Concerns on Antibiotic resistance

What is the issue?

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India is yet to regulate antibiotic use and it serves as a cause of concern.

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What are the recent happenings?

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- A recent investigation found that the world's largest veterinary drug-maker, Zoetis, was selling antibiotics as growth promoters to poultry farmers in India.
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- It had stopped the practice in the U.S, since the U.S. banned the use of antibiotics as growth-promoters in early 2017.
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- Even then, India is yet to regulate antibiotic-use in poultry.
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- Technically, the drug-maker was doing nothing illegal and complying with local regulations in both countries.
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- But such reasoning is self-defeating, because antibiotic-resistance does not respect political boundaries.
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What is the status of India?

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- India stands to lose the most from antibiotic resistance is India, given that its burden of infectious disease is among the highest in the world.
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- According to a 2016 PLOS Medicine paper, 416 of every 100,000 Indians die of infectious diseases each year.
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- This is more than twice the U.S.’s crude infectious-disease mortality-rate in the 1940s, when antibiotics were first used there.
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- Thus if these miracle drugs stop working, no one will be hit harder than India.
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- This creates a need for a tighter regulatory regime in the country.
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What are the steps taken so far?

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- There are three major sources of antibiotic resistance –
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1. Overuse of antibiotics by human beings
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2. Overuse in the veterinary sector
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3. Environmental antibiotic contamination due to pharmaceutical and hospital discharge.
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- To tackle the first source, India classified important antibiotics under **Schedule H1** of the **Drugs and Cosmetics Rules** 1945.
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- Under the Rules, drugs specified under Schedule H and Schedule X are required to be sold by retail on the prescription of a Registered Medical Practitioner only.
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- Even then, Schedule H1 drugs are freely available in pharmacies, with state drug-controllers unable to enforce the law widely.
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- To tackle the second source, India’s 2017 **National Action Plan on Antimicrobial Resistance** did talk about restricting antibiotic use as growth promoters.
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- But the lack of progress on this front allows companies to sell last-resort

drugs to farmers over the counter.
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- To tackle the third source, the same national action plan spoke about regulating antibiotics levels in discharge from pharmaceutical firms.
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- For instance, Hyderabad’s pharmaceutical industry has been pumping massive amounts of antibiotics into local lakes, rivers and sewers.
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- This has led to an explosion in resistance genes in these waterbodies.
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- Still, India is yet to introduce standards for antibiotics in waste water, which means antibiotic discharge in sewage is not even being monitored regularly.
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What should be done?

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- Antibiotics lose their efficacy against deadly infectious diseases worldwide.
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- According to a 2013 estimate, around 58,000 newborns die in India each year due to sepsis from resistant bacteria.
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- As the country takes its time to formulate regulations, the toll from antibiotic-misuse is growing at an alarming rate.
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- The issue also seems to be business as usual for governments, private corporations and individuals who have the power to stall a post-antibiotic health complication.
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- Thus there is a need for stricter regulations and regulated monitoring, else India will have no one to blame but itself.
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Source: The Hindu

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