

Promoting Public Infrastructure Asset Management Across The Globe – The UN Experience

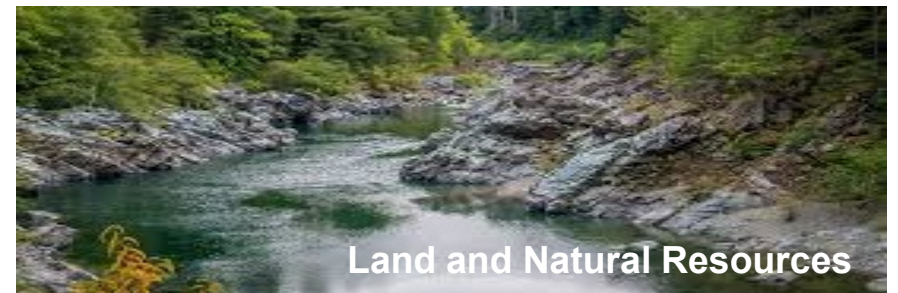
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1. Why does IAM matter to the UN (and/or the world)?
2. How does the UN try to build capacity on public IAM?
3. What are some of the tools on infrastructure asset management the UN has piloted?
4. What are some of the lessons learned in supporting public IAM?



What is Infrastructure Asset Management (IAM)

- What are public infrastructure assets?
- ✓ Physical things of value that are essential to the delivery of basic public services and are owned or managed by the local or central government
- What is public infrastructure asset management?
- ✓ Infrastructure asset management refers to the coordinated series of activities that **monitor** and **maintain** these things of value.



Why does Infrastructure Asset Management matter?

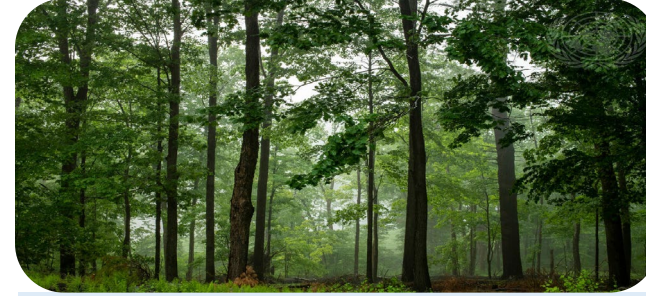
- It is estimated that the realization of over **90 percent** of the Sustainable Development Goals is directly or indirectly linked to infrastructure
- Undermaintained infrastructure can lead to an annual **2 percent** loss in GDP
- Up to **85 per cent** of life cycle cost occur after the construction phase
- Every **\$1** spent on infrastructure maintenance is as effective as **\$1.5** of new investments



How does public infrastructure asset management impact the social, economic and environmental dimensions of sustainable development?

Environmental

- Reduces material waste linked to asset use
- Increases **sustainability** of assets
- Recognizes nature as a communal asset



