



# UGS Results-Based M&E

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# M&E: What it is

- A powerful public management tool that can be used to help policymakers and decisionmakers track progress and demonstrate the impact of a given project, program, or policy (WB, 2004) (Kuzek and Rist, 2004).
- The process of gathering pertinent information that can help in determining the development of an undertaking and/or project and adjusting the identified areas for improvement (FAO, 2021).
- A continuous management function to assess if progress is made in achieving expected results, to spot bottlenecks in implementation and to highlight whether there are any unintended effects (positive or negative) from an investment plan, program or project and its activities (FAO).

# Monitoring and Evaluation

## Monitoring

A continuous process of data collection and analysis to check whether a project is running according to plan and to make adjustments if required. It is an evaluative study directed to the short term.

## Evaluation

A systematic process of collecting and analyzing information about activities and results of a project in order to determine the project's relevance and/or to make decisions to improve the efficiency and effectiveness of a project.



# Monitoring and Evaluation: Compared

- Monitoring focuses on data collection
- Monitoring is the ongoing, systematic collection and analysis of data as a project progresses.
- It is aimed at measuring progress towards the achievement of program objectives and expected outcomes or results.
- Evaluation analyses this data. Evaluations can focus on relevance, efficiency, effectiveness, outcome and sustainability (i.e. long-term change).
- Evaluation is intended to go beyond measurement to ask the higher order questions such as whether the intervention is worth it, or if it could have been achieved more effectively in another way.
- Evaluations are also an opportunity to reassess the intention of greening programs and to determine who or what is benefiting from them.

# Importance of UGS M&E

- Allows an assessment whether the intervention provides the intended benefits
- Provides feedback about certain population groups that benefit from UGS whether positively or could even be negatively affected by unintended side-effects
- These 2 primary objectives allow government and decision makers to adjust program plans and address intervening circumstances not considered early on during the planning stage of the UGS

# Urban Ecosystems Dynamics

Urban landscapes are dynamic systems and their form, use and management change over time.

M&E needs may also change over time, reflecting the age of the urban greenery landscape; changes in biophysical conditions, risks and threats; changes in populations, demographics and uses; and management capacities.

Establishing pre-existing or baseline site data to allow assessment over time and to evaluate effectiveness of urban greening efforts is extremely useful.

Qualitative approaches allow capturing the '**stories of place**' before urban greening interventions, which helps us better understand how these connections to place evolve through site transformation.

# Elements of RBME

Baseline data to describe the problem or situation before the intervention

Indicators for outcomes

Data collection on outputs and how and whether they contribute toward achievement of outcomes

