

HEALTH

G7 meet over Antimicrobial Resistance AMR

Recently, Group of Seven (G7) countries met at Berlin to join hands against antimicrobial resistance (AMR).

❖ **Major Highlights of the meeting**

- **Antimicrobial resistance as a bigger threat:** Health ministers from the Group of Seven (G7) highly industrialised countries recently recognised antimicrobial resistance was a bigger threat to low- and middle-income countries (LMIC) even though fighting it was a shared responsibility.
- **Death and effect on GDP:** Nearly 700,000 people die of AMR every year. The toll can rise to as many as 10 million by 2050 and eat up 3.8 per cent of annual global gross domestic product (GDP).
- **The G7 committed to establish new international integrated surveillance systems** and improve existing ones to monitor AMR and antibiotics use among humans, animals and plants and the effect on the environment.
- **This will be in cooperation with** the World Health Organisation, Food and Agriculture Organisation, World Organisation for Animal Health and the United Nations Environment Programme.
- **The aim is to enhance the scientific basis** to inform risk assessments and identify opportunities for mitigation.
- **The group also committed to promote prudent and appropriate use of antimicrobials through 2023** by defining national measurable targets on AMR in line with domestic authorities, including antibiotic usage in human health.

❖ **Antimicrobial Resistance (AMR)**

- According to WHO, **Antimicrobial resistance (AMR)** is the ability of a **microorganism** (like bacteria, viruses, and some parasites) to **stop an antimicrobial** (such as antibiotics, antivirals and antimalarials) from working against it. As a result, standard treatments become ineffective, infections persist and may spread to others.

❖ **Factors Causing AMR in India**

- **Antibiotic Consumption:** Inappropriate consumption of broad-spectrum (last resort) of antibiotics is high because of changing prescription practice in the healthcare system due to the non-availability of a narrow spectrum of antibiotics.
- **Social Factor:** inappropriate antibiotic use among the general public like
 - Self-medication to avoid the financial burden
 - Doctors may perceive that they are compelled to give antibiotics as patients come with a preconceived idea of quick relief.
 - Nexus between doctors and pharmaceutical companies put pressure on doctors and pharmacists to prescribe new antibiotics.
- **Antibiotics Consumption in Food-Animals:** Use of antibiotics as growth promoters in food animals and poultry is a common practice and later it evolves in the food chain.
- **Poor Sanitation:** The large proportion of sewage is disposed of untreated into receiving water bodies, leading to gross contamination of rivers with antibiotic residues, antibiotic-resistant organisms.

❖ **Challenges Posed by AMR**

- Antibiotic resistance is emerging as the **threat to successful treatment of infectious diseases**, organ transplantation, cancer chemotherapy and major surgeries.
- **The issue of AMR causes out of pocket expenditure on health care**, especially on medicines. The use of high order drugs or second-line expensive antibiotics pushing treatment cost high.
- **Neonates and elderly** both are prone to infections and are vulnerable.

❖ **Global Concerns**

- It is a **global health and development** threat.
- WHO has declared that AMR is one of the top **10 global public health threats** facing humanity.
- AMR is already responsible for up to **7,00,000** deaths a year.