Social

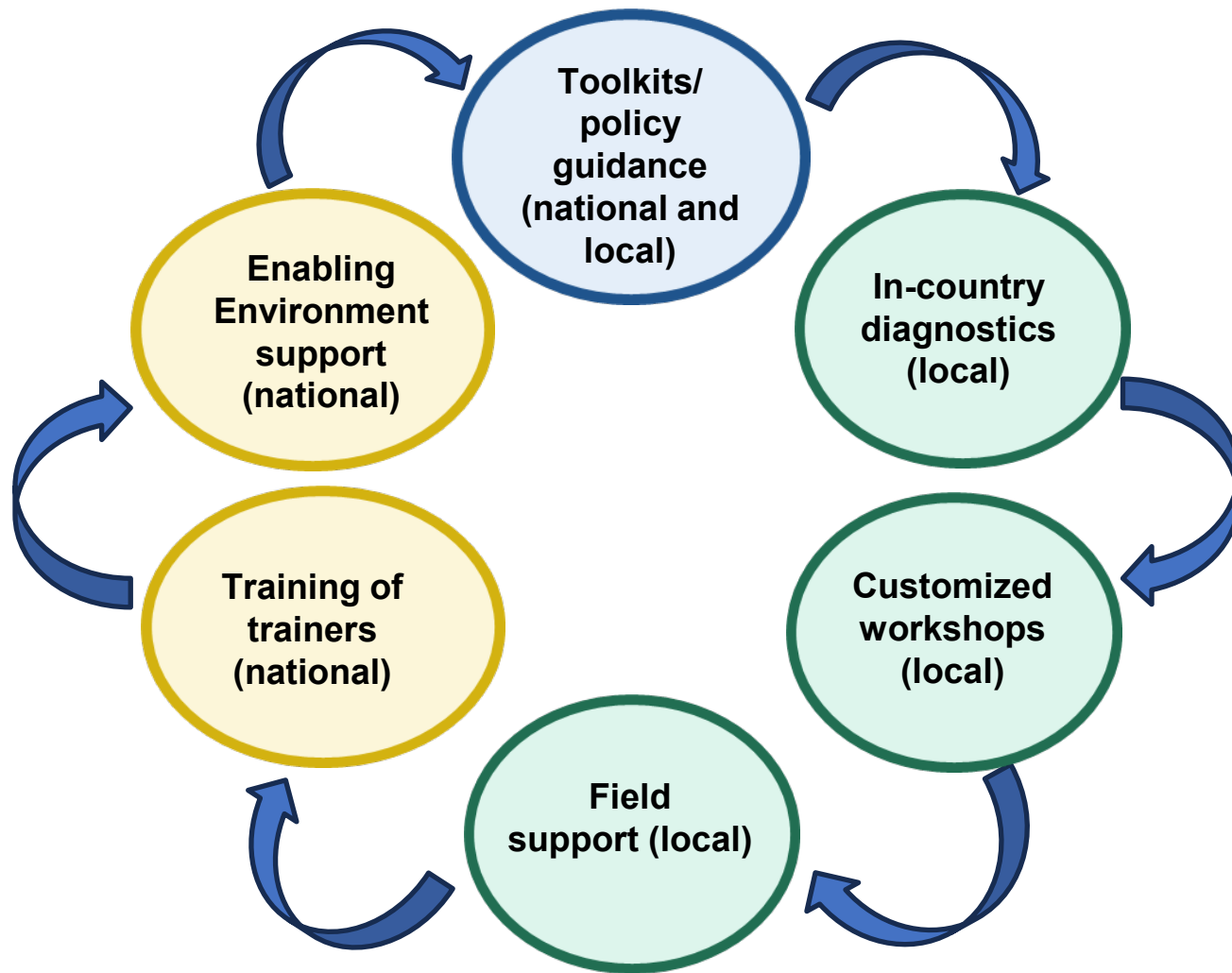
- Ensures equal access to services for all
- Increases **affordability** of public services
- Boosts community resilience during crises

Economic/Financial

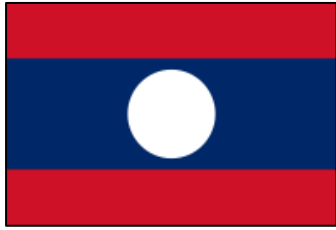
- Increases revenue potential of assets
- Reduces costs related to asset failure
- Creates **collateral** for investments
- Increases tax compliance ...



Current UN approach of providing technical assistance to infrastructure asset management at local and national levels



IAM UN pilot countries



Lao PDR



Serbia



Costa Rica



Nepal



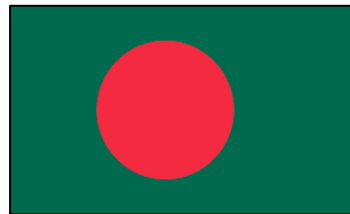
Kenya



Tanzania



The Gambia



Bangladesh



Uganda



Somalia

Who do we train on public infrastructure asset management?

It's a multistakeholder effort... Example for the city level:

Level	Asset Assignment Tasks	Roles
Operational	<ul style="list-style-type: none">• Respond to operations and service requests• Conduct maintenance• Conduct inspections	<ul style="list-style-type: none">• Supervisor• Operator• Mechanic• Technician
Tactical	<ul style="list-style-type: none">• Develop capital plans• Optimize maintenance plans	<ul style="list-style-type: none">• Director• Manager• Engineer
Strategy	<ul style="list-style-type: none">• Allocate budget for capital and operational expenses• Endorse infrastructure investment plans	<ul style="list-style-type: none">• Mayor• City director• City council or committee• Chief Accounting Officer

What are **some** of the tools on infrastructure asset management the UN has piloted?