More focus on perceptions of change among stakeholders

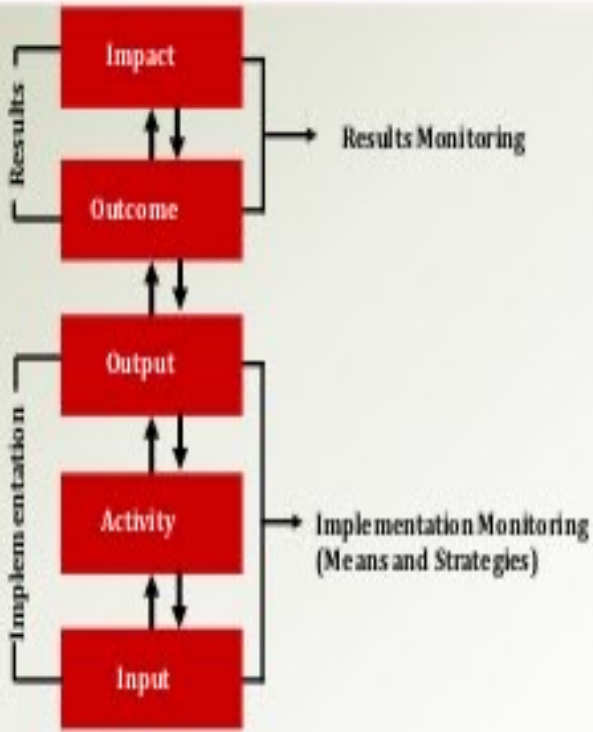
# Results-Based Monitoring





# Why RBME for UGS

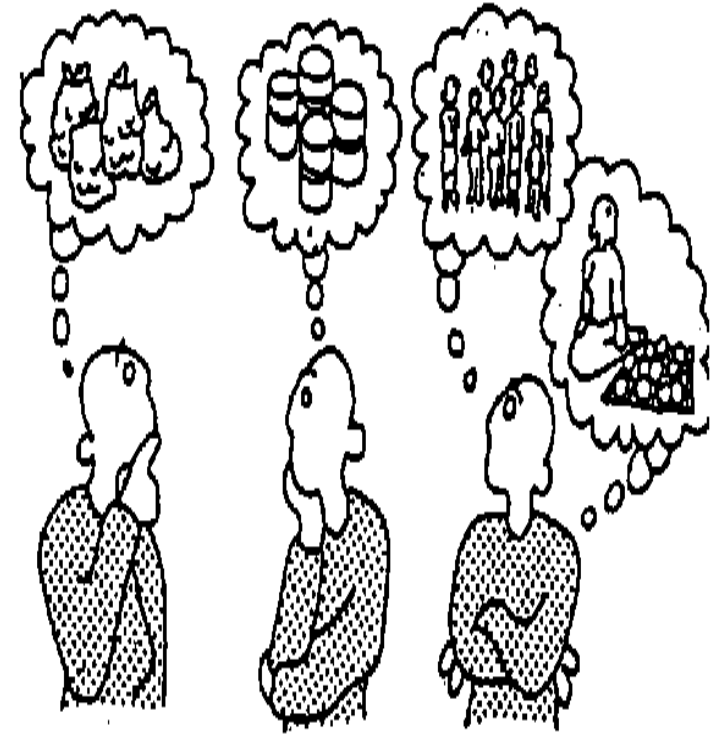
## Key Types of Monitoring



- Identifying changes in site conditions to understand how greening has contributed towards intended and unintended outcomes
- Improving implementation through midway assessments to identify issues and opportunities that if addressed could improve or increase outcomes
- Accountability supporting stakeholder reporting and communication
- Program learning through assessments at the end of implementation to inform development of future plans or policies


# Benefits of Participatory M&E

1. The first is to generate better-quality information— provides a better picture of reality on the ground
2. The second reason is to empower targeted beneficiaries. This means letting them lead the development process, helping to develop their skills, and supporting them, when needed, to make their own decisions on issues that affect them.
3. it can demonstrate and improve accountability to targeted individuals, groups or communities
4. Participatory M&E processes can also help beneficiaries build longer-term partnerships with CSOs, projects, government officials and other stakeholders



