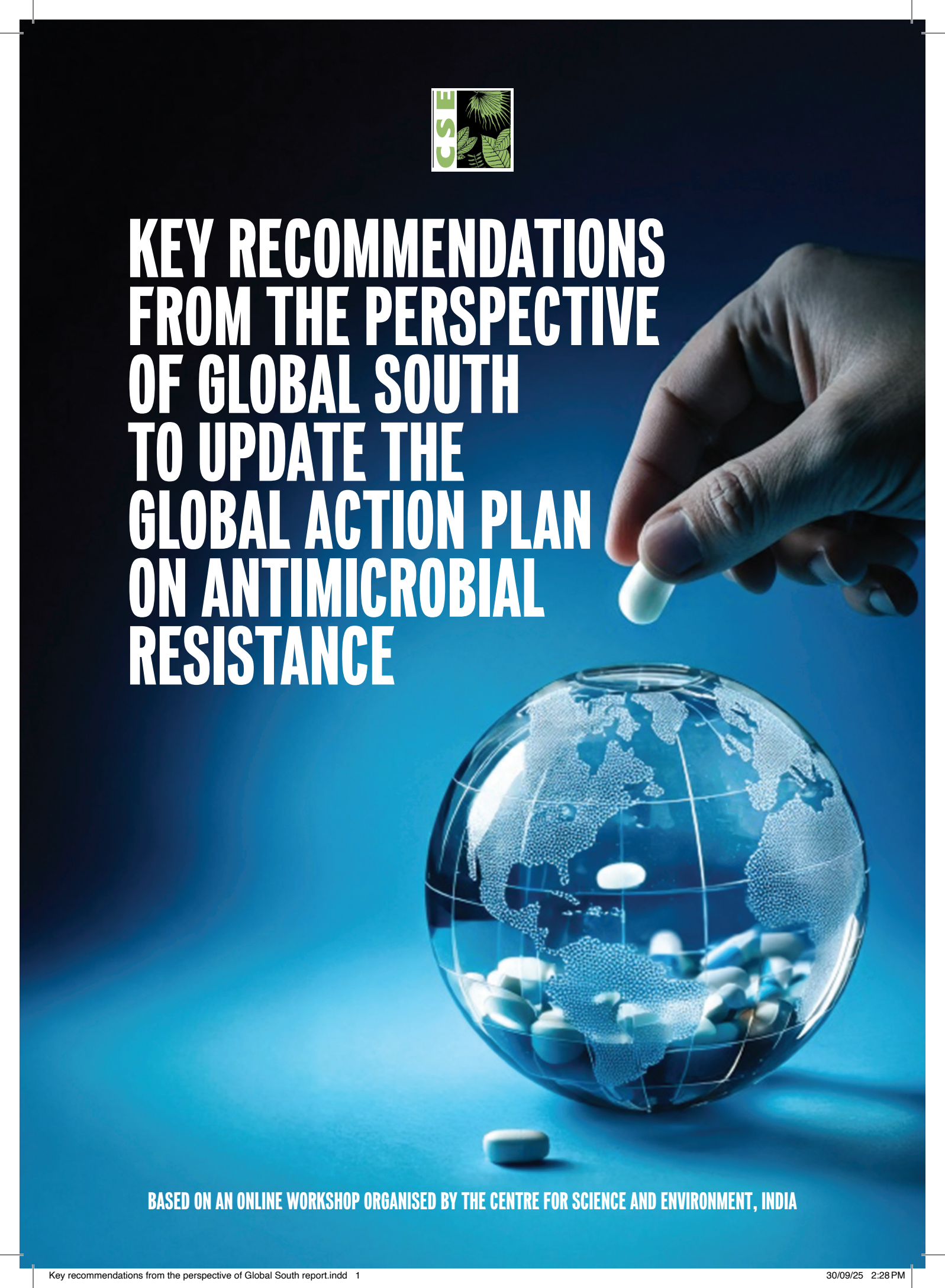
KEY RECOMMENDATIONS FROM THE PERSPECTIVE OF GLOBAL SOUTH TO UPDATE THE GLOBAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE



BASED ON AN ONLINE WORKSHOP ORGANISED BY THE CENTRE FOR SCIENCE AND ENVIRONMENT, INDIA

Acknowledgement

The Centre for Science and Environment (CSE) acknowledges the valuable contribution by experts and stakeholders at the online workshop on 'Global South Perspective to Update Global AMR Action Plan' held during September 8–10, 2025. The multi-sectoral experts were from low- and middle-income countries of Africa and Asia, Quadripartite Joint Secretariat on AMR, inter-governmental organisations, research and scientific organisations, industry as well as civil society organisations. We are also grateful to the session Chairs and lead presenters during the workshop for their specific contribution.

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BASED ON AN ONLINE WORKSHOP ORGANISED BY THE CENTRE FOR SCIENCE AND ENVIRONMENT, INDIA

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Introduction

The evolved understanding of the crisis of antimicrobial resistance (AMR) and the required global response clearly indicated that the 2015 Global Action Plan on Antimicrobial Resistance (GAP-AMR) needs revision. The Political Declaration on AMR adopted at the United Nations General Assembly in 2024 also called for updating the GAP-AMR on AMR by 2026.

The Quadripartite Joint Secretariat (QJS) on AMR had initiated this process during late 2024. In September 2025, the QJS published a zero-draft of the updated global AMR action plan for public consultation. A series of regional and global member state consultations are planned before the submission to the World Health Organization (WHO) governing bodies in November 2025, following which, the Plan is expected to be adopted at the 79th World Health Assembly in May 2026 and subsequent adoption by the Food and Agriculture Organization of the United Nations (FAO), World Organisation for Animal Health (WOAH) and the United Nations Environment Programme (UNEP).

