Infrastructure Asset Management for Sustainable Development – Supporting local (and central) governments

A joint UNDESA, UNCDF and UNOPS initiative

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Presentation structure

Part I: What is Infrastructure Asset Management and why do we care about it?

Part II: Toolkits in the UN Handbook on IAM

Part III: Opportunities to engage

Part IV: Our Pilot Countries

What is Infrastructure Asset Management (IAM)

- **What are Infrastructure Assets?**

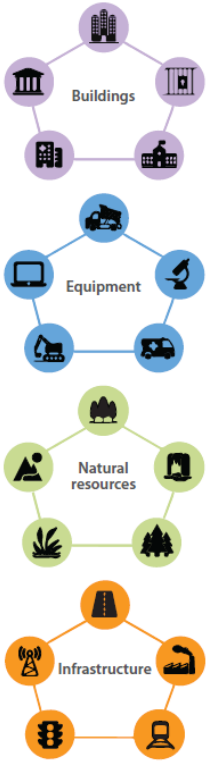
✓ Infrastructure assets are **physical things of value that provide a public service**.

✓ Public infrastructure assets are **essential to the delivery of basic public services**

- **What is infrastructure asset management?**

✓ Infrastructure asset management refers to the coordinated series of activities that **monitor** and **maintain** these things of value

✓ Involves balancing **risk, cost, opportunities** and **performance** to fully and effectively realize the value of an asset over its entire lifespan



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Why do we care about Infrastructure Asset Management ?

- The realization of **92 percent** of the Sustainable Development Goals is related to infrastructure
- Undermaintained infrastructure can lead to an annual **2 percent** loss in GDP
- Up to **85 present** of life cycle cost occur after the construction phase
- Asset management is, and should be, **primarily a local affair**

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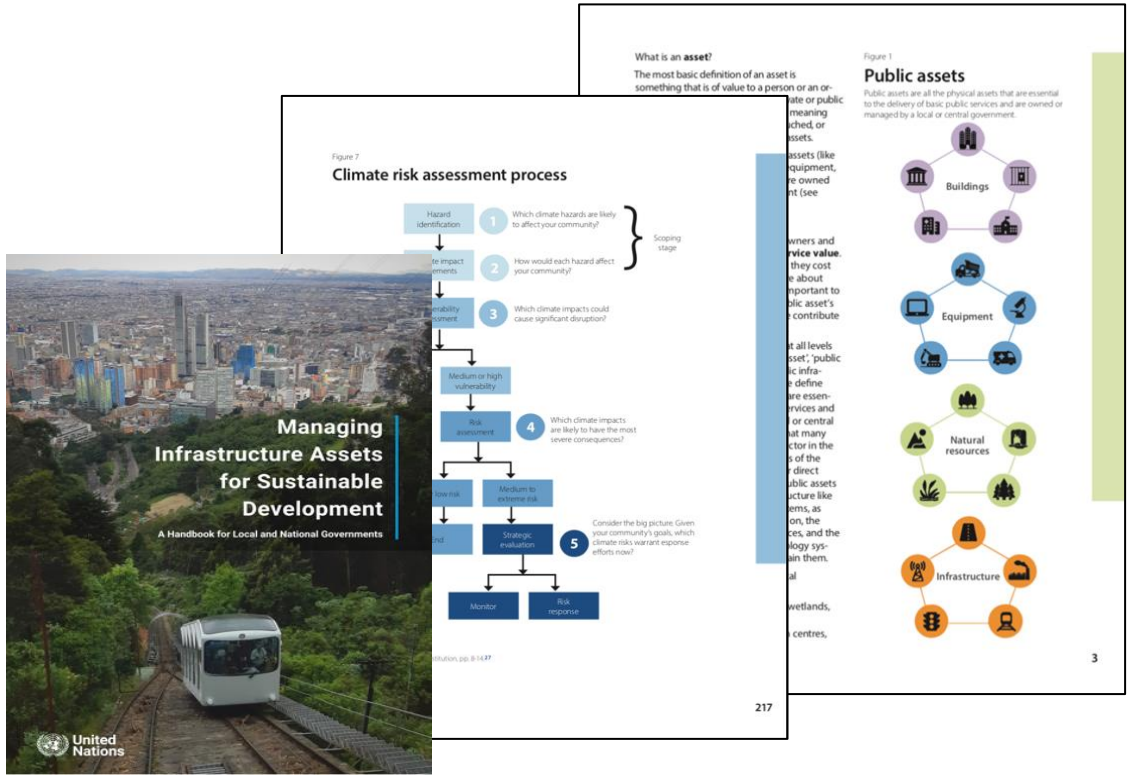
Part II: Toolkits in the UN Handbook on Infrastructure Asset Management

