



DATA TOOLS

DATA ANALYSIS

For data-based decision making

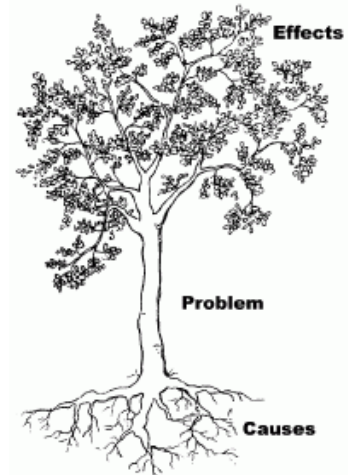
This tool shows four alternatives to ensure that the collected data informs decision making for slum upgrading. These tools can be used in workshops, consultations with stakeholders and other events to ensure participatory data analysis and informed decision making. Tools and the format for presentation should be tailored to the stakeholder group targeted by the data analysis exercise, which can include the Country Team, slum dwellers, etc.

Data analysis is key in several steps for slum upgrading: to extract the key information gathered in the profiling and situation analysis to inform the development of strategies for slum upgrading or policy and legislation reviews, the analysis of needed and available resources to inform financing strategies or the collection and analysis of data at neighbourhood level enabling prioritise physical interventions or develop neighbourhood maps. Whenever data is collected, the analysis of this data will ensure that the decisions taken afterwards are based in the evidence gathered.

Problem tree analysis

WHAT?

The problem tree analysis is a technique that allows the cause and effect relationships associated with the problems of the identified intervention areas to be systematically explored and analysed. It is an analysis tool that advantageously can be used in group work, since it facilitates discussions and a collective work process towards understanding a problem. The output is a graphical arrangement of problems differentiated according to 'causes' and 'effects,' joined by a core, or focal, problem.



WHY?

This tool assists in analyzing an existing situation by identifying the major problems and their main causal relationships. To create effective strategies for slum upgrading and prevention a full understanding of the current problems is necessary. Strategies targeting the effects are reactive strategies, and strategies addressing the causes take a more preventive approach to the problem. Strategies need to address both the effects of the problem and the causes of the problem; hence a problem tree analysis is important. It can be used during the Participatory Settlement Planning Workshop session on problems identification.

HOW?

During a work session with the Stakeholder Working Group the following are core steps that help in doing a problem tree analysis. The outcome represents the collective thinking of the participants. The generic steps include:

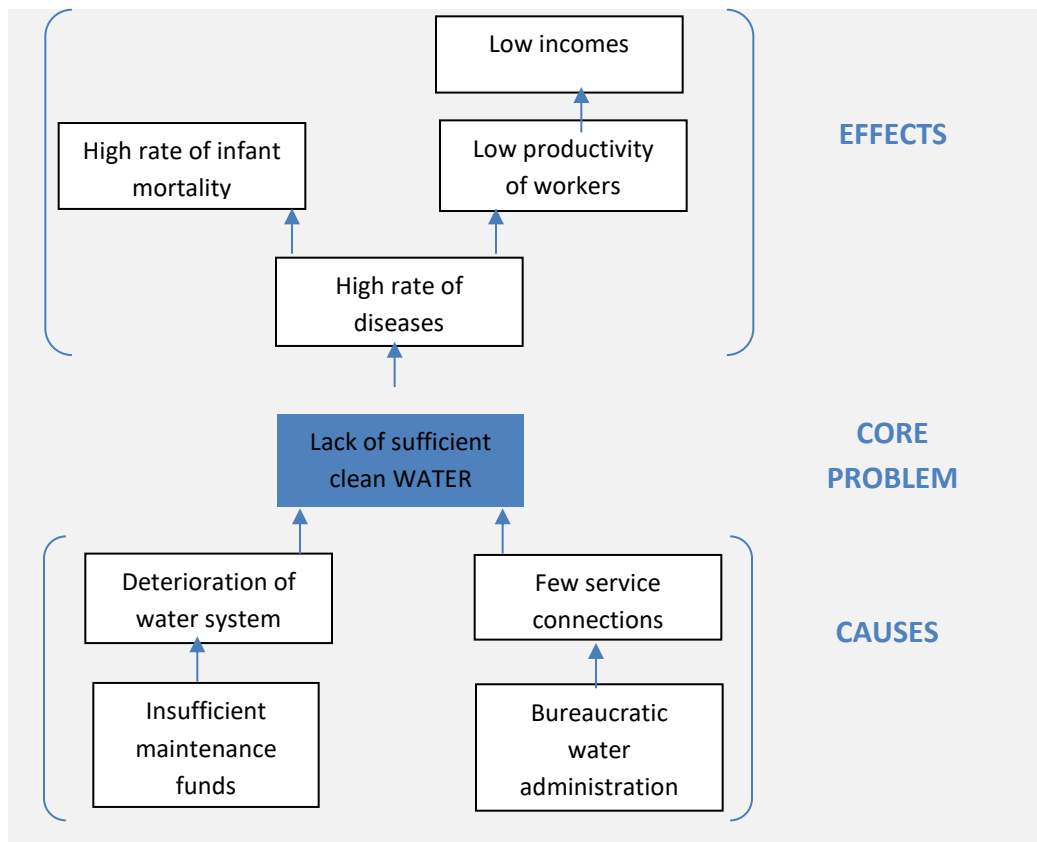
1. Familiarize yourselves with the available information: the Citywide Slum Situation Analysis and the Policy and Regulatory Review.
2. Rephrase the intervention you are working with into an overall problem. For example, if your intervention area is access to water, then your problem would be lack of access to water.
3. Draw a tree on a large piece of paper, write problem by the trunk, effects in the top of the tree, and causes among the roots of the trees. The tree is your analogy in this exercise to help you fully understand the issues associated with the problem.
4. Write your problem next to the trunk. In this example, lack of access to water in the slums.
5. Brainstorm, discuss and write down all effects of the problem. Ask yourselves: What does your problem lead to? Use of cards - one effect per card - makes the tool useful for group participation in a workshop setting.
6. Brainstorm, discuss and write down all causes of the problem. Ask yourselves: What is it that creates your problem? What are the root causes of your problem? Use of cards - one cause per card - makes the tool useful for group participation in a workshop setting.
7. Summarize and highlight the most important findings in terms of causes and effects of your problem.

