

NATIONAL SOCIAL ISSUES- WOMEN, POPULATION, URBANISATION, EMPOWERMENT ETC**Preventing violence: on protection to doctors**

A law to protect doctors is good, and a health-care upgrade is essential.

Background: The attack on a junior doctor on June 10 over the death of a patient had sparked the agitation, which spread to other parts of the country when it appeared that the State government was reluctant to negotiate with the striking doctors. Now that Ms. Banerjee has reached out to young doctors and conceded that their demands are genuine, the government, in West Bengal and elsewhere, must focus on addressing the deficiencies afflicting the health-care system as a whole.

Reasons for violence against doctors

- Reprisal attacks on doctors by agitated relatives of patients who die during treatment are known to happen.
- Such violence is invariably the result of systemic problems that adversely affect optimal attention to patients, such as infrastructural and manpower constraints.
- It is apparent that doctors work in stressful environments, sometimes under political pressure with regard to admissions.

Provisions in place

- Several States have enacted laws to protect doctors and other health-care personnel from violence.
- Last week, Union Health Minister Harsh Vardhan wrote to State governments highlighting the need for stringent action against anyone who assaults doctors.
- He asked States that do not have a law to protect doctors against violence to enact one, and circulated a 2017 draft of a law that envisaged imprisonment besides recovery of compensation from perpetrators for loss or damage to property.

Effectiveness of such a law

- Ironically, West Bengal, the epicentre of a strike that involved nearly the entire medical fraternity across the country, has such a law too.
- Like the law in most other States, the West Bengal Act provides for a three-year prison term and a fine, which could go up to Rs. 50,000, to anyone indulging in violence against any “medicare service person”, which covers doctors, nurses, medical and nursing students and paramedical staff.
- The offence is cognisable and non-bailable.
- It also provides for recovery of compensation for the loss.
- It is clear that having this law did not prevent the incident that sparked the latest agitation.
- There are no figures available on how many times the medical service person protection law has been invoked.

Conclusion: In any case, causing simple or grievous injuries to anyone is a criminal offence under the Indian Penal Code. Treating the issue as a law and order problem is just one way. The real solution may lie in improving health infrastructure, counselling patients about possible adverse treatment outcomes, and providing basic security in medical institutions.

World Population Prospects Report 2019

According to ‘The World Population Prospects 2019’, by 2027, India is projected to surpass China as the world’s most populous country.

Some of the key takeaways are as follows:**Global population on rise**

- The global population is projected to increase by another 2 billion people by 2050, from 7.7 billion in 2019 to 9.7 billion thirty years down the line.
- By the end of the century, the world population is set to peak at a level of about 11 billion.

Indian Case

- India is expected to remain the world's most populous country with nearly 1.5 billion inhabitants, followed by China at 1.1 billion, Nigeria with 733 million, the United States with 434 million, and Pakistan with 403 million.
- In 2019, India has an estimated population of 1.37 billion and China 1.43 billion and by 2027, India's population is projected to surpass China's.
- India is also expected to add 273 million people by 2050 and will remain the most populated until the end of the century.

More in 65+ bracket

- In India, children under age five still outnumber the over-65 population, who are projected to overtake the under-five group between 2025 and 2030.
- By 2050, persons over age 65 will make up about one-seventh of India's population. By then, the 15-24 group in India (13.8%), too, will outnumber the over-65 group (13.6%).
- Children under age five are projected to constitute less than 6% of India's population in 2050, as compared to 7% globally.

INTERNATIONAL AFFAIRS- BILATERAL, GROUPINGS, ORGANISATIONS

Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP):

Indian Coast Guard (ICG) will be co-hosting 12th Capacity Building workshop with Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) Information Sharing Centre (ISC).

About ReCAAP:

- The ReCAAP is the first regional Government-to-Government agreement to deal with piracy and armed robbery at sea in Asia.
- Presently 20 countries are members of ReCAAP. India played an active role in the setting up and functioning of ReCAAPISC along with Japan and Singapore.
- Union Government has designated ICG as the focal point within India for ReCAAP.
- Information sharing, capacity building and mutual legal assistance are the three pillars of co-operation under the ReCAAP agreement.
- An ISC has been established at Singapore to collate and disseminate the information among the contracting parties and the maritime community.

AWaRe- a WHO tool for safer use of antibiotics

WHO launches tool for safer use of antibiotics, curb resistance- AWaRe.

About AWaRe: It is an online tool aimed at guiding policy-makers and health workers to use antibiotics safely and more effectively. The tool, known as 'AWaRe', classifies antibiotics into three groups:

- Access — antibiotics used to treat the most common and serious infections.
- Watch — antibiotics available at all times in the healthcare system.
- Reserve — antibiotics to be used sparingly or preserved and used only as a last resort.

Concerns:

- Antibiotic resistance is already one of the biggest health risks and is estimated to kill 50 million by 2050 worldwide.
- The threat continues to escalate globally because more than 50 per cent of antibiotics in many countries are used inappropriately such as for treatment of viruses when they only treat bacterial infections or use of the wrong (broader spectrum) antibiotic.

- Besides, reduced access to effective and appropriate antibiotics in many low- and middle-income countries contributes to childhood deaths and lack of funding and implementation of national plans to tackle antimicrobial resistance.

Factors underlying the problem: The factors underlying the problem of suboptimal antibiotic use are complex, but include, among others, lack of knowledge and awareness of the problem by prescribers and the public, diagnostic uncertainty due to limitations of actual diagnostic tests and insufficient diagnostic capacities, lack of access to evidence-based treatment guidelines taking into account local epidemiology, lack of access to data reflecting the quality of antibiotic prescribing and use, preference for dispensing large spectrum antibiotics even when narrow spectrum alternatives are available).