UN Handbook on Infrastructure Asset Management

Asset Management Diagnostic Tool

Asset Management Action Plans (AMAP)

Building data and information system

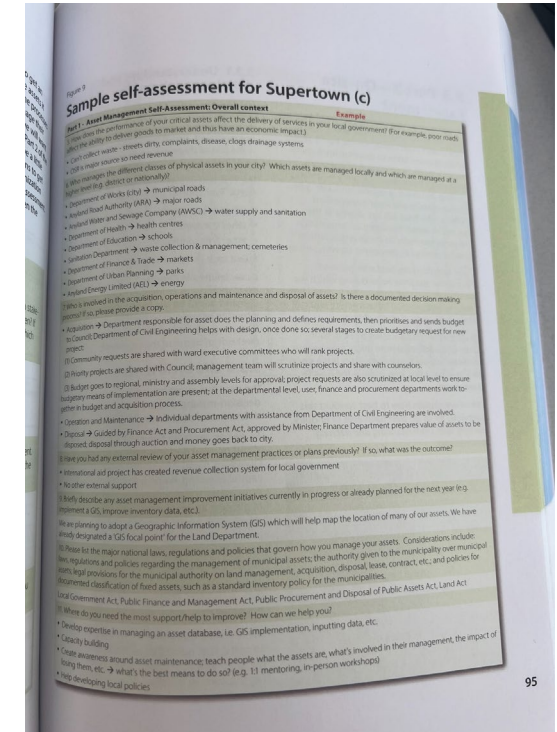
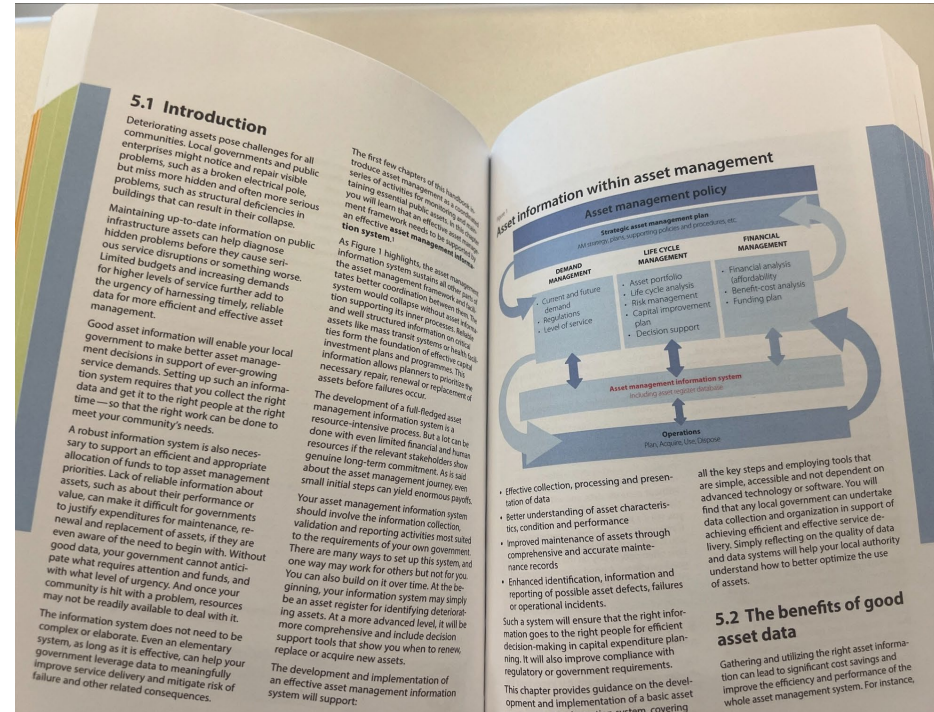
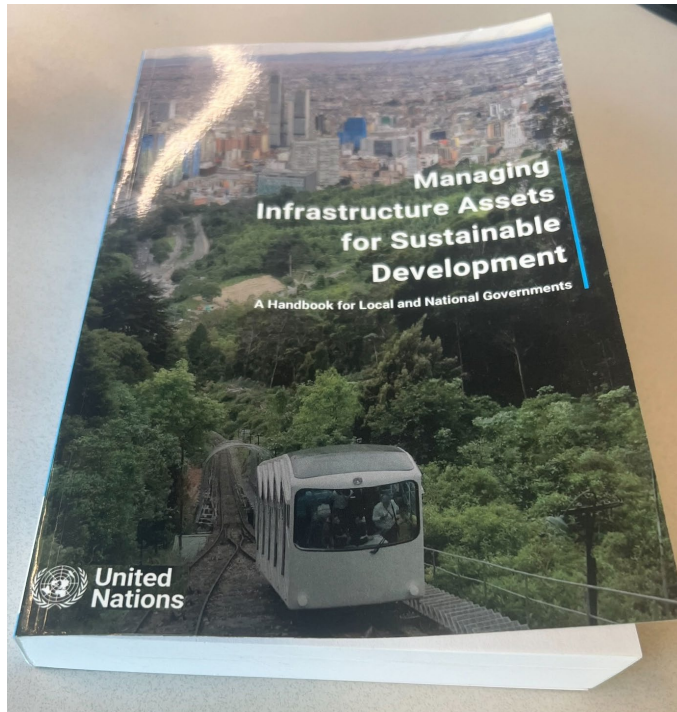
Emergency response AMAPs