The 'problem tree' is often followed by an 'objectives tree.' The problems are converted through simple rewording into specific objectives, and the chart then shows a 'means-ends' relationship. For example, 'lack of sufficient water' becomes 'improve water supply.' These objectives then provide a basis for project and program definition.

Because the 'problem tree' is never static and seldom - if ever - the same for different groups and at different times, it is more a device to broaden thinking than as a definitive project determinant. For example, 'lack of sufficient water' could either be a 'cause' or an 'effect,' depending on the situation and participating group, and the project objectives and tasks would be different for each.



Figure 1. Example of a problem tree analysis on lack of clean water



Further references:

- The SCP Source Book Series, Volume 4: Formulating Issue Specific Strategies and Action Plans

SWOT analysis as a tool for definition of strategies

WHAT

A SWOT analysis is a structured planning tool for evaluating the strengths, weaknesses, opportunities and threats of a particular development situation as part of a strategic planning process. The elements of the SWOT analysis can be explained as follows:

- **Strengths:** are helpful internal characteristics of the intervention area that give it advantages
- **Weaknesses:** are harmful internal characteristics of the intervention area that place it at a disadvantage
- **Opportunities:** are *external* elements that could be exploited to the advantage of the intervention area
- **Threats:** are *external* elements in the environment that could cause trouble for within the intervention area

Table 1: Elements of the SWOT Analysis

	Helpful	Harmful
Internal	STRENGTHS Positive, to maintain, to build upon and leverage	WEAKNESSES Limiting to development, need to be stopped
External	OPPORTUNITIES Good for future development, prioritize and optimize them	THREATS Bad for future development, need to be addressed now