Recognising that the updated action plan needs to be adequately informed by the realities of the Global South countries, the Centre for Science and Environment (CSE; www.cseindia.org), a non-profit policy research and advocacy organisation based out of India, organised a three-day international online workshop in September 2025 to bring together the perspectives of the Global South countries of Asia and Africa. Sunita Narain, Director General, CSE is a member of the Global Leaders Group on AMR.

The workshop brought together over 90 participants from One Health sectors including AMR stakeholders and focal points from 19 countries in Africa and Asia; experts from QJS on AMR; and representatives from global, regional and national inter-governmental organisations, research and scientific organisations, industry as well as civil society organisations.

Altogether, about 80 interventions were made on select identified topics largely connected with the strategic priorities of the GAP-AMR. These were related to sustainability of food-animal production systems and scaling up prevention in such systems; mainstreaming water, sanitation and hygiene (WaSH) and waste management; strengthening governance and financing; improving infection,

prevention and control and surveillance; ensuring affordable access to effective antibiotics, vaccines and diagnostics.

This report outlines key recommendations from the perspective of Global South to update the Global Action Plan on AMR. These are compiled by CSE based on specific inputs shared by participants. It also includes the recommendations/key takeaways from sessions presented by respective Chairs.

It is clear that the realities, challenges and possibilities of the Global South are different. There is a strong need that the updated GAP-AMR is adequately informed and captures the voice of the Global South, so that the global response to AMR crisis is truly global, effective and sustainable.

KEY RECOMMENDATIONS TO UPDATE THE GLOBAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE

1. Towards sustainable food-animal production systems to prevent AMR, zoonoses and climate change

Key recommendations to update GAP-AMR

1. **Recognise that small-holder/extensive/rural food-animal production systems are sustainable**. Being widely prevalent and crucial farming system in the Global South, such systems are resilient and well-poised to address multiple crises of AMR, zoonoses and climate change, while supporting livelihood, nutrition security and biodiversity conservation. They can play a role in public health intervention, in addition to providing a sustainable pathway for development.

2. **Highlight the importance of supporting and promoting small-holder/extensive/rural food-animal production systems** such as through affordable access to veterinary care, extension services, diagnostics, vaccination, biosecurity and ethnoveterinary medicines. Approaches which are socially embedded, economically accessible and culturally relevant will be sustainable in the long run.

3. **Emphasise the need to provide market access to small-holder producers**, such as by providing access to local distribution networks, incentives and subsidies, and through credible certification systems for consumer information which are affordable.

4. **Inform that intensive/industrial food-animal systems are the convergence points for AMR, zoonotic outbreaks, pandemics, environmental degradation and climate change and are not sustainable**. However, considering their role in food security, there is a need to invest in reducing diseases in such systems through preventive solutions like vaccination, biosecurity and good animal husbandry.

5. **Recognise the urgency to amend food-animal rearing practices in intensive practices** such as through scaling up prevention practices, committing to phasing-out antibiotic growth promoters in the short term, and routine preventative antibiotic use in the medium-long term, while promoting the consumption of sustainably grown food in parallel.

Chair recommendations/key takeaways to update GAP-AMR

Sunita Narain, Director General, CSE and Member, Global Leaders Group on AMR

1. **Include the role of small-holder farming systems and recognise the importance that these agro-silvo-pastoral systems play for livelihood security in countries of the South.** These systems are sustainable because of their benefits beyond less antibiotic use, livelihood and nutrition security, climate-change mitigation and adaptation, conserving biodiversity, safe food, waste management and its circularity.

2. **Include the need to promote and support these systems so that farmers can benefit from access to knowledge and implementation of practices, including:**
   - Increased access to veterinary guidance, low-cost diagnostic kits, vaccination, biosecurity and good animal husbandry practices.
   - Simpler extension services and access to local distribution networks.
   - Need to find market access for them and carry out backward integration. Affordable and manageable certification systems can help. They must not become a burden for farmers.
   - Economic incentives can help. Approaches which are socially embedded, economically accessible and culturally relevant will go a long way.

3. **Recognise the inherent shortcomings of the intensive food-animal systems**, as they have become convergence points of zoonotic outbreaks, AMR, environment degradation and climate change.
   - Support the need for intensive food farming systems to improve practices for sustainability, including the need for reduced use of antimicrobials through biosecurity and other measures.

4. **Promote the use of prevention for both small-holder and intensive food farming systems** as these will reduce costs to farmers and reduce the use of antimicrobials in agriculture.

5. **Recognise that communities and farmers can be stakeholders in contributing to prevention-based approaches** through knowledge and use of non-chemical approaches including ethnoveterinary medicines and other biosecurity measures.

6. **Build credible systems for consumer information through certification** but also ensure that the costs of such regulatory systems is kept affordable and within access of small-holder farmers.

7. **Commit to a short-term phase out of antibiotic growth promoter use and a long-term phase out of routine preventative use of antibiotics for group treatments.**

2. Scaling up prevention in food-animal systems to minimise disease and antibiotic use

Key recommendations to update GAP-AMR

1. **Recognise the advantages of scaling up preventive approaches in food-animal production systems**, with specific attention to intensive systems for preventing disease and antibiotic misuse and overuse. While farm needs of preventive solutions may differ and require customisation, such approaches, if scaled up, can benefit public health, ecosystem and environment, in addition to farm productivity and profitability. Besides, knowledge gaps related to preventive solutions across stakeholders must be addressed, preferably through a participatory approach for desired behaviour change.

2. **Emphasise that the use of antibiotics for disease control and prevention is not the 'real' prevention and must be phased out.** National and sub-national stakeholders should appropriately be guided and encouraged to phase out such use with a definitive timeline. Such use has been earlier found to increase in certain European countries which had prohibited the use of antibiotic growth promoters. Such non-therapeutic use is often viewed as easy and economical alternative than 'real' preventive measures in settings with cheap and easily available antibiotics.

