eSHIFT Partner Network

AMR COP Webinar

AMR Surveillance - Landscape Analysis Toolkit

John Farrow - September 2025

Agenda

- **Introduction** and Who We Are
- Technical Assistance for Data and Evidence Use Grant **Scope**
- Introduction to the **Landscape Analysis**
- Landscape Analysis **Toolkit**
- **Objectives and Outcomes**
- **Methodology**
- Data **Analysis**
- Landscape Analysis **Tools Showcase**

Who are we?

Swiss non-profit Association founded in 2012

Unaffiliated, neutral NGO

Engineering & technology driven solutions with extensive global public health expertise

Successful national-level technical implementations in LMICs Digital Health, Health Informatics, National Health Systems

Entrusted by International Organisations including UNOPS, UNICEF, UNDP, Global Fund and WHO on digital strategy work in LMICs

Agile working through international cooperation and public-private collaboration and partnerships.

eSHIFT – Antimicrobial Resistance

eSHIFT has been working to address the emerging threat of antimicrobial resistance since 2018

UK Global AMR Innovation Fund (GAMRIF)

- Collaborated with FIND on a grant to pilot AMR surveillance in Zambia and Senegal
- Developed a set of custom tools to support AMR surveillance
- Initial focus was on lab connectivity and interoperability

Fleming Fund Regional Grant for Laboratory Quality Management, Networks and Data Aggregation

- Enhance capability of national AMR reference and site laboratories
- Improve AMR surveillance data collation, management and presentation across sectors.
- Improve support for clinical decision making
- Implemented in Nepal and Kenya

Development of the AoS Health AMR Surveillance Platform

- Built an integrated DHIS2 system for AMR surveillance
- Developed to address significant data management challenges, provide API integration to central data warehouses, provide data visualisations, and support GLASS reporting

eSHIFT – Antimicrobial Resistance

2018

UK Global AMR Innovation Fund (GAMRIF) funds FIND for AMR surveillance pilot in Zambia and Senegal

2020

Launch of AoS Health initiative:

- eSHIFT
- The Software for Health Foundation
- Blue Frontier

2021

V1.1 of the AMR Surveillance toolkit released as a public good

- Focus on connectivity and interoperability

2021 - 2022

Nepal and Kenya projects begin in September 2021, with primary implementation complete in March 2022

2022-2024

Ongoing support of the Nepal and Kenya projects, expanding features

Advocacy and planning for next steps

Increasing Platform Maturity

eSHIFT – TADE Grant

Through this AMR work under the Fleming Fund, we were identified as candidates to support the Technical Assistance for Data and Evidence Use (Africa and Asia).

TADE Grant Scope for eSHIFT:

- Provide the **technical expertise for the development and deployment of IT solutions** to enhance the collection, aggregation and analysis of data feeding into economic studies.
- **Support data digitization tools and development of electronic solution** for collecting information and interoperating with national dashboards and systems such as DHIS-2
- **Develop tools enhancing the collection, collation, and analysis of AMR surveillance data** to improve the relevance and feasibility of various investment case studies for AMR
- **Contribute to the development of economic case analyses**.
- **Support economic analyses on AMR**, conducting research to inform policy, and assisting countries in calculating AMR-related costs.
- **Collaboration with policymakers** for evidence informed decision making.
- **Support trainings on AMR health economics**, advocating for awareness, and driving policy change through effective communication.

Landscape Analysis - Introduction

To support these objectives, the TADE grant identified the need to conduct a Landscape Analysis of AMR Surveillance to support countries in developing a more structured understanding of the architecture of their AMR surveillance system.

All with the goal of providing a **package of tools and resources** to countries that can be leveraged to support their objectives in strengthening AMR surveillance.

As a result, we identified the following **Primary Objectives** for an initial Landscape Analysis:

- Map the existing AMR surveillance landscape in Zambia, Malawi, and Ghana, identifying key technologies, data sources, and stakeholders across the One Health sectors.
- Understand the political, economic, and social dynamics that shape AMR policymaking, implementation, and sustainability in these countries.