Climate vulnerability assessment tool

Process tool for building enabling environment



Handbook is available in 9 languages (soon 11)

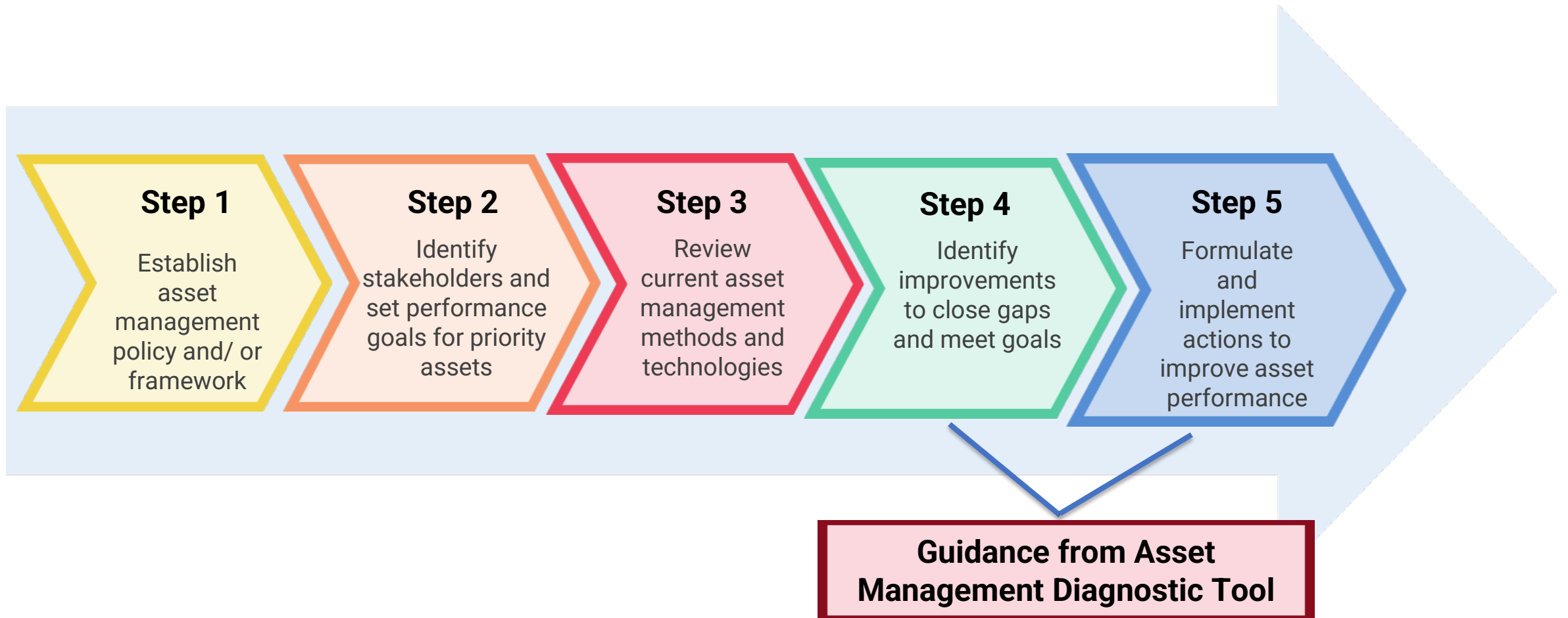


Tool (Example 1): The Asset Management Action Plan (AMAP)



- Methodical and repeatable process
- Translates recommendations from Diagnostic Tool into actions
- Focus on a priority asset