3. **Recognise that promotion of process-centric preventive approaches should receive adequate focus in addition to product-centric solutions for maximum gains.** Efforts and incentives to upscale farm management, good animal husbandry, proper housing and clean water, biosecurity and waste management must be upscaled in addition to pushing for vaccination and diagnostics. The process-centric initiatives complement product-based approaches and could be cost-effective while creating a long-term impact.

4. **Highlight the need for 'affordable access' to and 'incentives' for preventive solutions**. In the Global South, vaccines are often expensive than antibiotics,

particularly for small-holder farmers. Maintaining vaccine effectiveness such as through vaccines for local strains, cold-chain infrastructure, laboratories and manufacturing at the local level, and reducing dependence on vaccine imports can improve affordability and accessibility of effective vaccines. In addition, access to appropriate veterinary services needs to be focused. Farmers also need to be supported through economic incentives and subsidies for greater adoption of preventive solutions.

5. **Recognise the preventive role played by 'ethnoveterinary medicines' and encourage their systemic adoption.** Ethnoveterinary medicines or traditional herbal preparations have come across as a cost-effective and successful alternative, such as in the dairy and poultry sector, while reducing the dependence on veterinary extension services that are otherwise limited in the Global South.

Chair recommendations/key takeaways to update GAP-AMR

Amit Khurana, Director, Sustainable Food Systems Programme, CSE

1. Broad takeaways

- **Agriculture and livestock are critical** to a large part of Global South population (particularly rural population). Agriculture should be livestock-centric and not chemo-centric. It will also help with dung, soil microbiome, etc.

- **Prevention interventions are good not just for animal health** or welfare but also for public health, environment and ecosystem.

- **The zero draft reflects that preventive** approach is well integrated across One Health sectors and different elements of the global AMR action plan.

There are challenges, possibilities and realties of the Global South that need to be reflected in the updated global AMR action plan:

- **The challenge of awareness, knowledge gap, or correct information** among animal health workers, veterinarians, para veterinarians and farmers. There needs a shift in awareness creation towards behaviour change through roundtable or participatory approach; that antibiotic use is not prevention and there are alternatives; that natural solutions of ethnoveterinary medicines can

work. It would also be useful to demonstrate through farms or farmer field schools and train community animal health workers.

- **The challenge of 'why' a farmer would focus on prevention?** It is about where the farmer finds value—containing AMR or maintaining productivity. This is linked to the challenge of economic case, incentives or subsidies and 'who' will pay for desired change in behaviour.

- **The challenge of affordable access to solutions** like vaccines and veterinary services, specifically if antibiotics are cheaper and come across as easy solution.

- **The importance of local solutions** such as the ethnoveterinary medicines and vaccines for local strains for locally relevant diseases; importance of localised plans with local implications, local solutions and benefits to cause behaviour change and make them sustainable solutions.

2. Specific takeaways

- **Preventive interventions need to be customised** depending upon extensive or intensive farming system or food-animal species reared.

- **Adequate focus on process-centric preventive solutions** such as farm management and biosecurity, in addition to product-centric solutions like vaccination.

- **Veterinary services:** High cost of veterinary services for small farmers, the issue of their access and that of correct information. There is a need to strengthen and train them and improve diagnostic services.

- **Biosecurity:** It is considered very important. Large-scale commercial farms have the capacity and they know that there is a high cost of not doing it right. It is important to have animals free from pathogens before they enter production. It is also necessary to isolate sick animals and quarantine new animals before entering farms. But it can be capital intensive at times. Besides, biosecurity audits can help in compliance.

- **Vaccination:** It is popular but there is an issue of vaccine availability for relevant diseases. There is a need for customised vaccination strategies and schedules for all animals. Focus is needed on laboratories, manufacturing facilities, quality controls, and availability of vaccine for local strains (instead of imported vaccines). Issues to be addressed include those related to handling

and storage and cold-chain infrastructure/supply chain to avoid vaccine failure as well as high cost of vaccines. Vaccines are not seen as a quick and easy solution compared to antibiotics.

- **Issue of affordable access to preventive solutions** as most are small-holder farmers and antibiotics are easily available and cheaper than vaccines.

- **Alternatives:** Probiotics are more popular among others. However, more research is needed on alternatives in general—from probiotics to phages. There are certain quality issues reported (alternatives mixed with antibiotics), but it is a growing field with a lot of available options.

- **Traditional solutions like ethnoveterinary medicines as an alternative:** There is a need to highlight their importance; their use is feasible, cost-effective and there are success stories. Farmers are using herbals and finding that it works (Malawi). More studies will help and it needs to be done deliberately. Indian example shows it is an evidence-based approach.

- **How to convince farmers:** There is a need for studies and evidence—what AMR is going to cost, how antibiotic use/nonuse will cost, etc. For farmers, it is more about productivity and there is a need to talk differently. Empowering farmers is critical.

- **Access to clean water:** It is very critical and can prevent entry of a lot of diseases; often only talked about in the context of human health, not animal or food settings.

- **Antibiotic use as prevention is not real prevention**: It should be phased out.

- **Antibiotic access:** Over-the-counter sales needs to stop, and falsified and spurious antibiotics need to be controlled.

- **Waste management:** It is important to consider both solid and liquid waste to reduce spread of resistance from farms and prevent cross-sectoral transfer of AMR determinants through waste, such as through litter from poultry farm to aquaculture as fertiliser. Manure from farm waste should be made AMR safe before it is applied to land.

- Other preventive approaches or practices include i**mproved genetics** (**breeds**), **environmental controls, and proper housing.**

3. Mainstreaming Water, Sanitation and Hygiene (WaSH) and waste management to contain AMR from environmental routes

Key recommendations to update GAP-AMR

1. **Emphasise that Water, Sanitation and Hygiene (WaSH) needs to be mainstreamed in preventing AMR**, and that access to basic services should be universal, focusing on adequate WaSH infrastructure and services in the community, in addition to animal and human healthcare facilities. With clear government accountability mechanisms, mainstreaming WaSH should reflect principles of human rights and equitable development. WaSH indicators should be adopted and WaSH awareness and behaviour should be promoted.

