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Sarpanches as district collectors

Recognising the pivotal role of decentralised governance system during the COVID19 pandemic, the Odisha government has delegated the powers of a district collector to sarpanches of the state's 6,798 gram panchayats for their jurisdiction.

Source of power -

The power has been delegated under Section 51 of the Disaster Management Act, 2005 and Epidemic Diseases Act 1897 read with Odisha COVID19 Regulations, 2020.

What else is being done?

The state government has allotted Rs 5 lakh to each gram panchayat to carry out the processes.

Monsoon Calendar 2020

The Indian Meteorological Department has changed the dates of normal onset of monsoon across several parts of India, mainly for central and northwest India.

What has changed?

- While the existing dates were based on rainfall records taken during 1901-1940, IMD now depends on data collected during 1961-2019 for forecasting the new monsoon onset dates and on data during 1971-2019 for the withdrawal dates.
- While monsoon onset date remains unchanged, on June 1 in Kerala, it has been delayed by three to seven days in Maharashtra, Gujarat, Madhya Pradesh, Chhattisgarh, Telangana, Andhra Pradesh, Odisha, Jharkhand, Bihar and parts of Uttar Pradesh.
- Over extreme northwest India, monsoon arrival data has been advanced to July 8 from July 15. There are, however, appreciable changes in the monsoon withdrawal dates.
- Monsoon will now withdraw from northwest India 14 days later. Yet, the final withdrawal date would remain unchanged, on October 15.

Why?

- The major trigger for the revision of dates were the changes in the monsoon behaviour observed by IMD during the past many years, especially due to global warming. For instance, it has been observed for quite some time now that the movement of monsoon winds, after the initial onset over southern India, becomes sluggish over central India.
- IMD in 2018 formed a committee to assess such observations, check if they were statistically significant and suggest changes for the onset and withdrawal of monsoon dates over India.

Antimicrobial resistance

Chicken, considered a staple on fast-food menus, are routinely administered antibiotics throughout their short lifecycle of 35-42 days, even in the absence of any clinical sign of infection.

Fast-food industry, which is a major buyer of chicken meat in India, can be a game-changer in this fight against anti-microbial resistance (AMR).

What should be done?

- The fast-food industry in India appears to be reluctant to come out with their commitments and time frames for addressing the issue of antibiotic misuse in the supply chain despite the fact the country's National Action Plan for AMR, released in April 2017, highlights the role of the food industry in containing AMR. Delhi, in its action plan to fight AMR, has particularly called on select fast-food industry players to commit to eliminate antibiotic misuse in their supply chain.
- It is time that the industry issues time-bound public commitments specific to India to eliminate non-therapeutic use of all medically important antibiotics, and use of HPCIA's for treatment in their supply chains.
- It should aim to achieve these commitments like their international counterparts and share progress periodically in the public domain along with third-party supply chain audits and laboratory testing reports on antibiotic residues and resistant bacteria. The Food Safety and Standards Authority of India which now provides tolerance limits for antibiotics in food, including chicken meat, must also monitor these products.

Ageing dams of India - Water crisis

India has 5,264 large dams, and hundreds and thousands of medium and minor dams—a majority of them provide water for irrigation through a maze of canal network. About 64 large dams are 120 years old, 300 large dams are between 70 and 120 years old, and cumulatively, about 600 large dams are at least 55 years old. The scenario will become alarming in 2030, when about 2,000 large dams will be 50-120 years old, as the envisaged benefits from these dams will reduce substantially.

What is the cause of worry?

- The reason is, as a dam ages, the live storage capacity designed for reservoirs will not remain static. It changes with time. The live storage of Krishnarajasagar dam built in 1931 cannot remain the same in 2020. This is because reservoirs get silted over time.
- Moreover, dams are an assembly of different components much like an automobile. There is spillway, the non-overflow section, stilling basin, piers, training wall (built to confine or guide the flow of water), gates and the core. These components were designed to withstand different loading combinations over time, and were built using different standards prevailing at the time.
- Dams are subjected to differential settlement of foundations, erosion of rip-rap (protection of embankments) clogging of filters, reaction between water and concrete, and, this leads to the deterioration in the functional life and increases the

leakage of water or seepage from the reservoir. Such data of leakage of water from reservoirs has either never been estimated in India, or even if measured, remains shrouded in mystery.

- The extent of sedimentation of India's 5,264 large dams has not been officially estimated. So, the total loss of live storage from all dams, in particular large dams, remains unknown outside the agencies maintaining the dams.

What should be done?

- First, the loss of live storage from every dam in the country has to be estimated and placed in the public domain. Alternative solutions such as creation of water harvesting structures, check dams and groundwater recharge structures have to be built within the command area, and outside, to compensate the loss of live storage from ageing dams.
- Second, defunct dams should be dismantled and research activities should begin to restore the flow path of the river and streams. Just like an obsolete vehicle or an electronic device is replaced with a new one, research should facilitate building alternate dams across the same site or in the vicinity of the old dam site. This will enhance the utilisable surface water capacity as well as the ultimate storage capacity. These new dams can restore the lost irrigation potential to some extent. In the US, about 1,000 defunct dams have been knocked down. However in India, it is a stigma to even think of removal of dams as the entrenched engineer-contractor-politician nexus continues to present the lopsided story of the outdated benefits of dams, thus misleading governments and stakeholders.
- It is time governments and stakeholders overhauled water agencies and transform them into multi-disciplinary agencies to get the rational perspective of dams. Otherwise, vested interests will always say that every water crisis is due to drought, and not due to the ageing of dams.