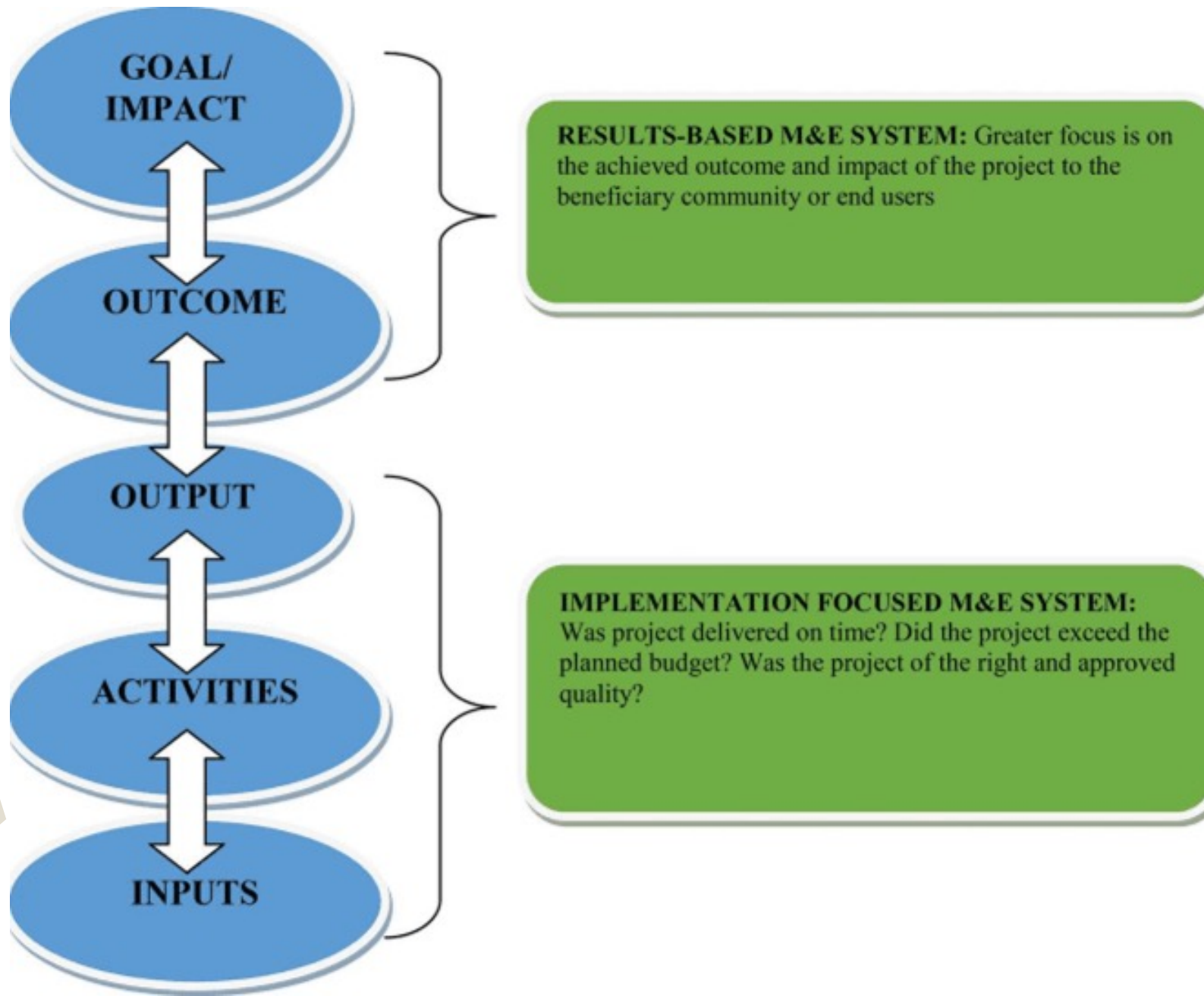
# Types of M&E

## Implementation-Based M&E

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- Focused on how well the project or program is being executed.
  - Provides little information to stakeholders and the M&E team on the understanding of how the project achieved success or failure.
  - The data collected during the implementation-focused M&E covers inputs that have been provided, activities undertaken, and the output as seen.
  - M&E reports capturing the provision and utilization of the project inputs and the production output.

## Results-Based M&E

- A work-in-progress used to track progress and validate the impact of the program/project
- Greater focus on the achieved outcome and impact to the beneficiary, community or end users.
- An effective results-based M&E system requires continuous commitment of time, efforts and resources (Kusek & Rist, 2004).
- Political, organizational and technical barriers need to be overcome to ensure the system works effectively





# Step 0 Readiness/Capability Assessment and Budget Review

- Ensure that M&E is considered from the start and that appropriate budget is allocated
- Consider the use of existing data at the local level to reduce the need for new data collection.
  - Be realistic about the impacts of the intervention and how they can be measured.
  - Collect baseline data prior to project implementation to compare the results before and after the intervention.
  - Consider the time frame for the project outcomes to be realized (environmental impacts may occur more quickly than social or health impacts).

# Methods for measuring and monitoring UGS actions

- Methods for measuring and monitoring UGS actions often focus on simple measures of land cover (e.g. tree canopy) or land use (e.g. access to parks).
- There is an increasing focus on *multifunctional benefits of UGS* such as the impacts on biodiversity and people's health.
- Additional monitoring and evaluation measures (indicators) help assess and analyze multiple benefits at different scales – from sites, to suburbs, to cities.