2. **Underline that effective management of waste is the cornerstone of preventing environmental spread of AMR**, as it is prudent for low- and middle-income countries (LMICs) in addition to advantages like cost-effectiveness, better returns on investment and being less technically challenging. Appropriate treatment and management of waste from farms, antibiotic manufacturing, human and animal healthcare settings, and community waste needs to be the focus, including ensuring that such waste is AMR-safe, if reused due to gains of circular economy. Extended producer responsibility mechanisms should also be incorporated.

3. **Highlight the need of an ecosystem for technology, innovation and R&D for WaSH and managing environmental AMR** in view of Global South. Focusing on local, contextual, cost-effective and affordable solutions, such an ecosystem can promote development of adaptable technologies, enable equitable technology transfer mechanisms for AMR surveillance and waste treatment. It can also facilitate collaborations for funding and expertise, including public-private partnerships and implementation research.

4. **Incorporate the need for optimised environmental AMR surveillance which is targeted and action oriented** without burdening investments and resources, and jeopardising other actions to contain AMR in Global South countries. Research and pilot implementation should precede large-scale investments on AMR surveillance. While environmental AMR surveillance has a clear biological component, a chemical management approach can be beneficial which includes other priority pollutants.

5. **Outline clearly the specific area of intervention instead of using the umbrella term 'environment' across the GAP-AMR.** This should help clarify specific action needed with respect to key sources of AMR pollution, and key areas of its impact.

Chair recommendations/key takeaways to update GAP-AMR

Sabiha Essack, Professor of Pharmaceutical Sciences and South African Research Chair in AMR and One Health, University of KwaZulu-Natal, South Africa

1. Prevention

- WaSH infrastructure, WaSH education and awareness and WaSH behaviours will prevent infections; preclude the need for antimicrobials and the subsequent selection pressure for AMR.

- Waste management will prevent the pollution of the environment which will subsequently prevent the evolution and transmission.

2. Water, Sanitation and Hygiene (WaSH)

- Intentional waste management at AMR hotspots:
  - Waste from agricultural settings: Manure-based fertilisers, reused water for irrigation.
  - Health and veterinary systems: Hospital effluent and laboratory waste.
  - Communities: Disposal of antimicrobial medicines.

- Using cost-effective, contextual innovations such as decentralised purification systems, modular plug and play wastewater treatment plants etc. for the treatment of effluents at source.

- WaSH indicators could include:
  - Percentage of population with safe drinking water.
  - Percentage of population with safe sanitation.
  - Percentage of population practicing hand hygiene in households, heath facilities, schools, public places, etc.
  - Percentage of wastewater treated from communities, hospitals, agriculture and industry
  - Percentage of unused antimicrobials safely disposed.

- It will cost USD 0.60/person/year in the least developed countries to provide universal access to WaSH in healthcare facilities.

3. Environmental Dimensions of AMR

- The AMR discourse lacks a clear definition of the environment—natural vs. built environment.
  - Aquatic environment: Wastewater, surface water, groundwater, irrigation water, sludge and slurry.

- Environmental dimension of AMR has both chemical and microbiological components requiring distinct mitigation strategies.

- Capacity strengthening is required to address gaps in:
  - AMR and residue surveillance in the environment,
  - Risk assessment and mitigation strategies,
  - The development and enforcement of legislation—discharge limits, maximum allowable limits, and
  - Technology transfer to adapt and adopt biotechnology tools for local contexts.

4. Strengthening multi-sectoral governance and financing for sustainable action against AMR

Key recommendations to update GAP-AMR

1. **Emphasise the need for a strong One Health governance at national, sub-national and grassroot levels**, to strengthen multi-sectoral coordination and implementation, preferably led by highest government levels. A national level assessment of existing challenges and possibilities will inform future governance. Sector-specific governance, accountability frameworks and inter-governmental forum at a national level will support One Health governance.

2. **Embedding AMR into broader national strategies** such as national health policy, food safety frameworks, climate and disaster resilience agendas will integrate AMR into broader development planning and budgeting.

3. **Highlight the benefits of coordination, collaboration and accountability among countries** for effective regional governance through forums and platforms like African Union, Association of Southeast Asian Nations. A central agency at the national level can lead this, while the civil society can ensure accountability of implementation at the national and regional level.

4. **Underline the critical need for dedicated financing for AMR at the national level** as part of the budgets of the One Health ministries, while recognising the importance of assessment of available resources, prioritisation, evidence generation, economic implication of AMR and cost-benefit analysis to garner required political will. In addition, integration with broader health issues, such as universal health coverage and others such as WaSH programmes, as well as innovative financing mechanisms should be considered.

5. **Support AMR financing by integrating with and leveraging existing global and national financial structures and instruments** such as Pandemic Fund, Green Fund, Global Fund. Approaches like pooled or basket-funding, such as

across healthcare sectors, can provide thrust to the national AMR action, in addition to exploring private sector financing at the national level.

6. **Underscore the role of predictable and sustainable financing at the global and national level,** particularly in view of current challenges such as shifts in financing mechanisms and funding landscape due to exit of traditional donors, debt crisis affecting national budgets, and increasing issues of conflict, migration and inequality.

Chair recommendations/key takeaways to update GAP-AMR

Marc Mendelson, Head, Division of Infectious Diseases and HIV Medicine, Groote Schuur Hospital, University of Cape Town, South Africa

1. Different governance models considered

- Embed AMR programme within highest levels of government—office of the President, Prime Minister, etc.

- Sub-national governance
  - For example, provincial/state governments may be funded by block grants transferred from national government, and have the responsibility to allocate funds across sectors—including to the provincial public health services that are managed by their health departments.