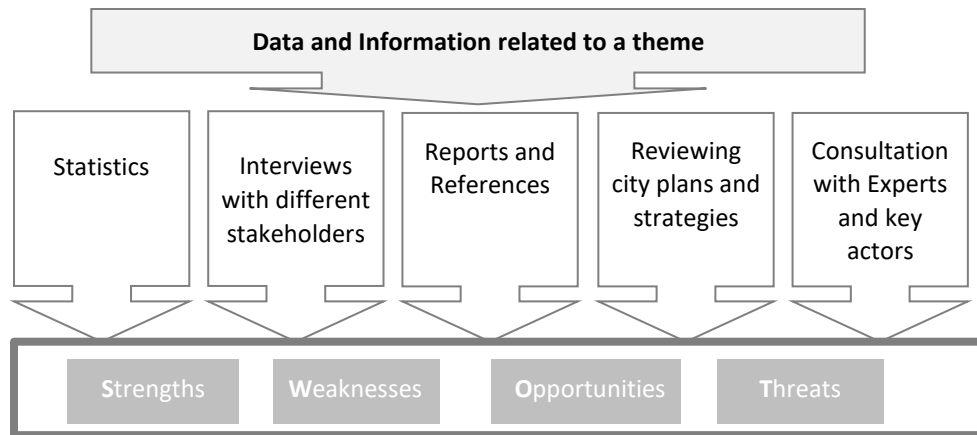
WHY

The SWOT analysis helps to map a development situation as part of a strategic planning process. It assists in taking the step from an understanding of the current situation to formulating strategic actions to improve the current situation. It generates strategic alternatives for tackling the situation and filters and organizes information.

HOW

The following are key steps to undertake collectively in the Stakeholder Working Groups to use a SWOT analysis to formulate strategic actions connected to intervention areas

1. **Read background information:** Familiarize yourselves with the available information and update yourselves on the clarified problems and visions in your intervention area.



2. **Elaborate on the SWOT:** Extract information related to the studied intervention area from the Citywide Slum Situation Analysis and the Policy and Regulatory Review. Brainstorm, discuss and organize the relevant information into Strengths, Weaknesses, Opportunities and Threats of the intervention area. See Table 2 for an example of a start of a SWOT analysis - there are definitely a lot more strengths, weaknesses, opportunities and threats to bring up in a real and thorough SWOT analysis.

Table 2: A short example of a SWOT analysis

		Intervention area: <i>REGULATORY FRAMEWORK AND INSTITUTIONAL SET-UP OF HOUSING</i>	
		Helpful	Harmful
Internal		<p style="text-align: center;">STRENGTHS</p> <ul style="list-style-type: none"> • The Housing (Statutory and Improvement Areas) Act deals with squatter settlements • Council works in partnership with community organizations and NGOs in the development of unplanned settlements. 	<p style="text-align: center;">WEAKNESSES</p> <ul style="list-style-type: none"> • The act only grants the developer ownership of the improvements made on a piece of land while the council retains ownership of the land. • Council lacks capacity to effectively implement development policies and enforce building regulations.
		<p style="text-align: center;">OPPORTUNITIES</p> <ul style="list-style-type: none"> • Review of the act in order to make it responsive to development issues such as provision of secure tenure through land ownership • Donor support for development of regularized unplanned settlements. 	<p style="text-align: center;">THREATS</p> <ul style="list-style-type: none"> • Political interference cadres in enforcement of the act and unchecked illegal land allocations in unplanned settlements by political cadres affect development in legalized informal settlements. • External support is not sustainable.
External			

3. **Formulate strategic actions:** Create strategies towards achieving the vision and addressing the problems in the intervention area, based on the identified strengths, weaknesses, opportunities and threats. This is the act of looking at the SWOT and

creatively create strategies that use the strengths and build on the opportunities to mitigate the threats and minimize the weaknesses. Figure 1 explains how to think about combining the different SWOT elements to elaborate on strategic actions. Figure 2 is an example of that. Table 3 gives some examples of strategic priority actions.