# Readiness Assessment: Monitoring begins at the start

- Consider the use of existing data at the local level to reduce the need for new data collection.
- Be realistic about the impacts of the intervention and how they can be measured.
- Collect baseline data prior to project implementation to compare the results before and after the intervention.
- Consider the time frame for the project outcomes to be realized (environmental impacts may occur more quickly than social or health impacts).

# Consider program impacts on both users and non-users

- Include non-users in assessment surveys to understand why they make no use of the urban green spaces.
- Identify potential conflicts between different user groups with different needs.
- Ensure that monitoring identifies whether the urban green space has activated new users or whether visitors simply used other green areas before.



# Adopt a mix of monitoring methods

- Quantitative data collected through surveys, observations or measurements can provide valid and comparable information on use and impacts of urban green spaces.
- Qualitative data compiled through interviews is helpful to explore the meaning of urban green spaces to an individual, and to understand personal preferences and concerns.

# Impact Monitoring

IMPACTS	GUIDE QUESTIONS TO GENERATE INFORMATION
Environmental/ ecological impacts	What is the impact of the UGS on air quality, noise or urban heat exposure? Does it support water management and reduce risk of flooding? Does it promote contact to nature? Does it enhance biodiversity?
Lifestyle impacts	Does the UGS support/increase physical activity levels? Does it enable active transport by foot or bike? Does it increase the time people spend outdoors? Are more people using the UGS? Does it support healthy lifestyles and active recreation?
Social impacts	Does the urban green space support or enhance social cohesion? Does it promote social interaction and exchange? Does the development of a UGS support gentrification processes leading to displacement of local residents?
Equity impacts	Do all population groups make use of and benefit from the UGS? If not, who are those groups that benefit least or even face disadvantages? Does the UGS enable different functions for different user groups?

# Objective Setting (intended outcome)

- A range of objectives can be defined, for short, medium and long-term outcomes to account for change over time.
- Need to identify and agree on greening objectives through stakeholders' engagement makes the key priorities clear and can be a useful process for building a *shared approach* across a range of stakeholders



# Target Setting

- Target: specific, measurable and time-bound result that directly contributes to achievement of an objective
- Based on the objectives, specify a target to be achieved in a specified time frame.



# Developing Indicators: some guideposts


- Indicators should be constructed to meet specific needs - a direct reflection of the outcome itself.
- Performance indicators can and should be used to monitor outcomes and provide continuous feedback and streams of data throughout the project, program, or policy cycle.
- Indicators can yield a wealth of performance information about the process of and progress toward achieving these outcomes.
- Indicators provide an opportunity to make midcourse corrections, as appropriate, to manage toward the desired outcomes. Using indicators to track process and progress is yet another demonstration of the ways that a results based M&E system can be a powerful public management tool.

# Identifying and Selecting Indicators

- Identify indicators that can measure and monitor progress towards the objectives.
- Include more than one indicator both qualitative and quantitative so you can monitor different aspects of your system, and link to the priority functions of the UGS.
- Ecosystem services (including cultural ecosystem services such as sense of place, aesthetic values) can provide a framework for identifying relevant indicators, that link to UGS and urban ecosystem objectives.

# Key Performance Indicators (KPIs)

- Provide a way to see if your strategy is working.
- Focus attention on what matters most for success.
- Provide a common language and understanding for communicating performance.
- Valid and realistic, helping ensure we're measuring the right things.
- Verifiable and ensure accurate data.