- Embed AMR into other programmes and national priorities
  - Challenge to ensure it does not get lost

- Use of a vertical programme structure such as TB
  - Challenge for a One health response

- Thailand's three-tier governance—National Committee, Coordinating Committee and Coordinating Centre.

2. Participants voiced the importance of:

- 'Bottom-up' governance—e.g., farmers being at the heart of governance of food.

- Sector-specific governance—human, animal and environmental.

- Sub-national agencies.

- Patient-led civil society in holding governments accountable.

3. Strengthening AMR financing streams in GAP 2.0

Participants considered the following:

- Embedding AMR financing into existing health funding streams.
- Challenge of AMR-specific vs AMR-sensitive funding.
- Basket financing (weighted group of financing instruments) like for the sustainable development goals (SDGs).
- An increased role for pooled funding mechanisms, e.g., Antimicrobial Resistance Multi-Partner Trust Fund.
- Employing a vertical programme funding approach—complexity of One Health AMR?
- Role of high-worth individuals—examples during COVID pandemic in India.
- Unsustainability of reliance on external funding—critical to have a national budget line.
- Importance of using data to strengthen case for acquisition of resources.
- Call to the Global South governments for domestic financing and accountability.
- All countries to have finance ministers as part of their governance structures.

5. Improving infection, prevention and control, and AMR/ antimicrobial use surveillance

Key recommendations to update GAP-AMR

1. **Emphasise that prioritised and low-cost surveillance across One Health sectors is critical**, particularly to fill the gaps and get policymaker support, such as in areas related to AMR surveillance in community, AMU surveillance in hospitals and livestock, wastewater surveillance in aquaculture and antibiotic manufacturing. Also, recognise the role of strong laboratory networks, supporting legislations, surveillance data dashboards, and leveraging artificial intelligence and genomics, in addition to involving private sector in surveillance initiatives.

2. **Highlight the role of WaSH in infection, prevention and control** (**IPC**) and surveillance, focusing on healthcare facilities, rural infrastructure and decentralised treatments. Include the need for greater investments in WaSH and research for technologies to remove antibiotics in WaSH facilities.

3. **Recognise that IPC has a critical role across One Health sectors**, supported by national level IPC programmes and designated focal point. Also, recognise the need to promote biosecurity and affordable and effective vaccination strategies for the livestock sector, including addressing concerns such as related to misinformation and vaccine hesitancy. IPC in human and animal health will be effective through measures such as scaling up the adoption of standard precautions as basic measures, use of low-cost, rapid accurate diagnostics, and effective management of infections in hospitals and infections of surgical sites.

4. **Include participatory approach for stewardship as an innovative way to support IPC.** Taking an example from the state of Kerala in India, such an approach can involve primary healthcare providers in the community, secondary and tertiary hospitals, and enables antibiotic stewardship based on local antibiograms and antibiotic reduction targets set up by local stewardship

and IPC committees. In general, stewardship initiatives should aim to delink incentives from prescription volumes.

Chair recommendations/key takeaways to update GAP-AMR

Tochi Okwor, IPC Programme Coordinator and Chair, AMR Coordination Committee, Centre for Disease Control and Prevention, Nigeria

1. There is a need to move from frameworks to real implementation on the ground.

- Sustainability needs to be addressed.
- The environmental sector has largely been left out, creating a significant gap that must be bridged.
- Develop measurable indicators for tracking progress in the environmental sector and integrate these into One Health dashboards.
- Address challenges in implementation such as inadequate funding, lack of dashboards, and political barriers.
- Include AMR in school curricula.
- Translate what we have in the NAP into other national plans.
- Set time-bound targets for AMR and IPC progress.

2. Infection Prevention and Control (IPC)

IPC remains a major challenge, and its role in combating AMR is underestimated, despite being one of the most impactful interventions.

The next Global Action Plan (GAP) should:

- Highlight the drivers of infection, with emphasis on WaSH, especially weak rural infrastructure.
- Promote innovative and integrated approaches, avoiding verticalisation and artificial boundaries.
- Quantify how WaSH improvements contribute to AMR reduction.

- Strengthen the prevention and surveillance of healthcare-associated infections (HAIs), including surgical site infections (SSIs).

- Promote standard precautions as the foundation of facility-based prevention.

- Ensure access to accurate, low-cost diagnostics.

- Assess the role of IPC products (e.g., disinfectants) in driving AMR.

- Expand affordable vaccination for humans and animals, alternatives to antibiotics, and **address anti-vaccination concerns.**

- Use legislation, especially in animal health, to encourage prevention over antimicrobial dependence.

- Manage effluents containing antimicrobial residues and infectious waste from hospitals and abattoirs.

3. AMR/AMU surveillance

- Surveillance must be coordinated across human, animal, agrifood, plant, and environmental sectors, with data analysed and translated into actionable information.

- **Priorities for the next GAP:**
  - Strengthen labs to detect AMR, including fungal pathogens, and expand genomic capacity.
  - Ensure surveillance covers hospitals, communities, and the environment (including water and wastewater, with supporting legislation).
  - Improve cross-sector data sharing, coordination and feedback, avoiding fragmentation.
  - Generate representative data through prevalence surveys and granular analysis to identify stewardship gaps.
  - Aggregate data by infection type to target awareness, education and interventions.
  - Link private sector participation to compliance and track economic drivers of misuse.
  - Scale up national surveillance systems to meet WHO GLASS, WOAH ANIMUSE, and FAO InFARM standards.
  - Leverage AI, digital tools, and academic contributions to strengthen data management and analysis.
  - Promote participatory stewardship as part of surveillance.

6. Ensuring affordable access to effective antibiotics, vaccines and diagnostics

Key recommendations to update GAP-AMR

1. **Emphasise that access to effective antibiotics is considered as a public good and governments are responsible for providing equitable access.** Ensure that solutions to address the lack of access to effective antibiotics, vaccines and diagnostics are based on equity considerations. These solutions should be context specific and tailored while taking into account gaps in access, including in geographies affected by natural disasters, emergencies, conflict zones and neglected diseases.