- Unless urgent measures are taken to address this threat, we could soon face an unprecedented health and economic crisis of **10 million** annual deaths and costs of up to **\$100 trillion by 2050**.
- Antibiotics are becoming increasingly ineffective as drug resistance spreads globally leading to **more difficult to treat infections and death**.
 - All these effects will be felt globally, but the scenario in the **low- and middle-income countries (LMICs)** of Asia and Africa is even more serious.
 - LMICs have significantly driven **down mortality** using cheap and easily available antimicrobials. In the absence of new therapies, health systems in these countries are at severe risk of being overrun by untreatable infectious diseases.
- ❖ **Global Efforts in this Aspect**
- **Global Action Plan on Antimicrobial Resistance (GAP):** Globally, countries committed to the framework set out in the **Global Action Plan1 (GAP) 2015** on AMR during the 2015 World Health Assembly and committed to the development and implementation of multisectoral national action plans.
- **Tripartite Joint Secretariat on Antimicrobial Resistance:** Tripartite joint secretariat (FAO, OIE and WHO) has been established and is hosted by WHO to drive multi-stakeholder engagement in AMR.
- **Interagency Coordination Group (IACG) on AMR:** It was convened by the Secretary-General of the United Nations after the **UN High-Level Meeting on Antimicrobial Resistance in 2016**.
 - The IACG brought together partners across the UN, international organisations and individuals with expertise across human, animal and plant health, as well as the food, animal feed, trade to formulate a plan for the fight against antimicrobial resistance.
- **World Antimicrobial Awareness Week (WAAW):** WAAW was previously called the **World Antibiotic Awareness Week**. From 2020, it will be called the World Antimicrobial Awareness Week.
 - It is a global campaign that aims to **raise awareness of antimicrobial resistance worldwide**.
- **Global Antimicrobial Resistance and Use Surveillance System (GLASS):** WHO launched it **in 2015** to continue filling knowledge gaps and to inform strategies at all levels.
 - GLASS has been conceived to progressively incorporate data from surveillance of AMR in humans, surveillance of the use of antimicrobial medicines, AMR in the food chain and the environment.
- **Global Antibiotic Research and Development Partnership (GARDP):** A joint initiative of **WHO and the Drugs for Neglected Diseases Initiative (DNDi)**, GARDP encourages research and development through public-private partnerships.
 - By 2025, the partnership aims to develop and deliver five new treatments that target drug-resistant bacteria identified by WHO as posing the greatest threat.
- **Country wise initiatives:** A multi-sectoral \$1 billion **AMR Action Fund** was launched in **2020** to support the development of **new antibiotics**, and the U.K. is trialling a subscription-based model for paying for **new antimicrobials** towards ensuring their commercial viability.
 - **Peru's efforts** on patient education to reduce unnecessary antibiotic prescriptions.
 - **Australian regulatory** reforms to influence prescriber behaviour, and initiatives to increase the use of point-of-care diagnostics, such as the **EU-supported VALUE-Dx programme**.
 - **Denmark's reforms** to prevent the use of antibiotics in livestock have not only led to a significant reduction in the prevalence of resistant microbes in animals, but also improved the efficiency of farming.
- ❖ **India's Initiative**
- To prevent the Over the counter sales of antibiotics, the **central drug standard control organisation (CDSO)** prohibits medical stores from selling 24 key antibiotics without a doctor's prescription.
- **India's Red Line campaign:** Which demands that prescription-only antibiotics be marked with a red line, to discourage the over-the-counter sale of antibiotics– is a step forward.

- **National Health Policy, 2017**, terms antimicrobial resistance as one of the key healthcare issues and prioritises the development of guidelines regarding antibiotic use and check on restricting the growth of antibiotics.
- **The National Action Plan on Antimicrobial Resistance (NAP-AMR) 2017** has assigned coordinated tasks to multiple government agencies involving health, education, environment, and livestock to change prescription practices and consumer behaviour and to scale up infection control and antimicrobial surveillance.
- **FSSAI has set certain guidelines** limiting the antibiotics in food products such as fish and honey.
- ❖ **Way Forward**
- **Infection prevention and control:** It will also aim to prepare the upcoming report on infection prevention and control and present it at the World Health Summit.
- **The health ministers called on WHO to develop guidance on a cost core package of AMR interventions** that all countries, especially LMICs could include to strengthen primary healthcare initiatives.
- **A pandemic preparedness pact supported by the G7 health ministers** focusing on collaborative surveillance and predictable rapid response is also awaited.
- **The ministers also pledged other actions** to mitigate climate change and for healthcare.
- **Though 90 per cent of countries have developed a multi-sectoral national action plan for AMR**, only 20 per cent have identified funding for implementing and monitoring these plans.

PRELIMS

1. Tamagotchi Generation

A new book has predicted that by the third quarter of this century, parents will have the choice of having digital offspring, who will only exist in the digital world of metaverse. This will be the 'Tamagotchi Generation'.

- The name 'Tamagotchi' comes from the digital pet created by the Japanese toy manufacturer Bandai, which was a global rage in the 1990s and early years of this century.
- The Tamagotchi toy is an egg-shaped video game the size of a keychain, which has a screen and buttons.
- Once the pet is activated, an egg appears on the screen, and hatches into a pet for the player to raise. What the pet grows up to be depends on how it has been trained and raised by the player.
- The virtual 'Tamagotchi' children of the future can be built to look like their parents.
- Wearing high-tech gloves while handling the Tamagotchi kid might also reproduce the physical sensations of cuddling, feeding and playing with one's offspring. It is possible to choose how quickly the children grow up.
- The average lifespan of a well-cared-for Tamagotchi is a mere 12 days.
- They will cost next to nothing to bring up, as they will require minimal resources. They could solve the overstated problem of overpopulation.