OUTPUTS  OUTCOMES

# KPIs 4 Key Attributes

## **1. Define performance measures as descriptive as possible in 4 categories**

- Activity measure – percentage, number currency and activities or processes
- Outcome measure – percentage increase, change or results from an outcome
- Project measure - often expressed as percent complete, a deliverable, activity, or process the owner can influence
- Target Structure - represent a numeric result against a date

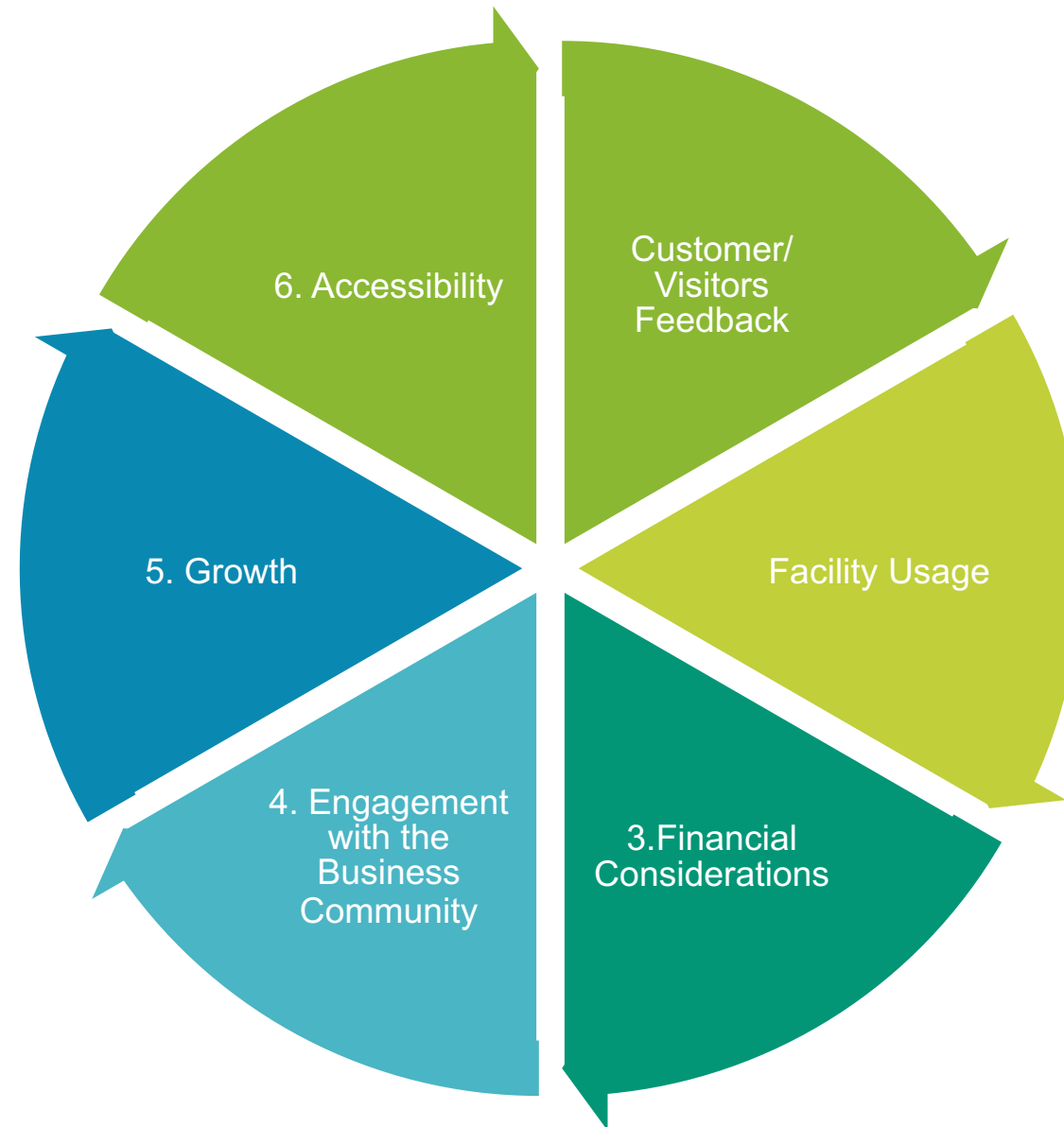
## **2. Define Target** - numeric value you're setting out to achieve