2. **Encourage nations to connect and leverage stewardship, diagnostics and innovation to improve access to existing and new antibiotics.** Global South countries can be benefited through measures like pooled procurement, local forecasting, shortages and stock-out estimations, essential list of antibiotics, post-marketing surveillance to identify sub-standard drugs and appropriate regulations. Significant improvements in access can be seen through laboratory strengthening, point-of-care diagnostics, making health technologies affordable, use of artificial intelligence, cloud-based analytics and digital tools.

3. **Highlight the importance of local manufacturing to improve affordability, access to effective antibiotics and vaccines for human and animal health.** Supported by measures like tax exemptions, subsidies, duty-free importation, support to exports and compulsory licensing, this will also help in building resilience in the supply chain.

4. **Emphasise the need for improving access by developing and leveraging local research agenda and capabilities for humans and animals.** A locally developed antibiotic will not just be effective but will also be affordable. Vaccines for local strains and those which are thermo-stable will not only reduce cost barriers of imported vaccines, but will also be more effective, including in remote areas. Supported by regulatory frameworks and clinical trial ecosystems, this can help bring equity in innovation.

5. **Underline the need for dedicated domestic financing, innovative funding mechanisms to fill the emerging funding gaps.** It is important to link public financing of research and development (R&D) with enforceable access conditions. Also, highlight the need to **encourage collaborations** with private stakeholders and among Global South countries for equitable access to antibiotics, vaccines and diagnostics.

Chair recommendations/key takeaways to update GAP-AMR

Leena Menghaney, Lawyer, Public Health, Pharmaceuticals and Access, India

- The discussion in this session underscored the urgent challenge of access to life-saving antibiotics in fragile and conflict-affected regions. Participants highlighted that this access is further compromised by blockades on humanitarian aid, which undermines the ability to deliver essential medical supplies to vulnerable populations.

- Antibiotics, diagnostics, vaccines, and other prevention tools to tackle antimicrobial resistance (AMR) are public goods. Ensuring their affordability and availability is a public health priority to tackle the AMR emergency. Participants further stressed that access conditions must be built into R&D financing by member states, to guarantee that publicly funded innovation leads to products that are accessible and affordable for all. In addition, participants noted that member states must also address the challenge of developing vaccines adapted to regional needs, ensuring that innovation responds to local epidemiology and health priorities.

- Participants also noted that the Global Action Plan on AMR (2016) placed strong emphasis on stewardship and surveillance but did not create binding obligations on member states regarding access. Its language on access and equity was considered weak. Most speakers further highlighted that while the 2016 Global Action Plan and subsequent National Action Plans (NAPs) emphasised the problem of excess use of antibiotics in many LMICs, they neglected the equally critical challenge of lack of access to Watch and Reserve antibiotics. This oversight has left serious access gaps for patients in urgent need of these life-saving medicines.

- It was highlighted that there is a lack of reliable data on gaps in access and coverage, which makes it difficult to design effective interventions. These challenges also differ across therapeutic areas, adding further complexity. The

expert stressed the strong need for operational research and evidence on access and equity, particularly for diagnostic tools and antibiotics.

- On access gaps, speakers noted that the lack of appropriate diagnostics is a major driver of disease burden among vulnerable populations. Irrational use and access also vary significantly across disease areas. Civil society activism in TB was highlighted as a key factor in addressing diagnostic access gaps, and participants emphasised that such gaps must be systematically measured in other therapeutic areas as well. Member states were urged to adopt and implement the WHO Essential Diagnostics List (EDL) and link it to public procurement and distribution in public health systems to ensure equitable access to quality diagnostics.

- Experts also raised concern over shortages and stock-outs of antibiotics and diagnostic commodities, identifying them as a persistent barrier to access. They stressed that member states should be obligated to establish mechanisms to monitor supply disruptions and ensure timely availability.

- In addition, several speakers emphasised pooled procurement as a key strategy to secure sustainable access to essential antibiotics. They welcomed the mention of the SECURE initiative in the draft text, but stressed that regional mechanisms are critical to strengthen supply chains, improve forecasting for difficult-to-procure antibiotic formulations, and enhance quality assurance. It was further highlighted that supply chains are weakest at the level of primary health centres, which stock the access group of antibiotics being closest to communities, making it essential to prioritise strengthening supply chain.

- Several experts also emphasised the need to strengthen national drug regulatory authorities to tackle the public health threat of substandard medicines, including antibiotics. These are genuine drugs that fail to meet quality, strength, purity, or packaging standards. Strengthening regulatory systems is essential to ensure that people have access not just to antibiotics, but to quality-assured antibiotics.

- It was emphasised that the high cost of health technologies is itself a major access barrier. They outlined concrete steps states could take to address this challenge, including adopting measures to overcome monopolies and lack of competition, and pursuing industrial policies that drive innovation and create market competition to lower prices.

- In addition, a speaker strongly emphasised that universal healthcare systems, backed by legislation to implement them, are critical to addressing access gaps faced by patients and communities for both antibiotics and diagnostics.

- Several participants highlighted that emerging gaps due to reductions in funding threaten implementation of NAPs. They suggested that members states should ensure that national health budgets ensure adequate resources for NAP implementation.

- Speakers also highlighted the veterinary dimension of AMR. Access for farmers to free veterinary services is critical, and antibiograms for veterinary use were noted as crucial tools for guiding empirical antimicrobial treatment. They provide a periodic profile of bacterial susceptibilities to various antibiotics used by veterinarians, ensuring judicious and effective use of antimicrobials in animals.

Recommendations for member states negotiating the Global Action Plan:

1. Ensure uninterrupted humanitarian access to antibiotics and other essential health products in fragile and conflict-affected regions.