Landscape Analysis Toolkit

The Landscape Analysis Toolkit consists of the following components:

- **Protocol Document** for Conducting a Landscape Analysis of AMR Surveillance
- **AMR Stakeholder Mapping Tool**
- **AMR SSAT** – AMR Surveillance System Assessment Tool
- **AMR SSAT User Guide**
- **Costing Tool**
- **Guidance Document** for Leveraging Existing Resources for Supporting AMR Surveillance

Specific Objectives

- **Identify gaps** in AMR surveillance and data utilisation within the pilot countries, focusing on technological limitations, data collection challenges, and opportunities for cross-sectoral integration.
- **Assess the roles**, relationships, and influences of **key stakeholders**—including government agencies, healthcare providers, veterinary services, the private sector, and non-governmental organisations (NGOs)—in shaping AMR policy and practice in the pilot countries
- **Develop actionable recommendations** for strengthening AMR surveillance systems and enhancing the use of AMR data in policy-making and decision-making processes within the pilot countries.
- **Create replicable protocols and frameworks** based on the findings from the pilot countries, enabling other Fleming Fund-supported African countries to conduct similar analyses independently.
- **Leverage the findings** from the landscape analysis to inform and design specific economic studies under the scope of the TADE grant, including economic case studies, burden of disease assessments, and investment case analyses.

Expected Outcomes

- Conducting the Landscape Analysis in Zambia, Malawi, and Ghana will **generate insights** and lessons that will directly contribute to the **development of standardised tools and methodologies**.
- These resources will **support other countries in the region** as they work to strengthen their AMR surveillance systems, **promote data-driven policymaking**, and **develop sustainable responses** to the AMR crisis.
- The findings from the landscape analysis will also serve as a **foundation for economic analyses** to better quantify the costs of AMR and to develop investment cases for improved AMR surveillance and control.

Primary Research Question:
How can the existing One Health AMR surveillance systems, data-sharing practices, and the political, economic, and institutional dynamics in Zambia, Malawi, and Ghana be leveraged to improve AMR interventions, strengthen data utilisation for evidence-based policymaking, and address systemic gaps in AMR surveillance and response?

Approach

The methodology consists of two primary components: **Landscape Analysis and Political Economy Analysis**

Designed based upon existing landscape analysis and PEA frameworks

The Landscape Analysis will **assess the current AMR surveillance systems**, while the PEA will **explore political, economic, and social factors** impacting AMR policy development and interventions.

Both components are designed to gather qualitative insights through stakeholder engagement, data collection, and a structured analysis framework.

Support the following objective:

Create replicable protocols and frameworks based on the findings from the pilot countries, enabling other Fleming Fund-supported African countries to conduct similar analyses independently.

Methodology

The Landscape Analysis will examine AMR surveillance technologies, data sources, and stakeholders within the One Health sectors (human, animal, and environmental health). The analysis will be divided into the following stages:

- **Literature Review:** A desk review will compile existing documents such as national AMR action plans, previous studies, and global AMR guidelines (WHO, FAO, OIE). The review will provide context for the current AMR landscape, identifying technological and systemic gaps in surveillance efforts.

- **Survey:** A survey will be conducted with representatives from in-country government entities, country grant recipients, and AMR coordinating committees, and other stakeholders. This survey will capture qualitative and quantitative insights into current surveillance practices, data usage, and the challenges stakeholders face.

- **Facilitated Workshops:** Facilitated workshops will bring together stakeholders to validate findings from the literature review and survey. They will also serve as platforms for collaborative discussion on opportunities to improve AMR surveillance systems, data sharing, and policy alignment across sectors.

Political Economy Analysis

Stage 1: Basic Country Analysis

- Objective: To assess the foundational political, economic, and public health contexts that shape AMR policies.
- Approach: Historical review of political dynamics, funding and public health priorities related to AMR.