AMAP Steps



Current global repository of Asset Management Action Plans

- More than 250 AMAPs available online



Asset Management Action Plans



Tool (Example 2): IAM Climate Action Tool



- Helps local governments understand climate risk of local assets, and prioritize action with scarce resources
- Based on ISO 31000 Risk Management Framework.
- Conceptualized by FCM climate adaptation lead

Tool (Example 2): IAM Climate Action Tool

Climate Change Hazards



Storm Surge



Wild Fire

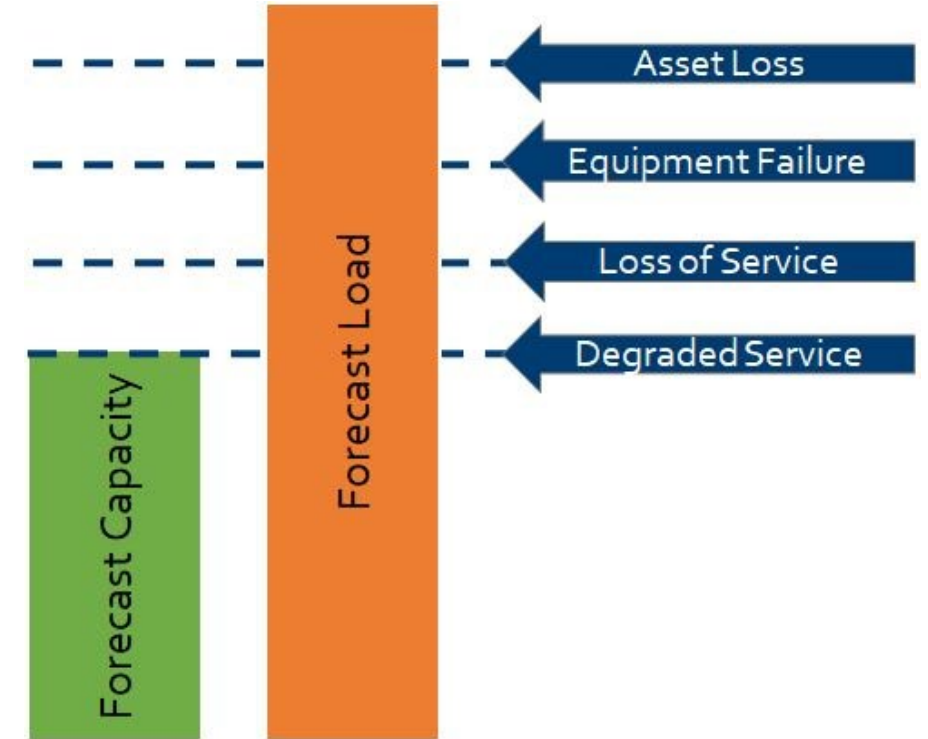


Drought

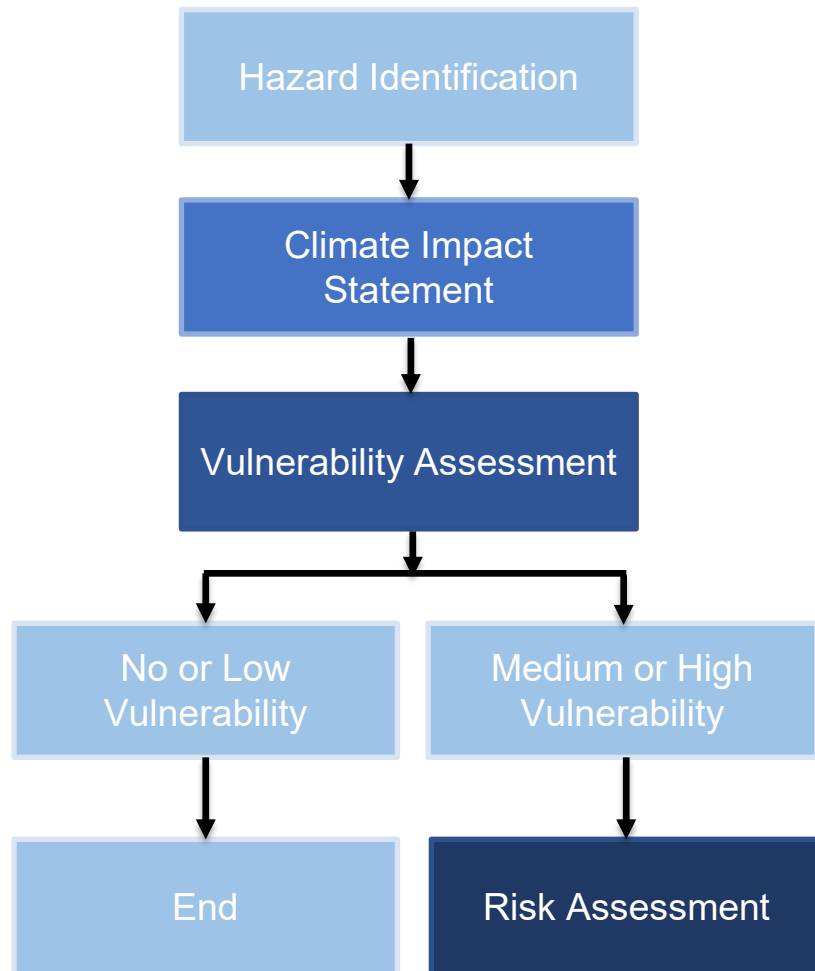