2. Treat antibiotics, diagnostics, vaccines, and prevention tools as global public goods, ensuring affordability and equitable distribution.

3. Link public financing of R&D to enforceable access conditions so that innovation translates into equitable access and availability.

4. Ensure R&D addresses regional health needs, particularly through the development of vaccines adapted to local epidemiology.

5. Strengthen the revised Global Action Plan by creating binding commitments on access and equity, not just stewardship and surveillance.

6. Address the dual challenge of excess use of Access antibiotics and lack of access to Watch and Reserve antibiotics in LMICs.

7. Invest in operational research and data collection to identify gaps in access and coverage across different therapeutic areas.

8. Measure and address diagnostic access gaps across diseases, building on lessons from TB activism. Encourage member states to adopt and implement

the Essential Diagnostics List (EDL) and link it to procurement by health systems.

9. Establish mechanisms to monitor shortages and stock-outs of antibiotics and diagnostics to ensure timely and reliable supply.

10. Adopt policies to address high prices of health technologies, including steps to overcome monopolies, stimulate competition, and leverage industrial policy for innovation.

11. Enact and strengthen universal healthcare systems through legislation to close access gaps for patients and communities.

12. Mobilise resources to address emerging funding gaps for NAP implementation, including contributions from philanthropies and national health budgets.

13. Strengthen national regulatory authorities to ensure the availability of quality-assured antibiotics and prevent the circulation of substandard medicines.

14. Support pooled procurement and regional mechanisms to secure supply, strengthen forecasting, improve quality assurance, and prioritise strengthening supply chains at primary health centres closest to communities.

15. Ensure access for farmers to veterinary services and utilise veterinary antibiograms to guide antimicrobial use.

Annexure: List of experts

Experts who made specific interventions

SESSION 1

TOWARDS SUSTAINABLE FOOD-ANIMAL PRODUCTION SYSTEMS TO PREVENT AMR, ZOONOSES AND CLIMATE CHANGE

SPEAKERS

Sunita Narain
Director General, CSE and Member, Global Leaders Group on AMR

Naphtal Mwanziki,
Directorate of Vet. Services, State Deptt. for Livestock Development, Kenya

Denis K Byarugaba,
Professor of Microbiology, Makerere University, Uganda

A V Hari Kumar,
Deputy General Manager and Group Head, Animal Health Group, National Dairy Development Board, India

Dishon Muloi,
Scientist-AMR/ Epidemiology, International Livestock Research Institute, Kenya

Victor Chishimba,
Program coordinator, AMR Coordinating Committee, Zambia Community Health Initiative

Annisa Rachmawati,
Prog. Manager, Center for Indonesian Veterinary Analytical Studies, Indonesia

K S Grewal,
General Manager, National Sales, Keggfarms Pvt. Ltd., India

Jyoti Misri,
AMR Specialist, FAO India

Coilin Nunan,
Scientific Adviser, Alliance to Save Our Antibiotics, United Kingdom

Anders Dalsgaard,
Senior Scientific Consultant, International Centre for Antimicrobial Resistance Solutions

Amit Khurana,
Director, Sustainable Food Systems Programme, CSE

SESSION 2

SCALING UP PREVENTION IN FOOD-ANIMAL SYSTEMS TO MINIMISE DISEASE AND ANTIBIOTIC USE

SPEAKERS

Amit Khurana, Director, Sustainable Food Systems Programme, CSE

M A R Priyantha, Pr. Scientist, Deptt. of Animal Production and Health, Sri Lanka

N Punniamurthy, Professor Emeritus, University of Trans-Disciplinary Health, Sciences and Technology

Pondpan Suwanthada, Regional AMR Project Officer, Asia and the Pacific, WOAH

Mwapu Ndahi, Federal Ministry of Livestock Development, Nigeria

Emmanuel Isingoma, AMR Focal Point, Min. of Agriculture, Animal Industry and Fisheries, Uganda

Canaan Tinashe Hodobo, One Health Secretariat, Zimbabwe

Peter Mwale, Animal Health Expert, Malawi Veterinary Association, Malawi

Tenaw Andualem Tadege, AMR Program Lead, FAO Ethiopia

Rajeshwari Sinha, Sr. Programme Manager, Sustainable Food Systems Programme, CSE

SESSION 3

MAINSTREAMING WASH AND WASTE MANAGEMENT TO CONTAIN AMR FROM ENVIRONMENTAL ROUTES

SPEAKERS

Sabiha Essack, Professor of Pharmaceutical Sciences and South African Research Chair in AMR and One Health, University of KwaZulu-Natal, South Africa

Kate Olive Medlicott, Team Lead, Sanitation and Wastewater, WASH Team, WHO

Mishelle Govender, Chief Director, Hazardous Waste Management and Licensing, Deptt. of Forestry, Fisheries and the Environment, South Africa

Oluwatoni Akinola, AMR Programme Manager, DRASA Health Trust, Nigeria

Betty Mbolanyi, Principal Environment Officer and One Health Focal Person, Min. of Water and Environment, Uganda

Tracey Kudzanai Mubambi, One Health Secretariat, Zimbabwe

Eunice Ubomba-Jaswa, Research Manager, Water Quality and Health, Water Research Commission, South Africa

Lakshika Gunaratne, Development Officer, Central Environmental Authority, Sri Lanka

Aeorangajeb Al Hossain, Health Specialist, WaterAid, Bangladesh

Swati Subodh, Lead, AMR Programme, Centre for Cellular and Molecular Platforms, India

Jyoti Joshi, Senior Science Advisor, International Centre for Antimicrobial Resistance Solutions