Need of the hour:

- With the emergence of infections that are untreatable by all classes of antibiotics, antimicrobial resistance has become “an invisible pandemic”.
- In the absence of development of new drugs, “we must safeguard these precious last-line antibiotics to ensure we can still treat and prevent serious infections”.

ENVIRONMENT- CONSERVATION, BIO-DIVERSITY AND ISSUES

India unlikely to meet carbon sink commitment

India’s Intended Nationally Determined Contribution (INDC) of creating an additional carbon sink of 2.5-3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by 2030, is unlikely to materialize.

State of Afforestation in India

- The current rate of afforestation — 35 million tonnes per year carbon dioxide equivalent — is lower than what is needed to achieve the target.
- At this rate, there will be a shortfall from the target pledged.
- Various afforestation programmes like the Green India Mission (GIM) and National Afforestation Programme (NAP) are under-funded, the Parliamentary Standing Committee on S&T.
- There had been a decline in the progress area brought under afforestation as part of the NAP — from 80,583 hectares in 2013-14 to just 35,986 hectares in 2015-16.
- The report also found that there had been no recent studies to know the efficacy of these programmes.

What needs to be done?

- The Ministry should undertake a study to assess the impact of National Afforestation Programme and Green India Mission in improving the quality of degraded forests.
- This should be done so that their actual impact on the forest cover is known and further strategies in this regard could be drawn accordingly.
- To increase afforestation and reduce land degradation, there was a need to improve the quality of the forest under the categories ‘Open Forests’ and ‘Shrubs’.

SCIENCE AND TECHNOLOGY- EVERYDAY SCIENCE, SPACE, NUCLEAR, DEFENCE ETC

Anthrax

DRDO, JNU scientists develop more potent Anthrax vaccine. Claim new vaccine superior than existing ones as it can generate immune response to anthrax toxin as well as spores.

About anthrax:

- Anthrax is a disease caused by *Bacillus anthracis*, a germ that lives in soil.

- It affects animals such as cattle, sheep, and goats more often than people. People can get anthrax from contact with infected animals, wool, meat, or hides. It can cause three forms of disease in people.

Spread: Anthrax does not spread directly from one infected animal or person to another; it is spread by spores. These spores can be transported by clothing or shoes.

Symptoms & Infection:

- In most cases, symptoms develop within seven days of exposure to the bacteria. The one exception is inhalation anthrax, which may take weeks after exposure before symptoms appear.
- Respiratory infection in humans initially presents with cold or flu-like symptoms for several days, followed by pneumonia and severe (and often fatal) respiratory collapse.
- Gastrointestinal (GI) infection in humans is most often caused by consuming anthrax-infected meat and is characterized by serious GI difficulty, vomiting of blood, severe diarrhea, acute inflammation of the intestinal tract, and loss of appetite.
- Cutaneous anthrax, also known as Hide porter's disease, is the cutaneous (on the skin) manifestation of anthrax infection in humans. It presents as a boil-like skin lesion that eventually forms an ulcer with a black center (eschar).

Exposure:

- Occupational exposure to infected animals or their products (such as skin, wool, and meat) is the usual pathway of exposure for humans. Workers who are exposed to dead animals and animal products are at the highest risk, especially in countries where anthrax is more common.
- It does not usually spread from an infected human to a noninfected human. But, if the disease is fatal to the person's body, its mass of anthrax bacilli becomes a potential source of infection to others and special precautions should be used to prevent further contamination. Inhalational anthrax, if left untreated until obvious symptoms occur, may be fatal.
- Anthrax can be contracted in laboratory accidents or by handling infected animals or their wool or hides.

Treatment:

- The standard treatment for anthrax is a 60-day course of an antibiotic. Treatment is most effective when started as soon as possible.
- Although some cases of anthrax respond to antibiotics, advanced inhalation anthrax may not. By the later stages of the disease, the bacteria have often produced more toxins than drugs can eliminate.

Use in Bioterrorism: Anthrax has been used in biological warfare by agents and by terrorists to intentionally infect. It was spread in US through a mail. It killed 5 people and made 22 sick.

QUOTE OF THE DAY

Do not compare your insides with someone else's outsides.

DAILY ANSWER WRITING PRACTICE

Qns: What is the importance of the Compensatory Afforestation Fund Act, 2016? What are challenges to it?

Ans: The importance of the Compensatory Afforestation Fund Act, 2016 are:

- Ensures the utilization of approximately Rs 50,000 crore rupees available with the Ad-hoc CAMPA for afforestation, regeneration of forest, infrastructure development and protection of wild life.
- Impact generated by the diversion of forests will get reduced,
- Backward tribal areas would get employment opportunities, and
- Increases green cover and creation of productive assets.

Challenges: The challenges of Compensatory Afforestation Fund Act, 2016 are:

Forest bureaucracy: No safeguards against the forest bureaucracy implementing compensatory-plantations on already dense forests.

Availability of non-forest land for Afforestation: Difficulty is faced especially in smaller states and heavily forested states like Chhattisgarh to find non-forest lands for afforestation.

Diversion of Fund: The diversion of funds for other activities would take away the focus from the prime objective of compensating for the forest cover lost to developmental or industrial development.

Provisions of Forest Rights Act, 2006 being ignored: Consultations, an important guideline to be followed, are not stipulated for all afforestation projects nor involve the affected gram sabhas.

Against democratic devolution: Provisions of the act are against the principles of democratic devolution as laid down in the 73rd and 74th constitutional amendments.

Way ahead:

- Enable independent audit of all connected programmes.
- Implementation of the projects should be through the Compensatory Afforestation Fund to ensure effective and proper utilization of funds.
- Address concerns over its discordances with Forest Rights Act (FRA), lack of livelihood generation and eviction and poor participation of local communities.