2. 1972 Stockholm conference

- It was the first world conference to make the environment a major issue.
- The participants adopted a **series of principles for sound management of the environment** including the **Stockholm Declaration and Action Plan for the Human Environment** and several resolutions.
- It marked the start of a **dialogue between industrialized and developing countries** on the link between economic growth, the pollution of the air, water, and oceans and the well-being of people around the world.
- This conference was about the fallout of industrialisation and how to cope and mitigate its harmful impacts.
- One of the major results of the Stockholm conference was the creation of the **United Nations Environment Programme (UNEP)**.
- **Indira Gandhi** was the only head of government other than that of the host country Sweden to attend and speak at the meeting.
- **Significance :**

- **Environment-a basic right:** It was first of its kind to declare that the right to live in a healthy environment as a basic right.
- **Human Action:** It recognised that humans are responsible for almost all of the environmental destruction. Humans have altered the human environment also.
- **On developed and underdeveloped:** The declaration discusses in detail the role of underdeveloped nations in environmental problems and urges them to reduce their negative impact on the environment. The industrial countries are not free from problems, but their problems relate to industrialization and technological development.
- **For governments:** Governments were directed to control their internal actions by enacting and enforcing environmental laws and coordinating with other nations and international agencies to mitigate the damage caused by pollution.
- **Lead for the world:** This convention led UNEP to coordinate global action for the protection and preservation of the environment in December 1972. The Stockholm convention paved the way for other international conventions on the preservation of the environment such as **the Convention on International Trade in Endangered Species of Wild Flora and Fauna, 1973.**
- **In India:** Parliament passed the following acts to give effect to the Stockholm convention:
 - The Air (Prevention and Control of Pollution) Act, 1981,
 - The Water (Prevention and Control of Pollution) Act, 1974,
 - The Forest Conservation Act, 1980

3. **Leadership for Industry Transition (LeadIT)**

- It was launched by the governments of Sweden and India at the UN Climate Action Summit in September 2019 and is supported by the **World Economic Forum.**
- It lays **specific focus on hard to abate sectors** that are key stakeholders in the **global climate action and require specific interventions.**
- Japan and South Africa, the latest members of the initiative were welcomed. This extends the total membership of LeadIT to 37 including countries and companies together.
- It gathers countries and companies that are committed to action to achieve the Paris Agreement.
- LeadIT members subscribe to the notion that energy-intensive industry can and must progress on low-carbon pathways, aiming to achieve net-zero carbon emissions by 2050.

Functions

- It provides an arena for public-private collaboration, and for sectoral and cross-sectoral learning for example when it comes to innovation opportunities and new technologies.
- It carries out analysis to improve the collective understanding of the opportunities and challenges in industry transitions. It looks at global examples of industry transitions, as well as at key policy and industry levers to facilitate and manage transitions.
- It also supports governments and industries to co-produce stakeholder-led pathways to low carbon industry transformation.

ANSWER WRITING

Q. The crisis of Kashmir is embedded in crisis of the development in Kashmir. Comment (150 Words)
Introduction

- Kashmir crisis has been one of the most contentious and divisive issues within and outside India. The reason for this crisis is attributed to various factors including- the lack of development in the region which causes popular disgruntlement with the Government, radicalization, stone pelting and secessionist demands.

Relation between Development and Problems of Kashmir:

- A look at recent data from the fourth round of the National Family Health Survey (NFHS), which was conducted in 2015-16, suggests that Jammu and Kashmir fares better on development indicators when compared with all-India averages, or with insurgency-affected states such as Assam, Nagaland, Manipur and Chhattisgarh.
- Kashmir fares better than many states on socio-economic indicators, but this could be largely attributed to the disproportionate spending by the central government. Between 2000-2016 Kashmir received 10 percent of the total funds given out to states by the centre even though it only represents 1 percent of the country's population.