- 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



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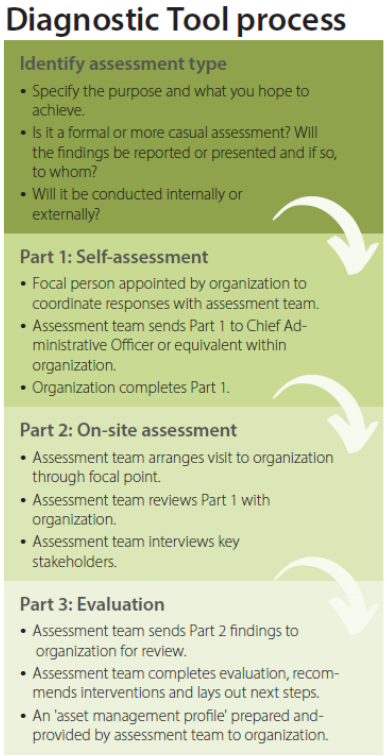
UN IAM Toolkits: (1) Asset Management Diagnostic Tool

- **Comprehensive assessment of current needs and challenges** - the Asset Management Diagnostic Tool offers a simple way to do this

- The main aim of the Diagnostic Tool is to **measure and raise** governments' **awareness of asset management techniques**.

- Only the first step towards better asset management and **should be followed by a concrete plan of action**



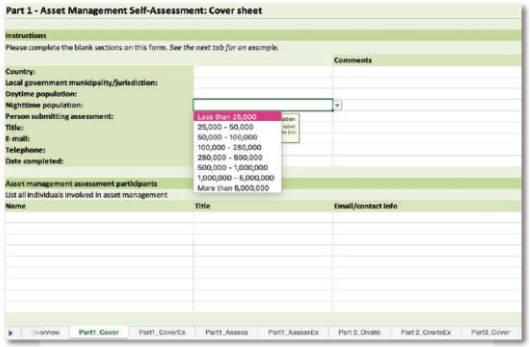
UN IAM Toolkits: (1) Asset Management Diagnostic Tool

1 Part 1: Self-assessment

2 Part 2: On-site Assessment

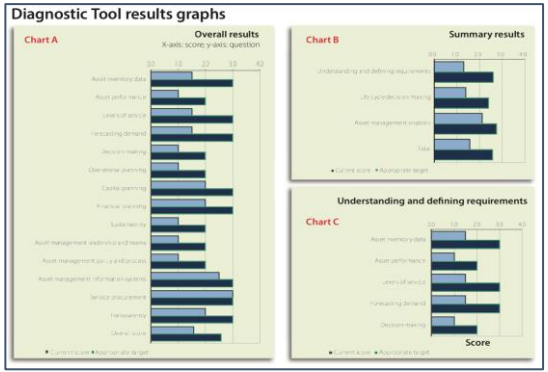
3 Part 3: Evaluation

Diagnostic Tool self-assessment cover sheet



- Understanding and defining requirements
- Life-cycle decision-making
- Asset management enablers
- Conducting Interviews

