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# **Setting the context**

**MoHCC-CSE Workshop on Implementation Status and Reprioritization of  
Zimbabwe's One Health Antimicrobial Resistance National Action Plan**

**September 28-29, 2020**

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# Centre for Science and Environment, India

- 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 four 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**
  - CSE plays an important role as a southern think tank that articulates the **perspectives and policies for the global south**



<https://www.cseindia.org/>



# Multiple modalities adopted at CSE

## Research and advocacy

### Areas of work

- Air pollution
- Climate Change
- Energy
- Environment Education
- **Food and Toxins**
- Sustainable habitat
- Municipal waste
- Water and Wastewater

## Communication for awareness

### Down To Earth

- English fortnightly on environment and development issues since 3 decades
- Hindi (national language) monthly editions introduced

### CSE website

- An effective campaigning tool that allows instant outreach

## Pollution monitoring

- **Environment Monitoring Laboratory** generates evidence through monitoring environment pollution and food contamination
- Independent information in public domain

## Education and Training

- Building capacities across stakeholders from India and the developing world
- **Anil Agarwal Environment Training Institute**

## Knowledge Portal

### India Environmental Portal

- One stop shop for open access information on environment





# Anil Agarwal Environment Training Institute

## Nimli Village in Rajasthan (~100 kms from Delhi)

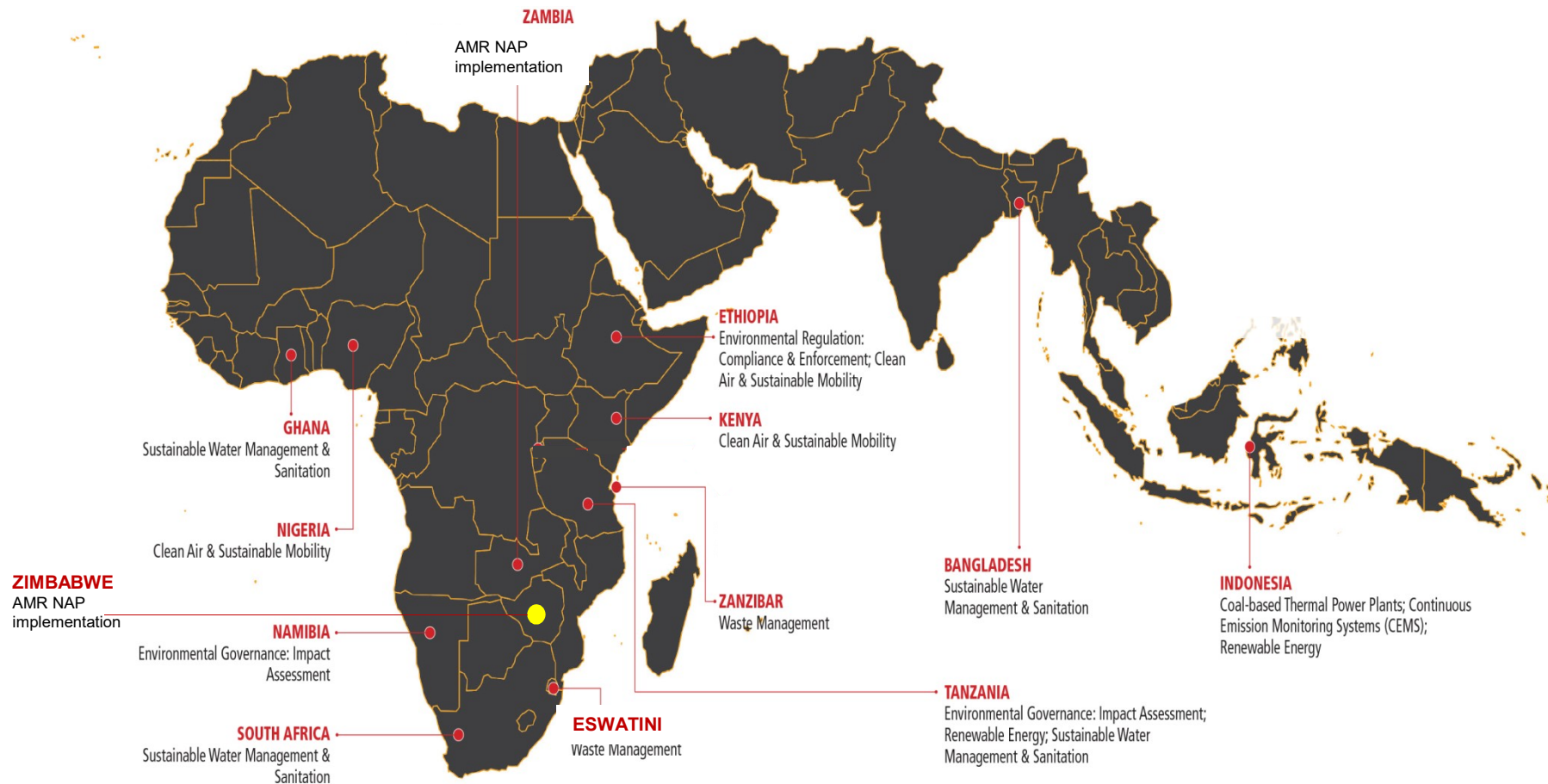
<https://www.cseindia.org/page/aaeti>



- A **learning, innovation** and **training** centre, designed to find appropriate and affordable solutions to some of the most pressing environmental problems of developing countries
- **Water positive, energy efficient, zero-waste** campus
- **Schools** of circular economy, climate change, water and waste, industrial pollution and governance, sustainable urbanization and air pollution, environmental communications



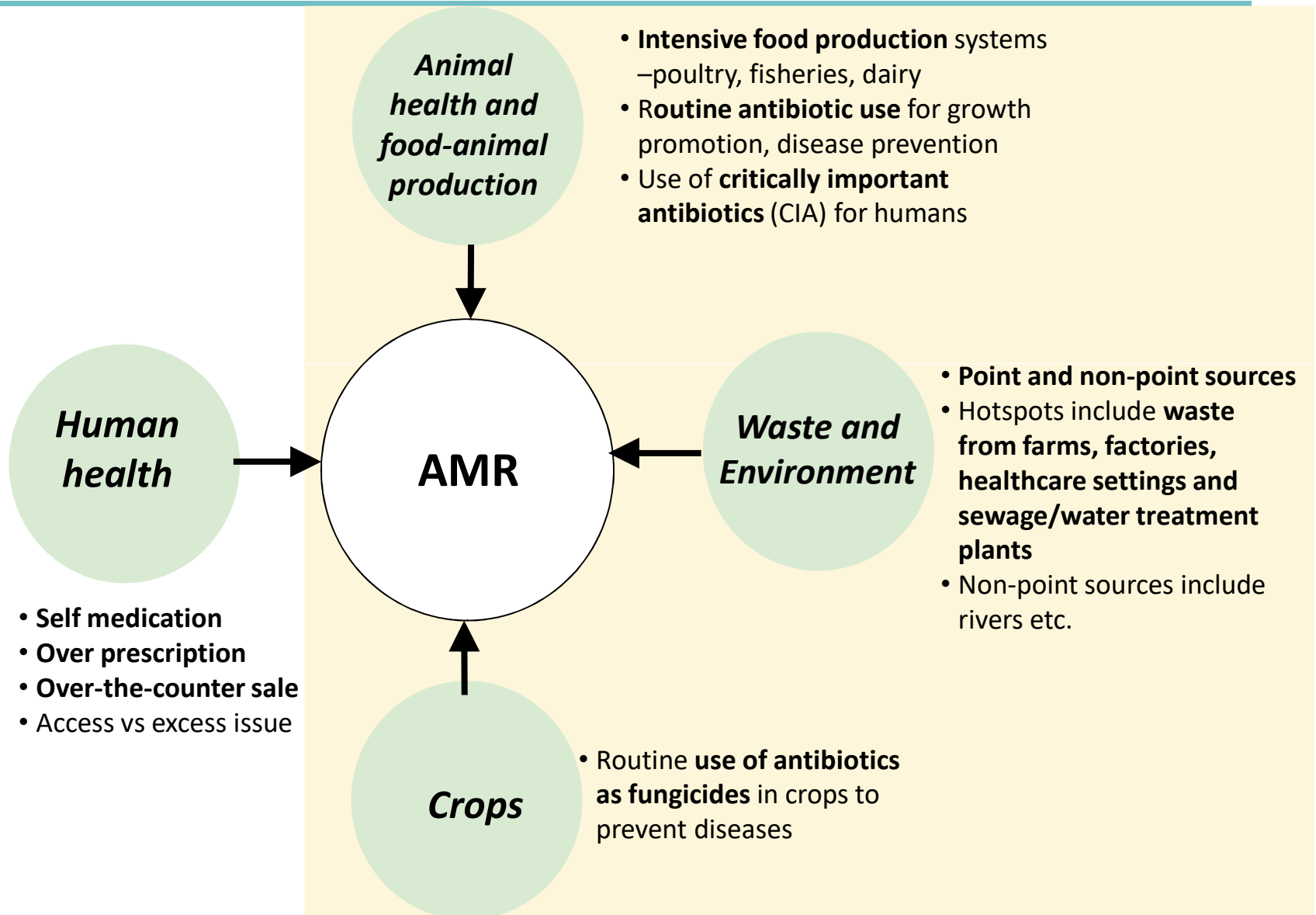
# CSE's footprint in Africa and South-Asia