- However, the role of socio-economic factors can not be dismissed altogether, in permeating the crisis in Kashmir. According to the 2011 census, the share of 0-14 year old population was slightly higher in Jammu and Kashmir (34%) than all India (31%). However students suffer from lack of access to quality education due to curfews, protests and targeting of schools by the terrorists. Youths are indoctrinated and misguided towards stone pelting and other subversive activities.
- Apart from this, Kashmir also has an employment generation issue, which is again linked to low investment in the economy. According to the 2011 census, Jammu and Kashmir had a much smaller share of men workers (who are employed for more than six months in a year) in comparison to the rest of India and other conflict-ridden states.
- The 2015 Kashmir Mental Health Survey conducted by the international humanitarian organisation, Doctors Without Borders, found that 45% of adults in the Kashmir valley display major symptoms of mental distress, with about one in five adults, or 19% of the adult population, displaying major symptoms of post-traumatic stress disorder (PTSD). The survey put the prevalence of depression in adults at 41%. In contrast, the National Mental Health Survey of India 2015-16 puts the weighted prevalence of depression at the all-India level in single digits.
- Undoubtedly, Jammu and Kashmir lags behind others in attracting investment, creating jobs, becoming a manufacturing or services hub, and ensuring the rights to its citizens. All these have cumulatively affected the prevalent social conditions and shaped Kashmiri perception towards the State machinery.
- Yet, a conflict such as that in Kashmir can rarely be pinned down to just one cause. Years of armed conflict, infiltration aided by Pakistan, and the heavily militarized environment has taken an emotional toll on the state's population.

Conclusion

For the permanent cessation of this conflict, India needs to move forward with a humanitarian approach, creating better educational and economic prospects for local youth along with dealing sternly with cross border terrorism.

QUIZ

1. Recently Health Ministry launched a campaign "Har Ghar Dastak 2.0" is related to which of the following?
 - a) Rubella
 - b) **Covid – 19**
 - c) Polio
 - d) Measles
2. World Bicycle Day observed on which of the following date?
 - a) **3rd June**
 - b) 4th June
 - c) 5th June
 - d) 2nd June
3. A renowned personality Pandit Bhajan Sopori passes away is related to which of the following field?
 - a) **Arts**
 - b) Sports
 - c) Science
 - d) Social reformer
4. Consider the following statements with regards to Anti-Microbial Resistance (AMR).
 1. WHO does not defined AMR
 2. WHO has declared that AMR is one of the top 10 global public health threats facing humanity
 3. Antimicrobial resistance is mainly caused by the overuse of antimicrobials.
 Select the incorrect statement using the codes given below
 - a) **1 only**
 - b) 2 only
 - c) 1 and 3 only

- d) 2 and 3 only
5. To give effect to Stockholm Conference 1972, which of the following Act are passed by Indian Parliament?
1. The Air (Prevention and Control of Pollution) Act, 1981,
 2. The Water (Prevention and Control of Pollution) Act, 1974,
 3. The Forest Conservation Act, 1980
- Choose the correct answer using the codes given below
- a) 1 and 2 only
 - b) 2 and 3 only
 - c) 1 and 3 only
 - d) All of the above**
6. Consider the following statements
1. Any decision of the GST Council requires a three-fourth majority or a minimum of 25 votes
 2. Under Article 279A, the GST Council has to make recommendations on various topics including the tax rate and exemptions.
- Which of the above statement/s is /are incorrect?
- a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2**
7. Consider the following statements:
1. The subsidies given to the farmer, calculated as the excess of MSP over its international price, is known as External Reference Price (ERP).
 2. Developing countries are required to keep aggregate measurement of support (AMS) below 10 percent of the value of agriculture production
- Which of the above statement/s is/are correct?
- a) 1 only
 - b) 2 only
 - c) Both 1 and 2**
 - d) Neither 1 nor 2
8. Which of the following are incorrectly matched
1. Windrush Generation - British Commonwealth nations.
 2. Tamagotchi Generation - digital offspring.
- Select the correct answer using the codes given below
- a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2**
9. Which of the following pollutants are covered under National Air Quality Index.
- a) PM10
 - b) PM2.5
 - c) Pb
 - d) All of the above**
10. Consider the following statements about Rajiv Gandhi National Institute Of Youth Development (RGNIYD).
1. It is a statutory institution
 2. It is an Institute of National Importance
 3. It has been conferred 'deemed to be University' under 'De-novo' category.
- Choose the incorrect statement using the codes given below
- (a) 1 and 2 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) None of the above**