Figure 1: Combining the elements of a SWOT to create strategies

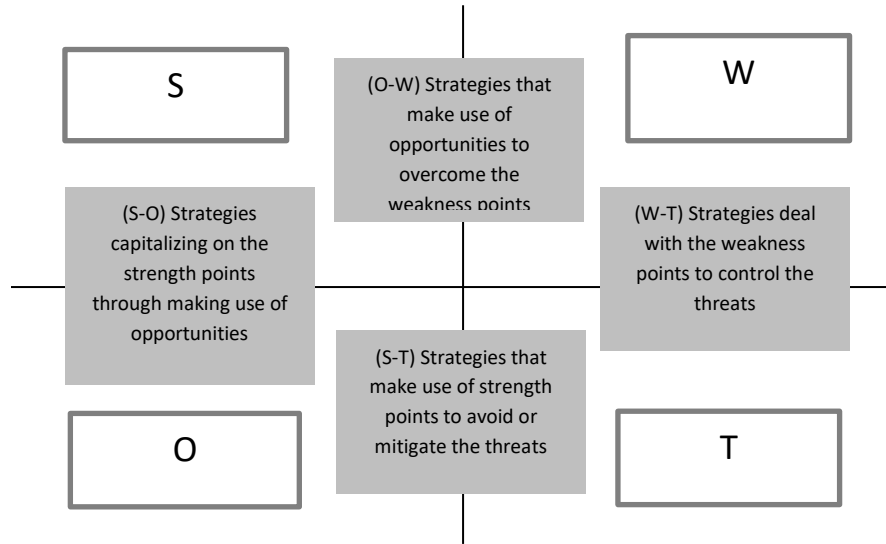
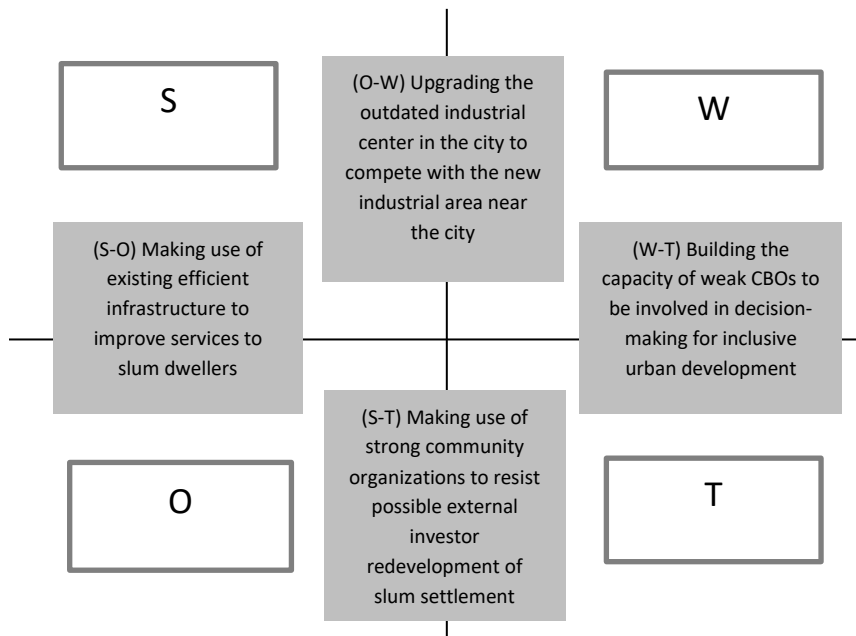


Figure 2: A short example of combining the elements of a SWOT to create strategies



Pair wise ranking

WHAT?

Pair wise ranking is a tool used to prioritize activities by evaluating them against each other.

WHY?

This tool is useful to prioritize actions as it enables to select which activities can have a higher impact.

HOW?

The prioritisation of activities can be done in participatory manner engaging the relevant stakeholders. As it is a visual tool it can be helpful in workshops.

Table 1: Pair Wise Ranking

	Activity 1	Activity 2	Activity 3	Activity 4	Activity 5	Activity 6
Activity 1						
Activity 2						
Activity 3						
Activity 4						
Activity 5						
Activity 6						

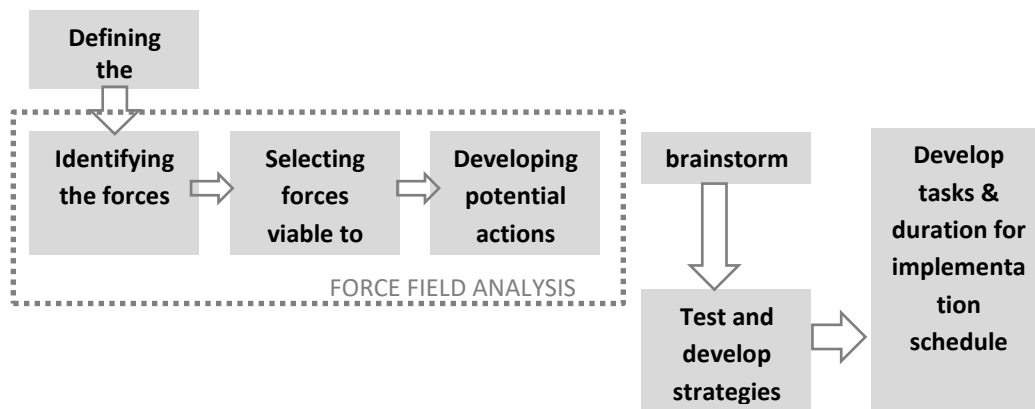
e.g. activity 3 is priority as it links to many other activities.

