Workshop on Integrated Surveillance Framework for Antimicrobial Resistance Focusing on Animals and Environment

Organized jointly by
Zambia National Public Health Institute, Ministry of Health, Zambia
and
Centre for Science and Environment, India
March 4-6, 2019
Lusaka, Zambia

Setting the context
Chandra Bhushan, Deputy Director General, Centre for Science and Environment
The Centre for Science and Environment (CSE) is a public interest research and advocacy organisation based in New Delhi. It researches into, lobbies for and communicates the urgency of development that is both sustainable and equitable.

CSE has helped shape policies and build public awareness to bring change for over three decades; is recognized for its role in capacitating public institutions and regulatory agencies.

CSE rated as one of the top global environment policy think tanks

- As per the Global Go To Think Tank Index 2017, CSE has been ranked 1st in India and 16th globally among environment policy think tanks.
- Named in the world’s first comprehensive list of leading food and water security research and advocacy organisations.

CSE plays an important role as a southern think tank that articulates the perspectives and policies of the global south.
CSE’s footprint in Africa and South-Asia

CSE programmes presently work in 13 countries in Africa and Asia
CSE’s focus areas w.r.t Antimicrobial Resistance (AMR)

- Policy research
- Laboratory studies
- Capacity building
- Advocacy at national and international levels

AMR: a One Health issue

Animal

Environment

Agriculture

Human
Why animals, agriculture and environment?

- Addressing human side of the AMR problem well understood; actions initiated

- Food animal sector, a key contributor to AMR emergence
  - Increasing production and consumption of animal protein
  - Much higher levels of antibiotic used in animals (for e.g., disease prevention and growth promotion)
  - Inadequate farm biosecurity and sanitation further aggravates this issue

- Spread of AMR linked to environment and agriculture as well
  - Untreated effluent discharge from antibiotic manufacturers
  - Traditional sewage treatment plants acting as a AMR hot-beds
  - Antibiotic use in crops, a route for antibiotic residues into environment

- Important to understand linkages between antibiotic use and AMR in humans with animals, agricultural and environmental aspects
CSE’s work on AMR conducted by Food Safety programme

- **Laboratory study:** Antibiotic residues in honey, chicken meat
- Antibiotic use and waste management practices in aquaculture resistance
- **Laboratory study:** Antibiotic resistance in poultry environment
- National Action Plan (NAP) on AMR: need for greater focus on environmental spread
- Strategic and operational guidance on animal and environmental aspects of NAP-AMR for developing countries
- Integrated AMR surveillance framework for India
# CSE’s national and global engagements on AMR

## National

<table>
<thead>
<tr>
<th>Indian NAP-AMR development</th>
<th>Stakeholder in NAP-implementation</th>
<th>Work with regulators (Centre and State)</th>
<th>State Action Plan implementation</th>
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</thead>
<tbody>
<tr>
<td>• Member of Core Working Group that developed NAP</td>
<td>• Awareness and education</td>
<td>• Food</td>
<td>• Key implementation partner of Kerala’s Action Plan</td>
</tr>
<tr>
<td></td>
<td>• Surveillance</td>
<td>• Feed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Optimized antibiotic use</td>
<td>• Environment</td>
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</tbody>
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## Global

<table>
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<tr>
<th>UN-IACG</th>
<th>Engagement with inter-governmental organizations</th>
<th>Engaging with stakeholders in other countries</th>
<th>Global advocacy through Antibiotic Resistance Coalition</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Member of UN-IACG</td>
<td>• Contribute to expert technical engagement</td>
<td>• Hosting international workshops</td>
<td>• Contribute to global policies to align</td>
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CSE’s engagement with Ministry of Health Zambia

- **January, 2018**
  - CSE invites Ministry of Health, Zambia to participate in Africa-Asia Workshop on Implementation of NAP-AMR

- **March-May, 2018**
  - CSE offers to collaborate with Ministry of Health, Zambia to support the implementation of Zambia’s Multi-sectoral NAP-AMR. Offer agreed upon

- **August, 2018**
  - ZNPHI-CSE co-organize Scoping Workshop in Zambia

- **October, 2018**
  - MoU between ZNPHI-CSE signed

- **March, 2019**
  - ZNPHI-CSE co-organize Workshop on Integrated Surveillance Framework for Antimicrobial Resistance
Scoping Workshop on Implementation of Zambia’s Multi-sectoral NAP-AMR

- **Sharing of views** and **perspectives** from different Zambian stakeholders on AMR situation, across human health, animal, agriculture and environment sector

- **Scoping out gaps** and **challenges; priority areas and mitigation strategies** w.r.t. Zambia’s NAP-AMR implementation

**Participation from:**
- Zambia National Public health Institute (Ministry of Health)
- Ministry of Fisheries and Livestock
- Zambia Environment Management Agency
- Zambia Medicines Regulatory Authority
- Food and Drug Control Laboratory
- Zambia Agriculture Research Institute
- Veterinary Association of Zambia, Pharmaceutical Association of Zambia
- University of Zambia, University Teaching Hospital
- WHO, FAO, CDC, OIE
Objectives of this workshop

- **Understanding best practices** and **policies, guidance, systems** and **tools**, that enable effective NAP implementation and surveillance

- Facilitating **cross learning** among nations on AMR

- **Strengthening** the integrated AMR **surveillance framework** for Zambia
Expected Outcomes

- **Re-prioritized** NAP-AMR based on current scenario, status of implementation, feasibility and resources
- **Identification of baseline data elements** essential for AMR surveillance
- **Strengthened** Integrated AMR Surveillance framework for Zambia
Plan for three days

- Day 1
  - Perspectives on AMR surveillance—policies, systems, tools
  - Understanding on country level AMR surveillance status, plans and preparedness
    (African countries, European countries, India)

- Day 2
  - Knowledge exchange and information sharing on relevant tools and guidance for AMR surveillance
  - **Working Group 1**: Prioritizing the Multi-sectoral NAP-AMR
  - **Working Group 2**: Baseline data generation for AMR surveillance

- Day 3
  - **Working Group 3**: Framework for integrated AMR surveillance
Thank you!

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