Landslides

Impacts of Climate Change on Infrastructure



Tool (Example 2): IAM Climate Action Tool



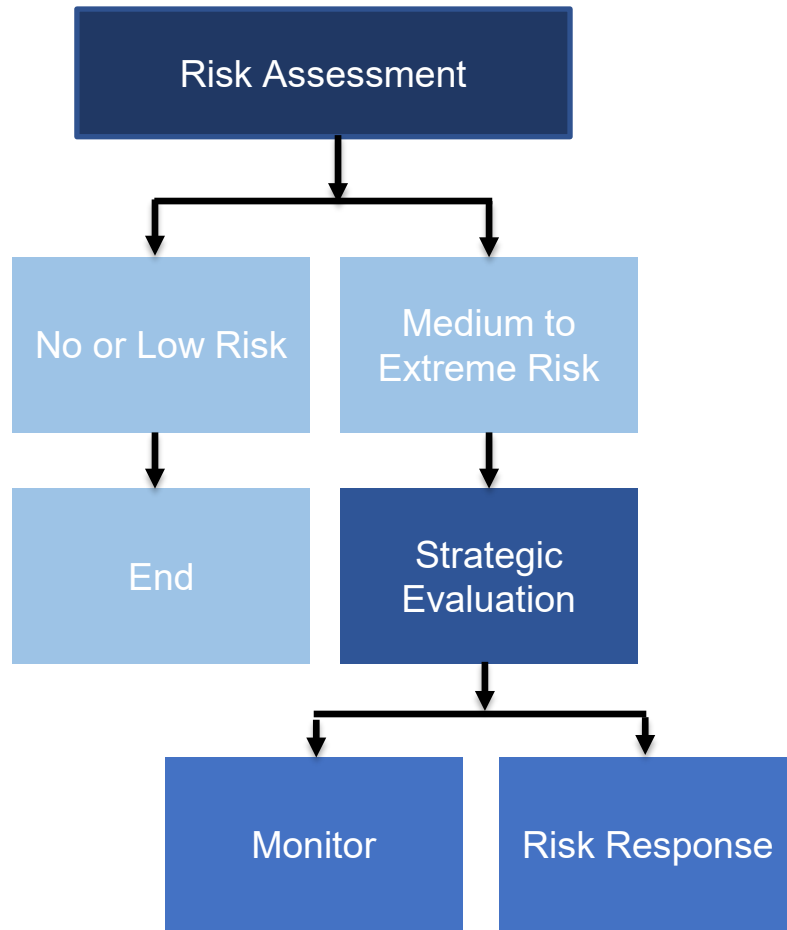
- 1 Which climate hazards are likely to affect your community?
- 2 How does it impact your community?
- 3 How vulnerable are you to those impacts? (Function of exposure and adaptive capacity)

- Define the relationship between a **climate hazard** and your **municipal services**, using a consistent and logical structure:



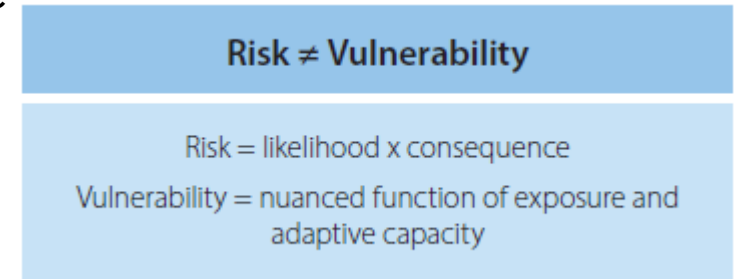
[climate hazard]
impacting **[service area, asset]** *resulting in*
[consequence]