## **3. Outline Data Source – identify a clear data source**

## **4. Define an owner and tracing frequency** - someone accountable for pulling the data and updating performance on a defined frequency



# KPIs that are indicative of a parks and recreation assets' success: The US Case



# Examples of urban greening indicators

DOMAIN	ELEMENTS	INDICATORS
Biophysical	Biodiversity	Species counts (plants, birds, pollinators, bats, frogs) Threatened species counts Native vegetation cover/habitat area Ecological corridors connections
	Urban forest	Tree canopy cover Age- and size-class distributions Taxonomic (Species/Genus/Family) diversity Structural complexity (mid-story vegetation) Useful life expectancy Above ground visual assessments of health and risk

Domain	Elements	Indicators
Biophysical Management	Stormwater management	Runoff quantity Runoff quality/
	Planting	Numbers of plants and different species planted
	Retention and protection	Numbers of plants removed vs planted
	Plant health; planting success	Survival, health, form Maintenance activities
	Green space quantity	Amount of open space (area; area/population) Distance to park and park size
	Green space quality	Green space features Satisfaction with maintenance of green spaces
	Budget	Cost of management activities and interventions Lifecycle assessments

DOMAIN	ELEMENTS	INDICATORS
Social	Knowledge and engagement	Volunteer hours on site Number of volunteers Diversity of volunteers (age, cultural background) Length of volunteer engagement over time Awareness of greening among adjacent businesses, residents and industries Number, type and range of community events held in the space Budget for social or community engagement Social media
	Health	Mental and physical health and wellbeing indicators
	Food production	Quantity and range (including local native) of food harvested
	Aesthetics	Satisfaction (and delight) with site's features
	Visitation	Number of visitors Frequency of visitation Diversity of visitors Duration of visits

Source: Urban Greening Monitoring and Evaluation Factsheet <https://nespurban.edu.au/wp-content/uploads/2019/12/Urban-Greening-Monitoring-and-Evaluation-Factsheet.pdf>

# Impacts to consider in monitoring and associated questions

- Environmental/ ecological impacts
  - What is the impact of the urban green space on air quality, noise or urban heat exposure?
  - Does it support water management and reduce risk of flooding?
  - Does it support contact to nature?
  - Does it enhance biodiversity?
- Lifestyle impacts
  - Does the urban green space support/increase physical activity levels?
  - Does it enable active transport by foot or bike?
  - Does it increase the time people spend outdoors?
  - Are more people using the urban green space?
  - Does it support healthy lifestyles and active recreation?

- Social impacts
  - Does the urban green space support or enhance social cohesion?
  - Does it promote social interaction and exchange?
  - Does the development of a green space support gentrification processes leading to displacement of local residents?
- Equity Impacts
  - Do all population groups make use of and benefit from the urban green space? If not, who are those groups that benefit least or even face disadvantages?
  - Does the urban green space enable different functions for different user groups?



# Building an M&E system

- Formulate outcomes and goals
- Select outcome indicators to monitor
- Gather baseline information on the current condition
- Set specific targets to reach and dates for reaching them
- Regularly collect data to assess whether the targets are being met
- Analyze and report the results.

# UGS M&E Framework Objectives

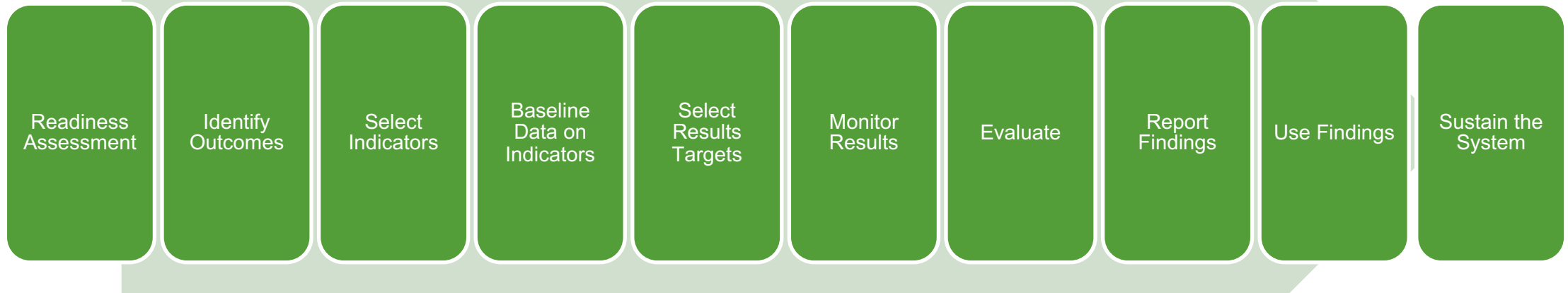
To guide LGUs in evaluating progress of UGS NAP implementation in accordance with national goals and strategies