Diagnostic Tool results graphs



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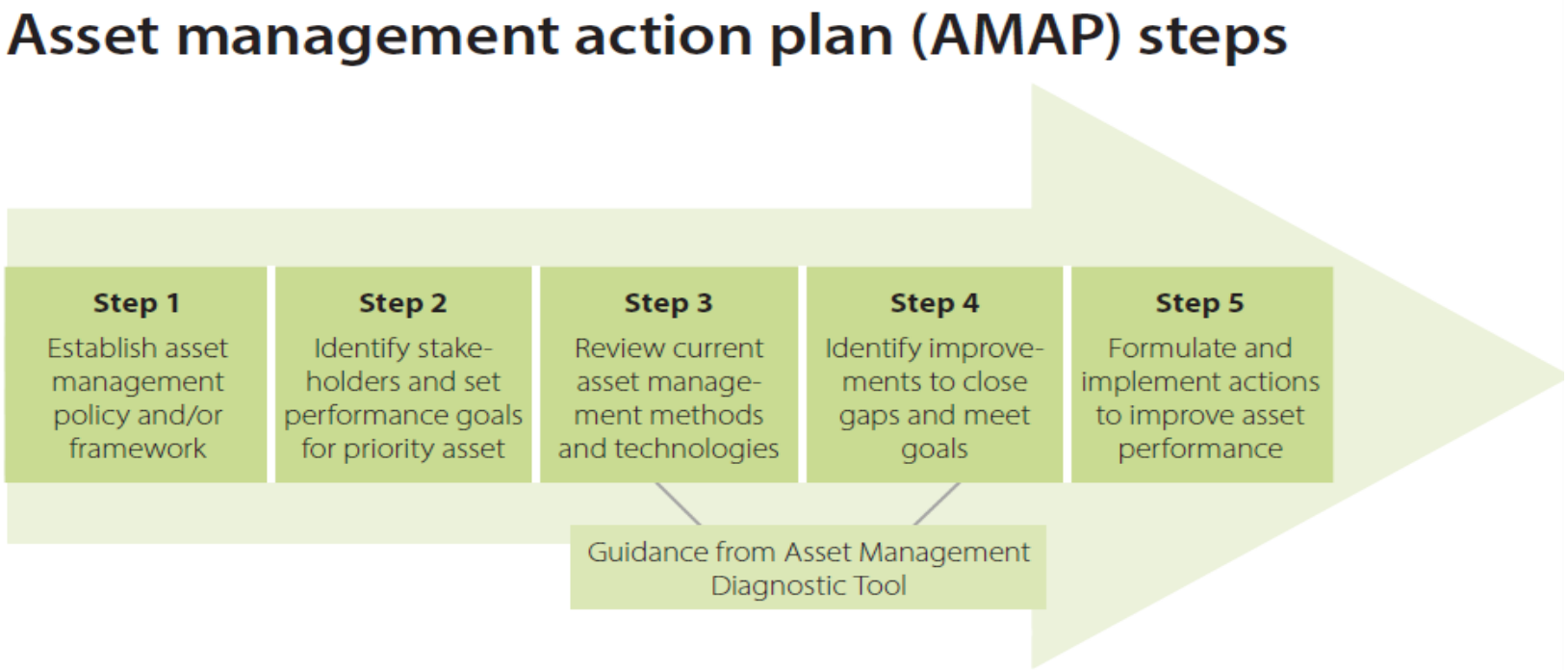
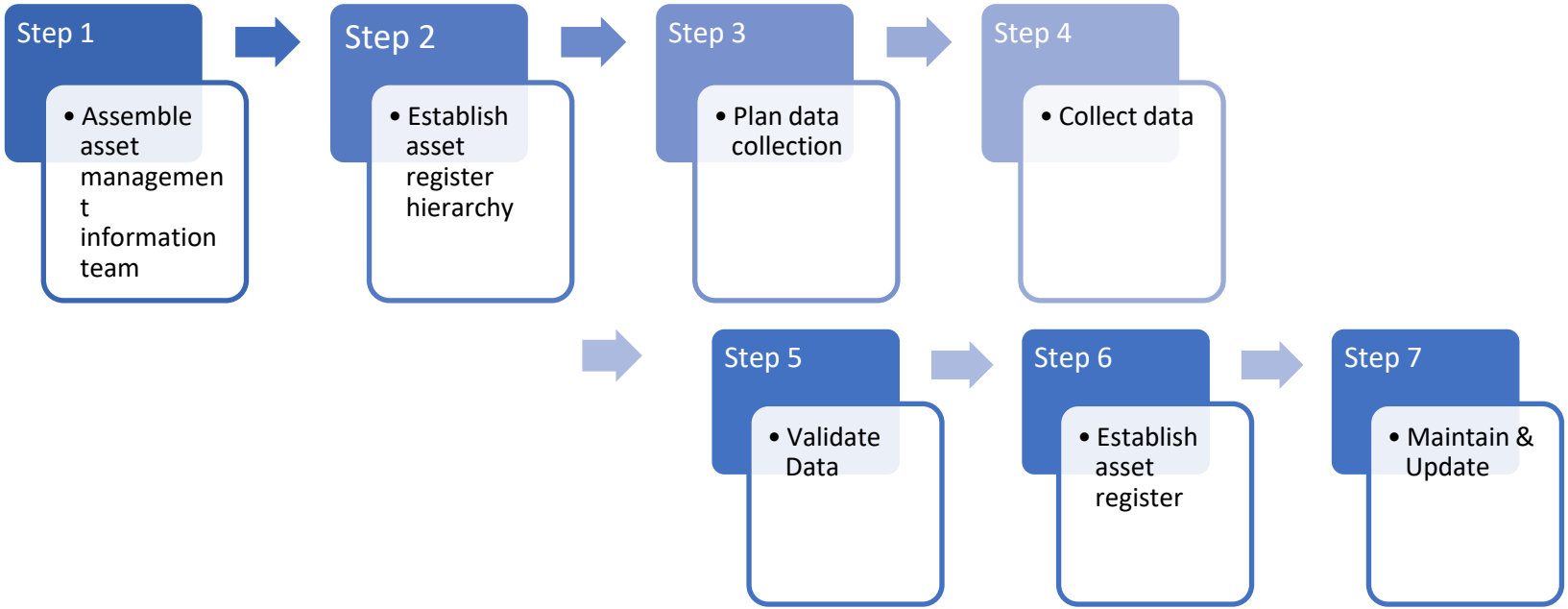
UN IAM Toolkits: (2) Asset Management Action Plans (AMAP)



