NEXT IAS

# DAILY EDITORIAL ANALYSIS

TOPIC

## ANTIBIOTIC REGULATIONS IN FOOD PRODUCING ANIMALS AMID GLOBAL AMR CONCERNS

# ANTIBIOTIC REGULATIONS IN FOOD PRODUCING ANIMALS AMID GLOBAL AMR CONCERNS

## Context

- India is stepping up its regulatory framework to address the use of antibiotics in food animal production, reflecting a broader international push to safeguard human health and ensure food safety.

## Use of Antibiotics in Food-Producing Animals

- AMR occurs when pathogens — bacteria, viruses, fungi — develop resistance to drugs that once effectively treated infections.
- It is **driven by the overuse and misuse of antimicrobials** in both human and veterinary medicine.
  - As a result, once-treatable infections are becoming deadly, and the ripple effects are being felt across health systems, food production, and economies.
- According to the **First Global Animal Health Report** released by the **World Organisation for Animal Health (WOAH)**, AMR could cost:
  - $100 trillion in economic losses projected by 2050;
  - Food security of 2 billion people at risk due to declining livestock productivity;
  - Healthcare costs could surge by $159 billion annually;
  - Global GDP losses could reach $1.7 trillion per year;
  - Livestock production losses could affect consumption needs of up to 2 billion people
  - About **30% reduction in antibiotic use** through improved hygiene, vaccination, and biosecurity could boost the global economy by $120 billion by 2050.
- **In Aquaculture & Livestock:**
  - Fluoroquinolones account for 15.8% of antimicrobials used in aquaculture;
  - 20% of WOAH member countries still use antimicrobials as growth promoters;
  - 7% use critically important antibiotics like colistin and enrofloxacin

## Need For Antibiotic Regulations

- **EU's Stringent Antimicrobial Regulations for Imports:** The European Union (EU) has implemented robust regulations to curb antimicrobial use in food animals and ensure food safety for its citizens.
  - Countries **not included in the authorised list, including India,** need to demonstrate compliance with these regulations and submit relevant certifications by **3 September 2026** to continue uninterrupted exports to the EU.
- **Preserving Drug Efficacy:** Without regulation, even last-resort antibiotics like carbapenems and colistin are losing effectiveness.
- **Protecting Public Health:** AMR threatens to reverse decades of medical progress, making routine surgeries and infections potentially fatal.
- **Safeguarding Exports:** Stricter norms are essential to meet international food safety standards, especially for animal-derived products.

## India's Regulatory Changes: Strengthening Domestic Regulations

- Amendment in the **Export (Quality Control and Inspection) Act, 1963,** banning the use of specific antimicrobial drugs in the production of milk, eggs, and honey.
- The **Ministry of Health and Family Welfare (MoHFW)** formally notified the ban covering **15 antibiotics/ antibiotic classes, 18 antivirals, and 1 antiprotozoal.**
- The **Drugs Technical Advisory Board (DTAB)**, under the **Central Drugs Standard Control Organization**, reviewed the EU's list of 37 restricted antimicrobials. It recommended prohibition of **34 out of 37** antimicrobials.
- **Aquaculture and Export Norms:** India's coastal aquaculture guidelines **prohibit five antibiotic classes** and **five specific antibiotics**.
  - It is crucial for maintaining export standards, especially as international buyers increasingly demand antibiotic-free products.

- **Honey & Residue Limits:** The new rules target honey production, setting stricter residue limits for nitrofurans, sulphonamides, and nine other antibiotics.
  - Maximum residue limits (MRPLs) have been doubled from 5 µg/kg to 10 µg/kg.
- **FSSAI's New Rules:** The Food Safety and Standards Authority of India (FSSAI) introduced the amendment to its **Contaminants, Toxins, and Residues** regulations.
  - It prohibits antibiotic use at any stage of producing milk, meat, poultry, eggs, and aquaculture. Banned substances include:
    - **Antibiotic Classes**: glycopeptides, nitrofurans, nitroimidazoles
    - **Antibiotics:** carbadox, chloramphenicol, colistin, streptomycin, sulfamethoxazole.

## Potential Issues & Challenges

- **Enforcement Challenges:** Small-scale farmers often rely on low-cost antibiotics, and veterinary drugs are frequently used without prescriptions.
  - Robust inspection and testing mechanisms are essential to ensure compliance.
- **Fragmented Oversight:** Regulatory responsibilities are split across multiple ministries — health, agriculture, and environment — leading to incoherent policy enforcement.
- **Weak Surveillance:** India lacks a centralized AMR database, making it difficult to track resistance patterns and antibiotic consumption.
- **Environmental Impact:** Pharmaceutical waste containing antibiotic residues is often discharged into water bodies, further spreading resistance.

## Global Implications

- India is one of the largest producers and exporters of animal-derived food products.
- **Implications for Trade and Public Health:**
  - **Public Health**: Curbing AMR through responsible antibiotic use and safeguarding medically important antimicrobials for human use.
  - **Trade Compliance**: Aligning with EU's antimicrobial regulations to sustain and expand access to premium export markets.
- By aligning its standards with international norms, the country aims to:
  - Maintain its global market position;
  - Reduce AMR risks linked to food exports;
  - Promote sustainable livestock farming practices

## Way Forward:

- **One Health Approach:** India's strategy reflects the WHO's 'One Health' framework, which recognizes the interconnectedness of human, animal, and environmental health.
  - By curbing antibiotic misuse in agriculture, India hopes to preserve the efficacy of life-saving drugs for future generations.
- **Strengthen Enforcement:** Implement and monitor prescription-only sales and crack down on illegal antibiotic distribution.
- **Educate Stakeholders:** Launch awareness campaigns for doctors, pharmacists, farmers, and the public.
- **Invest in Surveillance:** Build robust systems to track antibiotic use and resistance trends across sectors.
- **Promote Alternatives:** Encourage vaccination, hygiene, and biosecurity in farming to reduce reliance on antibiotics.

Source: DTE

## Mains Practice Question

**[Q]** Will India's new antibiotic regulations in food animal production help tackle global antimicrobial resistance (AMR), and what challenges might hinder their enforcement?