**CSE programme teams work in 13 countries in Africa and Asia**



# CSE's key focus areas w.r.t Antimicrobial Resistance (AMR)







# CSE's work to help contain AMR in animal and environmental sectors in India



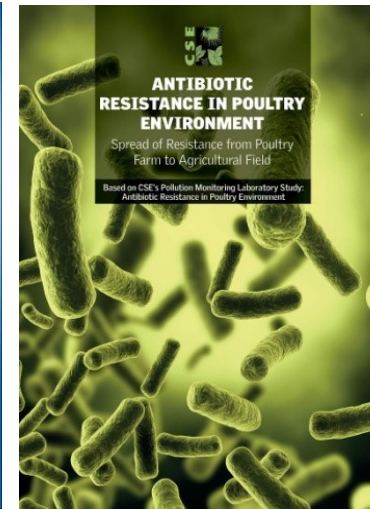
2010 (Honey)



2014 (Poultry)



2016 (Fish)



2017 (Poultry farms)



2017 (Fast food)



2019 (Crops)



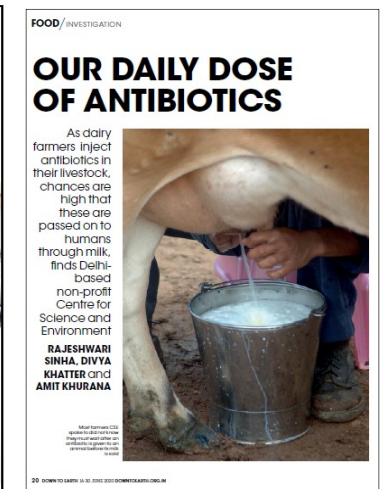
2019 (Unused drug disposal)



2020 (Feed)



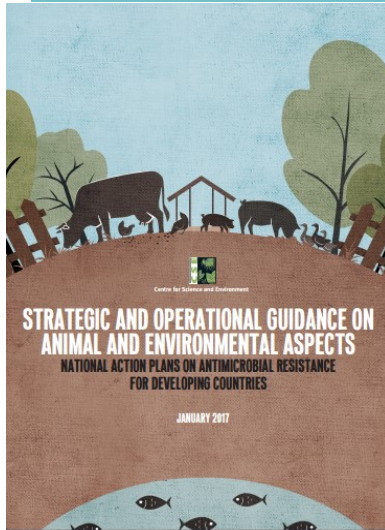
2020 (Fast food)



2020 (Dairy)