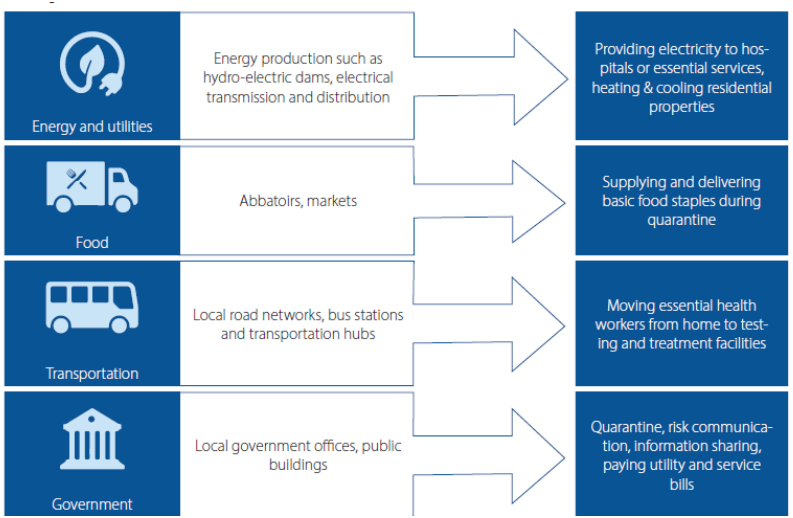
UN IAM Toolkits: (3) Building Data and Information System