Stage 2: Understanding Organisations, Institutions, and Actors

- Objective: To map the roles and relationships of key stakeholders within the AMR landscape.
- Approach: Define the AMR sector, identify major stakeholders, assess responsibilities, data ownership, and information systems, explore the motivations and incentives driving behaviour, and conduct a rapid assessment of stakeholder dynamics

Stage 3: Operational Implications

- Objective: To translate PEA findings into actionable recommendations.
- Approach: Identify immediate goals based on findings and highlight areas of technical assistance and advocacy efforts to build awareness

Data Analysis

- **Thematic Analysis:** Open-ended survey responses will be coded to identify recurring themes related to AMR surveillance technologies, data-sharing practices, and challenges.
- **Descriptive and Comparative Analysis:** Quantitative survey data will be summarised using descriptive statistics (e.g., frequencies, averages).
- **Gap Analysis:** Responses will be assessed against international standards, national AMR action plans, and best practices.
- **Power and Influence Mapping**: Stakeholder influence on AMR policy and interventions will be visually mapped to identify the key power players, their relationships, and how these dynamics shape decision-making processes.
- **Economic Incentive Analysis:** This analysis will examine the financial and economic drivers impacting AMR policy, such as resource allocation, healthcare funding, agricultural incentives, and donor contributions.
- Mapping Stakeholders to Operational Areas and Interventions: Stakeholders (e.g., government entities, private sector, NGOs, and donors) will be mapped to specific operational areas within AMR interventions, such as antimicrobial stewardship, surveillance, infection prevention, and regulatory measures.

AMR Stakeholder Mapping Tool

- Developed by the **University of Zambia**

- Provides a **structured approach for mapping and categorizing stakeholders** in a country's antimicrobial resistance (AMR) space using a **power and interest matrix**. The main objective is to assist policymakers, researchers, and AMR stakeholders in **identifying key actors** across animal health, human health and environmental health sectors in a One health approach.

Steps to conduct a Stakeholder Mapping

1. Stakeholder Identification
2. Evaluation of Stakeholder Power and Interest
3. Stakeholder Power and Interest are measured using certain criteria on a 1 – 5 Scale

Stakeholder Mapping - Power

Power refers to the individual stakeholder's **degree of influence and decision-making authority**.

Power is measured using the following criteria:

- **Authority** – The power to make decisions
- **Resource Control** – The power to provide and manage financial and human resources
- **Influence** – The power to influence other stakeholders in relation to resource allocation, policy, advocacy etc.
- **Expertise** – Institution with recognized specialized skills, research capabilities, and technical knowledge
- **Collaboration / Networks / Alliances** – Institution that fosters and/or participates in partnerships
- **Ability to Communicate** – Effective communication of information that influences others into action

Stakeholder Mapping - Interest

Interest refers to the **level of concern or involvement** in AMR

Interest is measured using the following criteria:

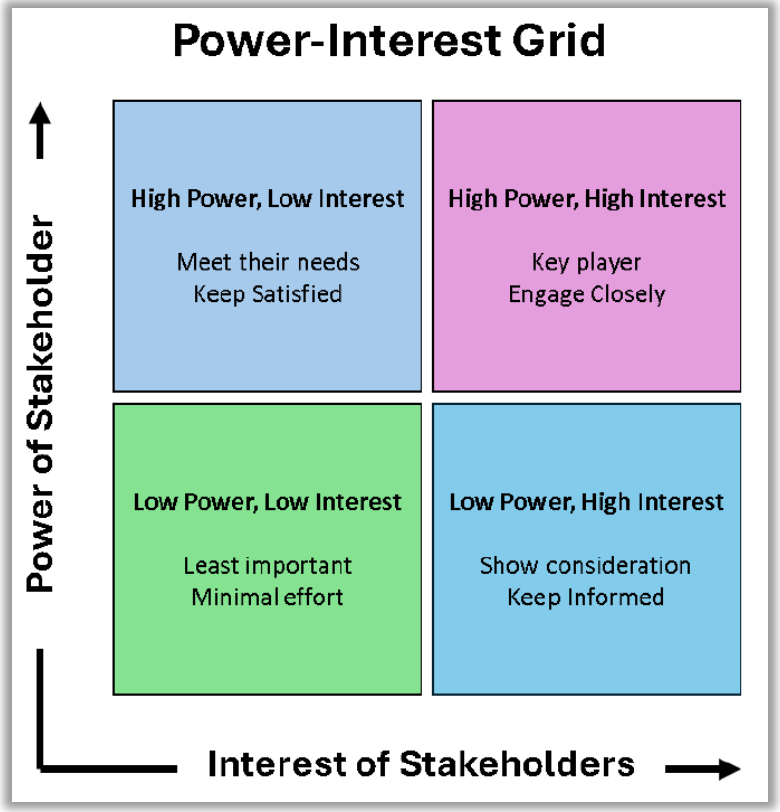
- **Frequency of participation in activities and decision-making meetings** – The frequency with which institutions are represented when invited to meetings relating to a project or programme.
- **Extent of participation in decision making meetings** – If present in decision making meetings, the extent to which representatives from invited institutions actively participate is estimated.