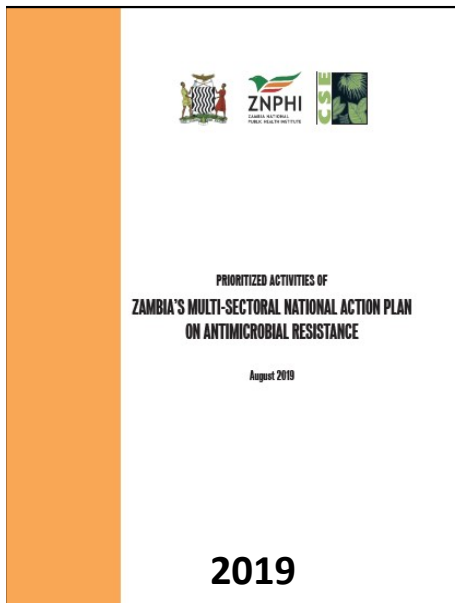


## CSE's work to support National Action Plan implementation in developing countries

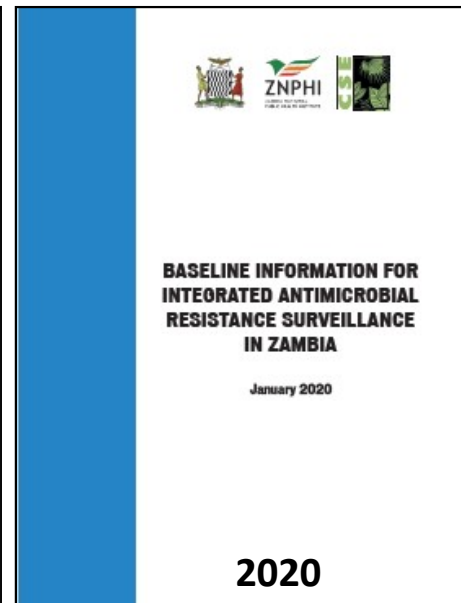


2016-17

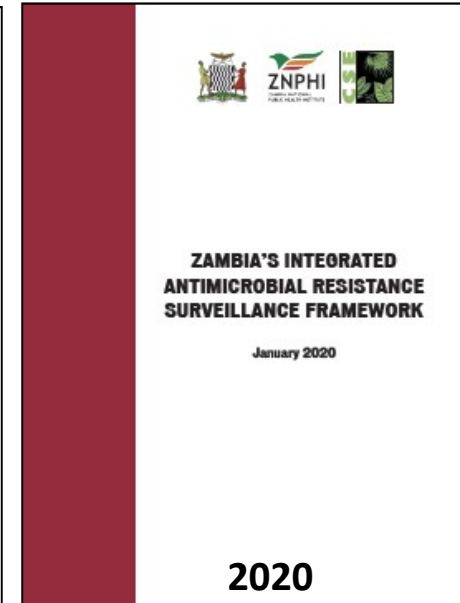
- Strategic and operational guidance on development of National Action Plans (NAPs) in **developing countries**
- Member of the **UN-InterAgency Coordination Group on AMR**
- **Global advocacy**, contribution to **expert technical consultations** of inter-governmental organizations such as the WHO and FAO