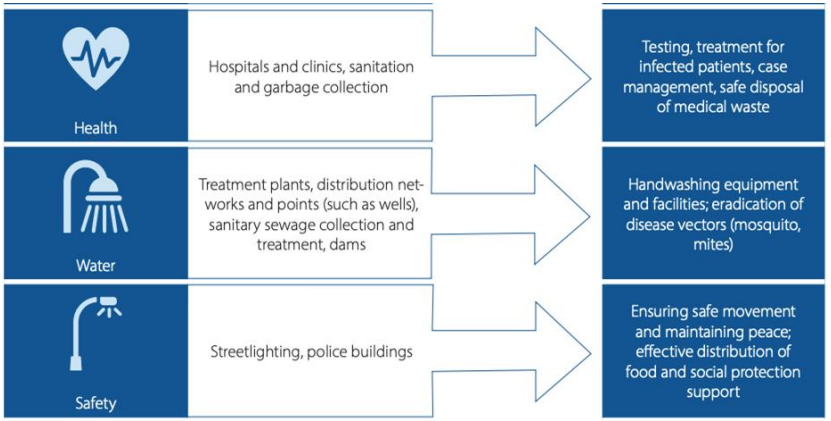
Steps to build the foundation of an efficient asset information system



UN IAM Toolkits: (4) Emergency Response AMAP

How to strengthen preparedness and response to public health emergencies within asset management systems





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UN IAM Toolkits: (4) Emergency Response AMAP

How to turn an AMAP into an Emergency Response AMAP

Improve coordination within and among local governments

- Identify and document new emergency response roles played by asset managers and record responsibilities
- Communicate emergency operations and maintenance with neighbouring jurisdictions and local authorities to execute collaborations across multiple localities

Protect the safety of frontline asset managers and operators

- Document new safety procedures or protocols for performing day-to-day asset maintenance or operations functions
- Identify important roads and transport corridors to clear and maintain to safely move essential workers, residents and commodities across the municipality

Support and guide local asset managers through different emergency response phases

- Identify national public health emergency response resources that can close gaps in local action
- Connect local emergency funding needs with national emergency response resources

Key elements of emergency operation plans and procedures

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UN IAM Toolkits: (5) Climate and Infrastructure