Tool (Example 2): IAM Climate Action Tool



4 Which climate impacts are likely to have the most severe consequences?

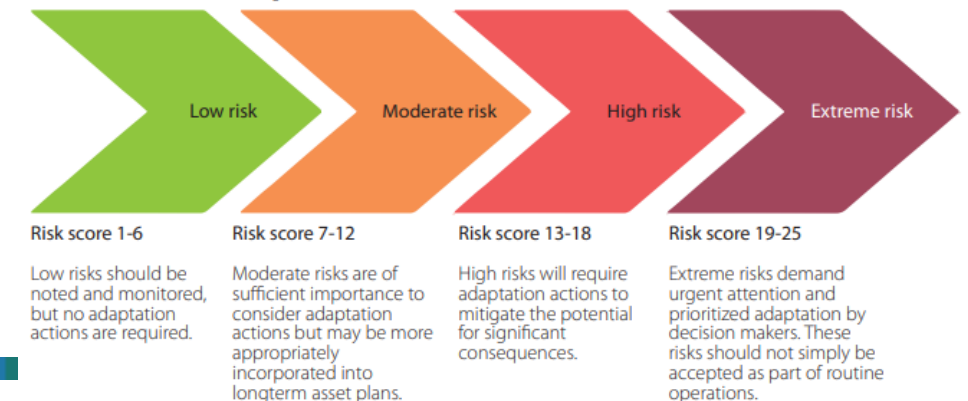
- Risk Evaluation Factor include:
 - Public Safety
 - Service Interruption
 - Financial implications
 - Environmental Harm
 - Asset Damage



5 Consider the big picture. Given your community's goals, which climate risks warrant response efforts now?

Likelihood x
Consequence
= Urgency

Risk level interpretations





Challenges encountered...

- **Lack of institutional capacity:** How to build national institutional capacity to train new urban IAM managers?
- **Delayed gratification:** How to incentivize short-term expenditure increases that are tied to much larger long-term savings?
- **Organizational inertia:** How to sustain IAM approach through lasting organizational change at local and central government?





Challenges encountered...

- **Finding the right audience:** What is the right mix of elected and technical officials to train get political buy-in and long-term training effects?
- **No enabling environment:** How to mobilize government to put the right national regulatory, policy, institutional and funding environments in place?
- **Lack of practical guidance on key areas:** Sustainable Asset Management vs. Classical Asset Management; Lifecycle finance; Natural Asset Management



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PAVING THE WAY TO SUSTAINABLE INFRASTRUCTURE

AUGUST 2023 ISSUE

Your biannual roundup of news and insights on **Infrastructure Asset Management (IAM)** from across the United Nations system and beyond. Part of the joint IAM initiative between the the UN Department of Economic and Social Affairs (UN DESA), UN Capital Development Fund (UNCDF), and the UN Office for Project Services (UNOPS).



Wind turbines in Costa Rica. CanvaPro license, photo from THEPALMER - Getty Images

HIGHLIGHTS

KENYA, THE GAMBIA, AND NEPAL EMBARK ON SUSTAINABLE ASSET MANAGEMENT TRAINING

On-site training to apply the [UN toolkits](#) on IAM for local and central government officials has been conducted in Kenya, Nepal, and The Gambia. Learn more about the workshops on [page 2](#).

Overall, the UN IAM work in the field is now supporting 7 countries, including Nepal, Lao PDR, Kenya, The Gambia, Costa Rica, Tanzania, and Bangladesh. Past project countries also include Uganda and Somalia. Check out all our project countries by clicking on the map below.



MASTER'S PROGRAM ON IAM LAUNCHED IN UGANDA

Following a series of UN DESA-led capacity development activities in Uganda, Makerere University launched a curriculum for a Master's Degree in [Public Infrastructure Management](#) based on the [UN Handbook on IAM](#). Learn more on [page 3](#).

CAPSTONE PROJECTS AT COLUMBIA UNIVERSITY SUPPORT UN IAM PROJECT

Access more on these recent research projects on [page 4](#).

WHAT ELSE IS INSIDE?

- Learn more about the importance of resilient IAM in the context of earthquakes on [page 5](#).
- Meet some of our trainers on [page 3](#).
- Learn more about the hybrid sensitization workshop in Lao PDR on [page 6](#).

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Questions?



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