Force field analysis

WHAT?

The force field analysis is a tool to identify the constraints and opportunities to reach an objective. It can be used in action planning for the definition of City-Wide Slum Upgrading Strategies and in general when defining Logical Framework Analysis and identifying the objectives of interventions and concrete actions to achieve these objectives.

Figure 1. Force field analysis in the planning cycle



WHY?

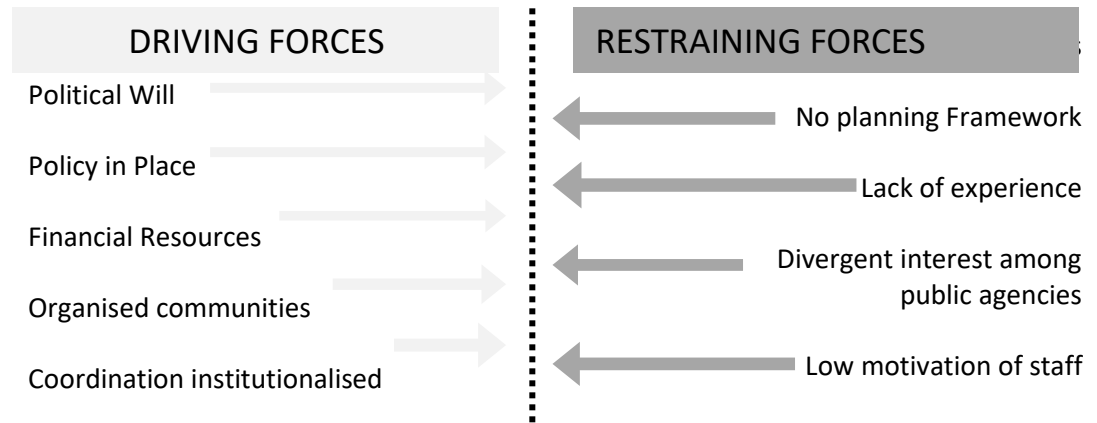
The force field analysis is a tool to identify the constraints and assess if they can be addressed and if the opportunities can be leveraged. This analysis will lead to the identification of concrete action which will be integrated in the Logical Framework analysis and in the workplan and will contribute to the impact of the actions.

HOW?

The steps to conduct a force field analysis are:

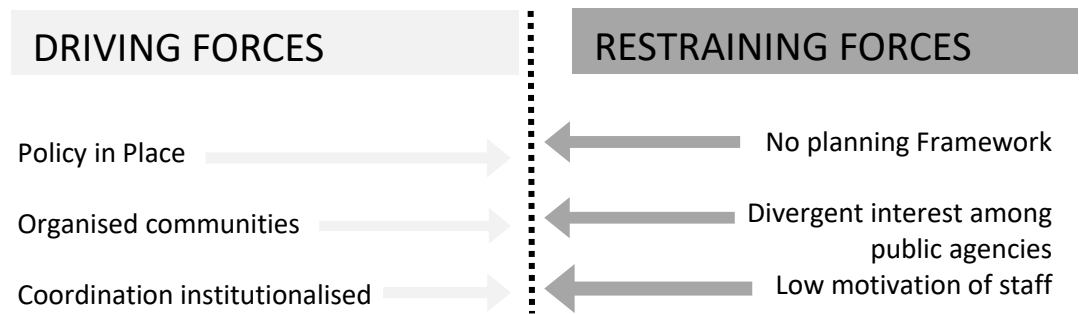
1. Identify the objective.
2. Identify the driving and restraining forces to achieve the objective set.

Figure 2: Identify the driving and restraining forces



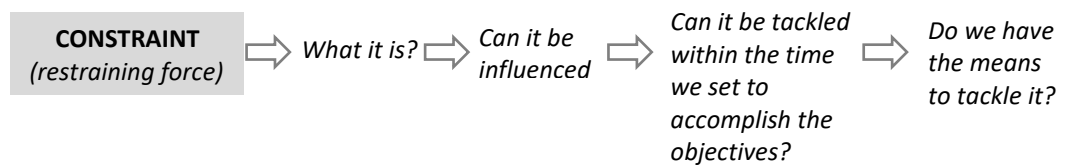
3. Filter forces: Which are the most significant

Figure 3: Identify the most significant forces to focus the actions



4. Address the constraints:

Figure 4: questions to identify which constraints should be addressed.



5. Develop actions