Climate Change Hazards

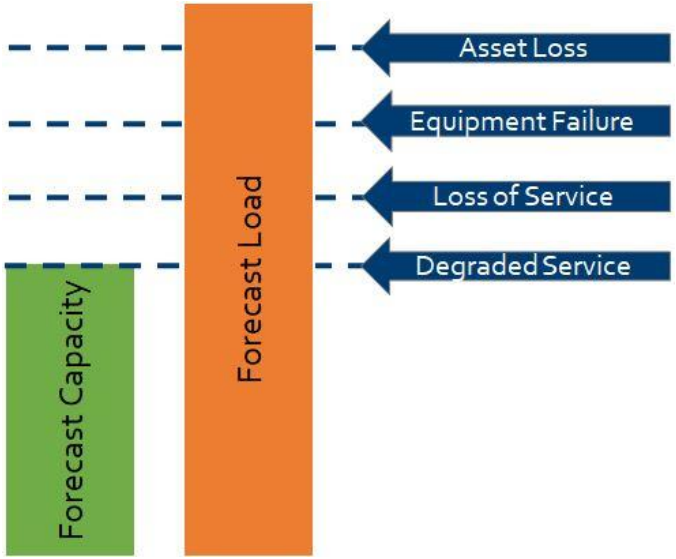
Storm Surge

Wild Fire

Drought

Landslides

Impacts of Climate Change on Infrastructure



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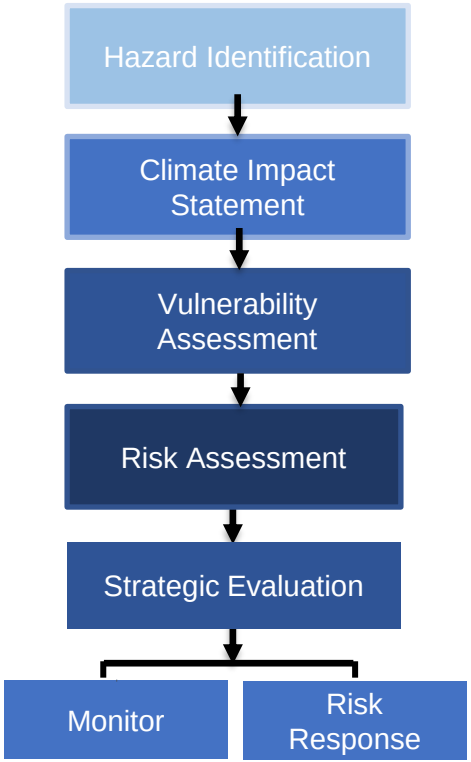
UN IAM Toolkits: (5) Climate Vulnerability Assessment Tool



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)**
4. **Which climate impacts are likely to have the most severe consequences?**
5. **Consider the big picture. Given your community's goals, which climate risks warrant response efforts now?**

UN IAM Toolkits: (6) Enabling environment assessment - CAT-I

- Tool developed to identify challenges and needs within the enabling environment to plan, deliver, and manage infrastructure systems.

  - Identify the need for new assets or upgrades;
  - Risk management;
  - Design and construct infrastructure projects to ensure long life with reduced operating costs;
  - Collect, manage, and use key information to inform decision making process;
  - Safely manage and operate infrastructure systems to ensure maximum benefit realisation; and
  - Safely decommission assets at end of life

Designing an enabling environment

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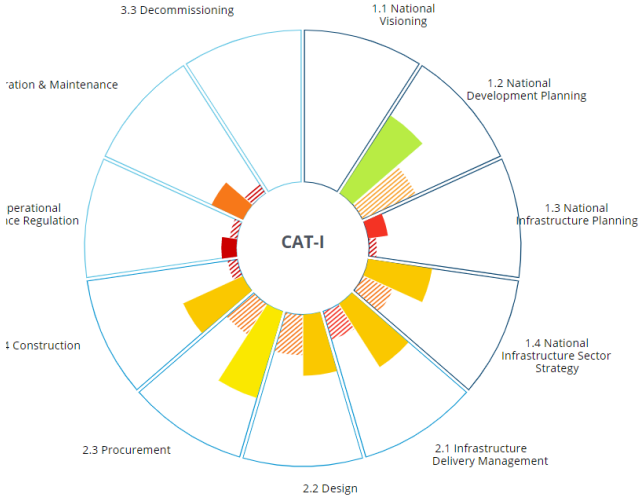
UN IAM Toolkits: (6) CAT-I framework - Lifecycle approach

Infrastructure Planning → Infrastructure Delivery → Infrastructure Management

3 stages

- 11 Indicators
- 93 sub-indicators
- 200-800 questions
- Status and effectiveness



Outcomes

- Identifies capacity strengths, challenges and needs
- Common language and framework
- Used to create actionable solutions
- Provides evidence to support the development of proposals
- Improves efficiency and therefore significantly reduce costs for developing and managing infrastructure
- Benchmarking

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Part III: Opportunities to engage

- Participate in online learning activities

  -Online dialogue solutions

  - Self-paced MOOC on IAM (UN Institute for Training and Research (UNITAR) and Columbia University)

  - Hybrid learning

- Contribute to global repository of Asset Management Action Plans (AMAPs)
- Join IAM network of local governments
- Request technical assistance

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Part IV: Our pilot countries

- Our work has received support from the UN Peace and Development Fund (**UNPDF**) to scale up our activities for a **3-year** period

- Project countries include Uganda, Tanzania, Kenya, The Gambia, Somalia, Nepal, Lao PDR, Peru and Costa Rica

- New expressions of interest from a range of countries, including Egypt and UAE

Questions and comments?

Please also visit: bit.ly/UN-IAM

or contact: IAMH@un.org