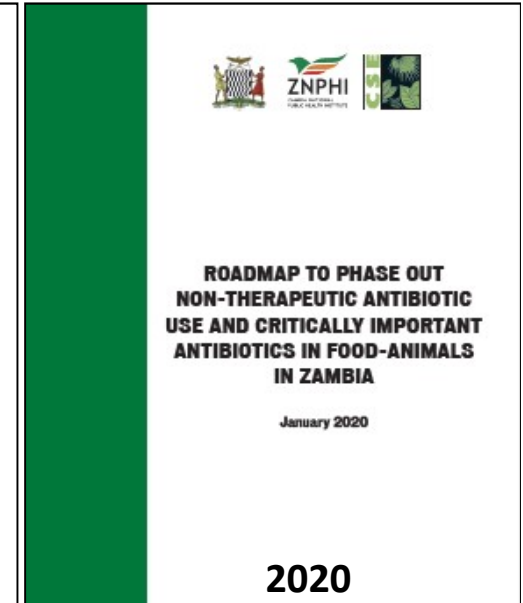
2019



2020



2020



2020





# Key issues linked to AMR-NAP implementation


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- **Implementation of NAPs**
  - Sustained political will, support and dedicated funding
  - Multisectoral nature and complexity of the AMR issue
- **Animal sector**
  - **Routine use of antibiotics** for disease prevention and growth promotion
  - Use of **CIAs** and last resort antibiotics
  - Growing **farm intensification** due to increased protein demand, limited focus on better animal husbandry
  - Awareness, enforcement, capacity issues in the sector
- **Environment sector**
  - Largely been a **neglected agenda**
  - **Limited global guidance**; UNEP only recently included
  - **Limited national expertise** and involvement
  - No **environmental standards** ( for e.g., residual antibiotics)



## Example: More food is now grown in intensive settings; the very nature of such industrial production can create crisis

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- In **high income countries**, most of food from animals is grown in intensive settings
  - In **low and middle income countries** intensification is growing due **to animal protein demand**
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- **Large-scale units** with **high stocking density** of animals/birds/fish
  - **Genetically selected breeds** for productivity (not disease resilience)
  - Confined conditions; **limited focus on animal husbandry**
  - Dependence on **commercial feed**, inputs
  - Often **geographically concentrated**; vertically integrated by large players; involves contract farming
  - Industrial systems but considered agriculture; do not get required **regulatory attention**
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- High use of **chemicals and drugs**  
(easy/economical substitute)



## Example: Structuring the environment sector w.r.t AMR is critical

Point Sources				Non-point Sources
Farms	Factories	Households/ Community	Healthcare Settings	
Waste from: <ul style="list-style-type: none"><li>• Animal farms – poultry, dairy, pig, fish etc.</li><li>• Agriculture farms</li></ul>	Effluents from: <ul style="list-style-type: none"><li>• Pharma manufacturing</li><li>• Feed mills</li><li>• Slaughter houses</li><li>• Processing units (meat, dairy)</li><li>• Effluent treatment plants</li></ul>	<ul style="list-style-type: none"><li>• Effluents from Sewage treatment plants</li><li>• Disposal of unused, expired drugs</li></ul>	<ul style="list-style-type: none"><li>• Hospital sewage</li><li>• Waste from veterinary care settings</li></ul>	Rivers, Reservoirs
				Groundwater
				Agricultural soil

Three AMR determinants that travel across the systems, sectors: Antibiotic resistant bacteria, Antibiotic resistance genes, Antibiotic residues

**AMR in the environment is a cross cutting issue. Continuous and perhaps ever-lasting interplay among AMR determinants sets the ground for resistance growing like a chain reaction**





## CSE-Ministry of Health and Child Care collaboration; MoU being finalized

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- **A Media Workshop on Antimicrobial Resistance in Africa: A Growing Scourge** held in July 2020
- **Implementation of programmes aimed at supporting the Zimbabwe AMR-NAP**
  - Creating **awareness** and **building capacity of stakeholders** such as policymakers, regulators, scientific community in health, agriculture, livestock, fisheries, drug and environment sectors as well as media on the required AMR containment efforts
  - Supporting the **reviewing of the Zimbabwe's NAP-AMR** to help prioritize for effective implementation
  - Supporting the **reviewing relevant existing policies and guidelines** such as related to food, drug, animal, agriculture and environmental sectors, and helping **modify or develop new policies/guidelines/frameworks/roadmaps** that help Zimbabwe's NAP-AMR implementation



# Workshop objectives, expectations and plan

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- **Objective**
  - **Assessment of implementation progress** of Zimbabwe's AMR-NAP (Day 1)
  - **Prioritize Zimbabwe's AMR-NAP** in view of next phase (Day 2)
- **Expectations**
  - Inputs for prioritized AMR-NAP for Zimbabwe
- **Plan after workshop**
  - Collation and compilation of inputs and discussions from group work
  - Engage with stakeholders over email to fill gaps and address queries
- **Final outcome**
  - Publish a prioritized AMR-NAP for Zimbabwe



# Thank you

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