To provide technical assistance with the development and conduct of both qualitative and quantitative data bases / knowledge management

To provide relevant information in regard to the development of available tools in promoting stakeholders' engagement and partnerships

To build a spirit of transparency (trust), accountability and partnership in UGS development and management

# 10-Steps on RME



# Sample Table for Agreed Timeline and Activities

## (Guide for Target Setting)

Target date	Data gathering method	Data source	Person In-charge	Frequency

# UGS GeoSpatial M&E : Priority Actions

Country-wide inventory  
of the UGS,

Assessment of the  
ecological condition of  
the UGS

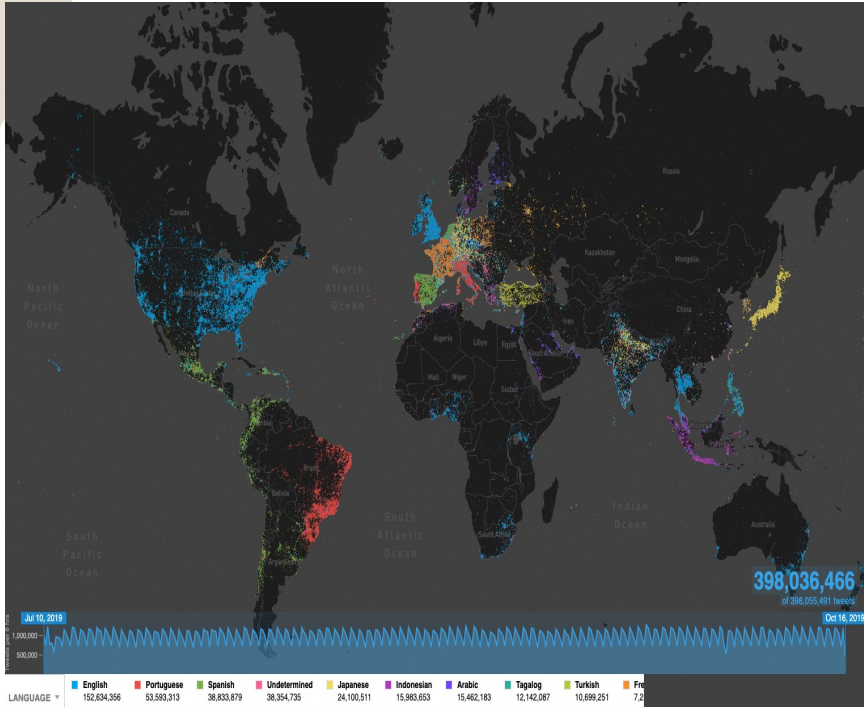
Formulation of care  
recommendations for  
existing the UGS;

Planning of the new  
UGS taking into  
account their desired  
location, species  
composition

recommended for this  
climate, geographical  
features of the area,  
regulatory  
requirements for the

territorial planning of  
cities, financial and  
aesthetic value of  
different plant species

# Geospatial Scale of M&E



- Define the timing, frequency and spatial scale of monitoring.
- Aim for consistency so that you build a rigorous and reliable dataset across time. Ideally, adopt standard methods that allow comparison at multiple scales.
- Ensure safe and secure data storage.
- Consider and respect ethics and privacy.
- Plan how, to whom and for what purpose you will communicate and report your monitoring.



