedback from those closest to the impacts or benefits of accessing public goods – the service users. Giving members of the public the opportunity to ‘score’ the affordability and reliability of the access to various public services will provide a complimentary perspective.

Although the workbooks provide much factual information on service provision, standards, pricing, reliability and efficiency a community scorecard will highlight public perceptions of access to services. This is not only important for improving the quality of the economic analysis of all of the data that you have collected, but also serves to bring the concerns of consumers of public goods and services to those responsible for delivering them. This is an end to improving overall urban governance which has been shown to improves the equality of overall economic growth.

In a city where multiple stakeholders control various public goods a community scorecard also provides a good ‘check and balance’ as to the quality and accessibility of those services.
ANNEX 3: business survey template
### A. Background

<table>
<thead>
<tr>
<th>A1. What sector are you in? (tick appropriate box)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Manufacture</td>
</tr>
<tr>
<td>2. Transport</td>
</tr>
<tr>
<td>3. Trading</td>
</tr>
<tr>
<td>4. Business / Professional Services</td>
</tr>
<tr>
<td>5. Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A2. Legal form of Business (tick appropriate box)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sole Proprietorship</td>
</tr>
<tr>
<td>2. Partnership</td>
</tr>
<tr>
<td>3. Family Business</td>
</tr>
<tr>
<td>4. Limited Liability Company</td>
</tr>
<tr>
<td>5. Informal Sector Business</td>
</tr>
<tr>
<td>6. OTHER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A3. Date established</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR</td>
</tr>
</tbody>
</table>

### B. Employment and Human Resources

<table>
<thead>
<tr>
<th>B1. How many people in total (permanent and casual) you employ at present? (2 casual persons equal one permanent person)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage you consider to be skilled (Men / Women)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
</tr>
<tr>
<td>Women</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B2. Is the number you employ today more or less than the number you employed in the last 2 years? (tick appropriate box)</th>
</tr>
</thead>
<tbody>
<tr>
<td>If More - how many more? (tick box)</td>
</tr>
<tr>
<td>If Less - how many less? (tick box)</td>
</tr>
<tr>
<td>Stayed the same (tick the box)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B3. If employment numbers increased over past 2 years - why?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B4. If employment numbers decreased over past 2 years - why?</th>
</tr>
</thead>
</table>
C. Business Expectations

C1 How do you expect that your business will change over the coming 2 years (tick appropriate box)

- Increase in trade / turnover
- Decrease in trade / turnover
- Stay the same

why? Briefly specify

C2 On a scale of 1-5 (1 very good and 5 very bad) please rate the following (circle the appropriate number)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Very Good</th>
<th>Very Bad</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 2 3 4 5</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1 2 3 4 5</td>
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<tr>
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<td>1 2 3 4 5</td>
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<td>13</td>
<td>1 2 3 4 5</td>
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</tr>
<tr>
<td>14</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Do you use electricity from the grid?)
- yes
- no

(Do you use a generation set?)
- yes
- no

- Conditions of the roads in TEMA
- Affordability and reliability of public transport
- Traffic congestion in TEMA
- The water supply to your business
- The electricity supply to your business
- The drains around your business
- Collection of solid waste around your business
- The security situation in your city
- Government assistance for your business
- Supply of labour / workers
- Workers available with required skills
- Demand for the products of your business
- The costs of raw materials
- Transport connections to other cities
- International transport connections
- Accessibility to local health services
C3 What is the single most important problem / constraint that you face conducting your business? Why is this problem / constraint so important to you?

Describe the Constraint:

How does this constraint affect your business?

C4 What is the single most important thing that has to happen for your business to expand? (e.g. need more customer / need money to expand / need better supply of electricity)

C5 What is good about doing business in TEMAN / what are the advantages of TEMAN for businesses like yours?

C6 On a scale of 1 to 5 - How would you currently rate the city as a place for your business to succeed?

<table>
<thead>
<tr>
<th>Very Good</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Very Bad</th>
<th>5</th>
</tr>
</thead>
</table>

C7 What do you expect your turnover to be next year?

C8 What was the total wage bill last year (for all your employees)

C9 Please tell me the number of electrical outages that you experience in a typical month

C10 Duration of typical electrical outage (in Hours)

C11 Do you expect to give a gift in order to get:

(1) an operating licence  YES  NO
(2) a construction permit  YES  NO
(3) electricity connection  YES  NO
(4) water connection  YES  NO

D. Inputs and Outputs

D1 From where do you get the materials you use in your business (give percentage of total in the box - estimate percentage to nearest 5%)

1. Local to your City
2. Beyond the City but within the State
3. Beyond the State but within the country
4. From Overseas
5. TOTAL

D2 In terms of business costs (your expenditure) what percentage is spent on

1. Salaries / wages
2. Utilities (Power, Water)
3. Transportation
4. Local taxes and fees
5. Raw material
6. Other
7. TOTAL

100%
**E. Technology Innovation and Growth**

<table>
<thead>
<tr>
<th>Question</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have access to the internet?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does your company have a website?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you use email to contact your customers and/or suppliers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you introduced any new technology (e.g., new and modern equipment) over the last 2-3 years?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **No**  
  - Go to E4

- **Yes**  
  - Briefly describe the nature / type of technology you introduced:
    - Briefly state the impact of the technology (e.g., enabled increased production and or productivity; enabled improved product quality; enabled increased exports)

---

**E5**  
Do you plan to introduce any new technology (e.g., new and modern equipment) over the coming 2-3 years?

- **No**  
  - Is the introduction of technology and innovations to your business something you would consider, especially if the benefits of new technologies and innovations were fully explained to you?
  - No Interest | Yes Interested

- **Yes**  
  - Briefly describe the nature / type of technology to be introduced
  - Briefly state why you want to introduce this new technology
  - Is there anything hindering or preventing you from introducing this new technology (e.g., lack of finance, uncertain market demand for your products, etc.)?

---

**E6**  
What do you consider to be the two most important competitive advantages of your business (what makes your business different from your competition)?

---

**F. Role of Government**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 What in your opinion is the single most important thing that the State Government could do or stop doing in order to help your businesses in TEMA grow?</td>
<td></td>
</tr>
</tbody>
</table>

---

**F2**  
Any final comments you would like to make concerning how TEMA City can be improved?

---

**END OF SURVEY - THANK YOU**