Neeraj Kumar, Dy. Programme Manager, Sustainable Food Systems Programme, CSE

SESSION 4

STRENGTHENING MULTI-SECTORAL GOVERNANCE, FINANCING FOR SUSTAINABLE ACTION AGAINST AMR

SPEAKERS

Marc Mendelson, Head, Division of Infectious Diseases and HIV Medicine, Groote Schuur Hospital, University of Cape Town, South Africa

Evelyn Wesangula, Senior AMR Control Specialist-One Health Sector, East, Central and Southern Africa Health Community, Tanzania

Jean Pierre Nyemazi, Director, Quadripartite Joint Secretariat on AMR & Global Coordination and Partnership, WHO

Nithima Sumpradit, Head of System Development, FDA, Min. of Public Health, Thailand

Azza Al Rashdi, Head of Bacteriology, Central Public Health Laboratories, Center for Disease Control and Prevention, Min. of Health, Oman

Purnamawati Sujud, Former AMR Committee Member, Indonesia

Kushlani Jayatilleke, Consultant Microbiologist, Sri Jayewardenepura General Hospital, Sri Lanka

Sreska Shrestha, Dy. Chief Medical Lab Technologist, National Public Health Lab, Nepal

Muhammad Usman Zaheer, Regional AMR Surveillance and One Health Specialist, FAO RAP

Chizimu Joseph, AMR National Focal Point and Coordinator, Zambia National Public Health Institute

Betty Mbolanyi, Principal Environment Officer and One Health Focal Person, Min. of Water and Environment, Uganda

Siana Mapunjo, AMR consultant, Min. of Health, Tanzania

Theresa Hogenhaug, Team Coordinator and Sr. Programme Manager, Strategic Engagement and Partnerships, International Centre for Antimicrobial Resistance Solutions

Geneviève Boily-Larouche, Managing Director, AMR Policy Accelerator, Global Strategy Lab

SESSION 5

IMPROVING IPC AND AMR/AMU SURVEILLANCE

SPEAKERS

Tochi Okwor,
IPC Programme Coordinator and Chair, Nigeria AMR Coordination Committee, Nigeria Centre for Disease Control and Prevention

Anuj Sharma,
Technical and Team Focal Point, AMR and IPC, WHO India

Henry Kajumbula,
Chair, AMR Committee, Min. of Health, Uganda

Japheth A. Opintan,
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One Health Secretariat, Zimbabwe

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Benedict Sim Lim Heng,
Infectious Disease Consultant, Sungai Buloh Hospital, Malaysia

S.M.Sabrina Yesmin,
Asst. Director, Directorate General of Drug Administration, Min. of Health and Family Welfare, Bangladesh

Pondpan Suwanthada,
Regional AMR Project Officer, Asia and the Pacific, WOAH

SESSION 6

ENSURING AFFORDABLE ACCESS TO EFFECTIVE ANTIBIOTICS, VACCINES AND DIAGNOSTICS

SPEAKERS

Leena Menghaney, Lawyer, Public Health, Pharmaceuticals and Access, India

Freddy E Kitutu, Senior Lecturer, Health Systems Pharmacy, Makerere University, Uganda

Amina Al Jardani, Sr. Consultant, Central Public Health Laboratories, Center for Disease Control and Prevention, Min. of Health, Oman

Uriel C Cachero, Medical Officer IV, Pharmaceutical Div., Deptt. of Health, Philippines

Hyfa Mohammed Ali, Program Manager-AMR, ReAct Asia Pacific

Peter Mwale, Animal Health Expert, Malawi Veterinary Association

Carol Ruffell, GARDP Network, South Africa

Shaffi Fazaludeen Koya, AMR/IPC Unit, Deptt. of Communicable Diseases, WHO Regional Office for the Eastern Mediterranean, Egypt

T Kujinga, Director, Pan-African Treatment Access Movement, Zimbabwe

Mwapu Ndahi, Federal Ministry of Livestock Development, Nigeria

Alexandra Cameron, Senior Expert, Unit Head A.I. Impact Initiatives and Research Coordination, AMR Division, WHO

Karan Prabhakar, Products Delivery and Management Head, GARDP India

Additional participants

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Aruna Wijesinghe, Chemist / Water Quality Monitoring Laboratory, Ministry of Environment, Sri Lanka

Azreenasyafiqah binti Azmee, Department of Veterinary Services, Malaysia

Chyna Yong Suit-B, AMR One Health and Environment Specialist, FAO RAP

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Jane Lwoyero, Programme Officer (AMR and Food Safety), WOAH Sub-Regional Representation for Eastern Africa

Jorge Raul Matheu Alvarez, Scientist, Impact Initiatives and Research Coordination Unit, AMR Division, WHO

Kayla Strong, Research Lead, Global Strategy Lab, Canada

Manju Soman, AMR Laboratory Specialist, FAO India

Muhammad Nizam Khairul Murad, Research Officer, Veterinary Public Health Laboratory (Pollution Unit), Malaysia

Mustadza bin Shukor, Senior Assistant Director, Department of Agriculture, Malaysia

Myfanwy Hernandez, Quadripartite Joint Secretariat on AMR, WHO

Nuntiya Somjetanakul, Pharmacist, FDA, Ministry of Public Health, Thailand

Pablo Sagredo Martín, One Health Specialist, United Nations Environment Programme

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Tan Teck Leon, Department of Veterinary Services, Malaysia

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Wendmnew Abrie Mekonnen, Biosafety and Invasive Alien Species Regulation Directorate, Ethiopia Environmental Protection Authority, Ethiopia

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Workshop organising team

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- **Neeraj Kumar**, Deputy Programme Manager, Sustainable Food Systems programme, CSE

This report outlines key recommendations from the perspective of Global South to update the Global Action Plan on AMR, based on a three-day international online workshop organised by CSE in September 2025.

It is clear that the realities, challenges and possibilities of the Global South are different. There is a strong need that the updated Global Action Plan on AMR is adequately informed and captures the voice of the Global South, so that the global response to AMR crisis is truly global, effective and sustainable.

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