Stakeholder Mapping - Scoring

Stakeholder scoring is most effective when multiple individuals participate to ensure objectivity and reduce bias. There are two possible approaches:

- **Averaging Individual Scores –** Each person scores stakeholders based on the predefined criteria for power and influence. The scores are then averaged to determine final placements within the stakeholder matrix. This approach maintains individual perspectives while balancing subjectivity.

- **Consensus Scoring –** The group discusses each stakeholder and collectively agrees on their scoring on the predefined criteria for placement in the matrix. This approach fosters collaboration and shared understanding but may require more time to reach agreements.

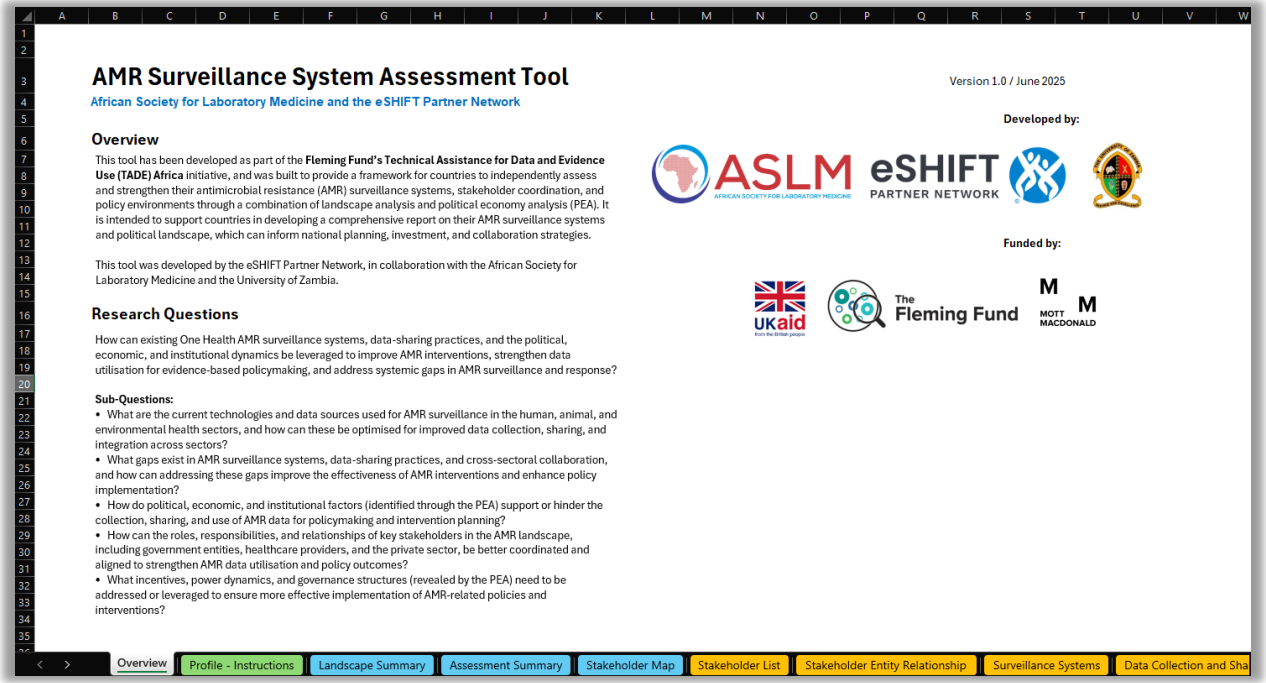


Project Outputs

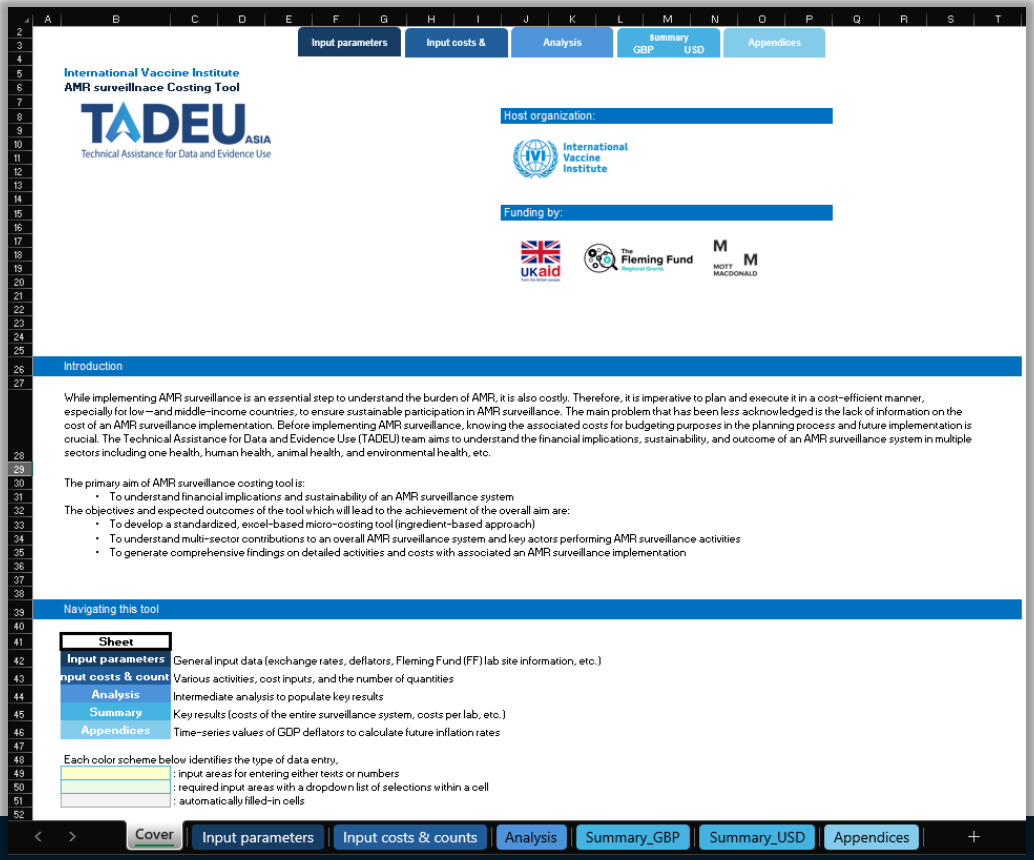
- We were able to conduct a survey across the Africa region, with 118 responses across 9 countries
- Unfortunately, due to time constraints and challenges with data collection, were only able to conduct the formal analysis and reporting for Ghana
- A general report covering the whole region is in progress
- Following the development of the protocol and conducting the analysis for Ghana, it was decided that alongside the Protocol document a **Surveillance System Assessment Tool** should be developed to support countries in conducting monitoring and evaluation of their surveillance systems.

Surveillance System Assessment Tool

Developed in Excel, it is based on the Landscape Analysis and PEA protocol and includes additional features for longitudinal M&E of AMR surveillance programmes.



Surveillance System Costing Tool



AMR Surveillance Assessment Guidance

There are several other resources that may be useful in managing and conducting monitoring and evaluation for AMR Surveillance programmes.

- **TrACSS** – Quadripartite Country Self-assessment Survey
- **CDC LAARC** – Structured Assessment for Laboratory Capacity
- **FAO-ATLASS** - Assessment Tool for Laboratories and AMR Surveillance Systems
- **FAO-PMP-AMR** - Progressive Management Pathway for Antimicrobial Resistance
- **WOAH PVS Pathway & PVS Tool** – Capacity Building and Strengthening for Veterinary Services

Toolkit Release

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- **Costing Tool**
- **Guidance Document** for Leveraging Existing Resources for Supporting AMR Surveillance (in progress)

Intended release by the **end of Q4 2025**

Thank you!

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