Opportunity for India

Bulk of the active pharmaceutical ingredients (APIs) required by the pharma industry across the world is produced in China and India. The COVID-19 pandemic has exposed the risks of global supply chains being focused on a single country, which currently is China. As the world seeks to reduce reliance on China, India is likely to become the preferred country for sourcing APIs.

Compulsory Licensing trends -

- Many countries have declared intention to resort to Compulsory Licenses (CL), if required, for ensuring the adequate supply of drugs for treating COVID-19. (Compulsory licensing is when a government allows someone else to produce a patented product or process without the consent of the patent owner or plans to use the patent-protected invention itself, according to the World Trade Organization.)
- The Indian Patent Act, 1970, has a provision that enables export under CL. Exports under CL, if countries resort to it, would be an immediate opportunity for

Indian pharmaceutical industry. But India's gains from the opportunity in the API business would depend on how swiftly its policymakers respond to it.

What India is doing?

- In order to eliminate the dependence on China for APIs and intermediates and to promote their domestic production, the Union Cabinet, on March 21, decided to launch a scheme at a cost of Rs 10,000 crore.
- Under the initiative, Rs 3,000 crore will be used to create common facilities in three API Parks, which are expected to be established by the private sector, while Rs 6,940 crore will be used for the Production Linked Incentive (PLI) scheme over a period of eight years.

What needs to be done?

- The average size of SEZs in India is about 1 per cent of the average size of SEZs in China. They use technologies that rely on cheaper raw materials like cauliflower for fermentation whereas our firms use glucose and lactose which are much costlier.
- Moreover, it may take about eight years to set up API Parks and begin commercial production. By then, the Chinese are likely to have come up with even better technologies that further push the prices down.
- As we have a structural disadvantage in terms of the size of SEZs, we need to focus on cost-effective and greener technologies. This technology component has been missing in India's recent initiatives to boost domestic production of APIs and intermediates.
- Development of appropriate technologies has to be done in a mission mode and the large network of Council of Scientific and Industrial Research laboratories and public sector universities can be used.
- The business insecurity will be overcome if API Parks with common utilities are established by the government and then enterprises are invited to establish their production units there. This will considerably reduce the cost for producers and partly offset the disadvantage India has in terms of size of operations as compared to China.

Labour Laws

As India prepares to lift the lockdown, state governments are in a rush to dilute laws meant to safeguard labourers.

What is being done?

- The dilutions include exemption from labour laws for up to three years to making 12-hour shifts legal (done by Uttar Pradesh government).
- The sentiment is also shared by the Union Ministry of Labour and Employment that has assured the industry relaxations in labour laws.
- Over the next few days, six more state governments - Uttar Pradesh, Gujarat, Assam, Rajasthan, Punjab and Himachal Pradesh - followed suit.

Madhya Pradesh example -

- In Madhya Pradesh, establishments now have to abide by only a few provisions of the Factories Act, 1948, such as safety and payments.
- The state also assures that investors will get government nod in a single day, which could result in clearances without proper background checks.
- It has also repealed the Madhya Pradesh Industrial Relations Act 1960 that deals with arbitration between employees and employers and extended a 1,000-day exemption from the Industrial Disputes Act, 1947 to ensure that “establishments will be able to keep the labourers in service as per their convenience”.
- New factories also do not have to pay Rs 80 per labourer per year to the Madhya Pradesh Labour Welfare Board for the next 1,000 days.
- It adds that establishments employing less than 50 workers can be inspected only after the permission of the Labour Commissioner.

Other states -

- Uttar Pradesh has exempted all industries from labour laws for the next three years.
- In Gujarat, inventors who can promise their project will run for over 1,200 days, will enjoy a three-year hiatus from labour laws as long as they ensure minimum wages, observe safety laws and provide compensation in case of a mishap. The state government has said the relaxation will help attract foreign investment from the US and Japan who are fed up with China.
- Rajasthan has not only raised the working hours from eight hours a day to 12 hours a day, but also amended the Industrial Disputes Act to increase the threshold for layoffs and retrenchment to 300 from 100. Companies also need to recognise the trade union only if 30 per cent workers are its members.

Electricity Amendment Act

The Union Ministry of Power has hurriedly started the process of amending the Electricity Act, 2003. It has floated a draft Electricity (Amendment) Bill, 2020, inviting suggestions from stakeholders.

Key proposals -

The draft makes three key proposals: abandon the existing subsidy and cross-subsidy model, allow private parties in power distribution as sub-licensee, and create Electricity Contract Enforcement Authority (ECEA).

Provisions in the Draft -

- As per the existing subsidy and cross-subsidy model, the state government charges more from rich power consumers like industrial units and provides subsidy to weaker sections. The draft proposes to fix one power tariff for all. The state government may later pass on the subsidy as Direct Benefit Transfer to the beneficiaries. It would be difficult for poor sections to pay electricity bills in advance and there could be delays in transferring the subsidies to the beneficiary account.
- The draft introduces the concept of “distribution sub-licensee”. This gives discoms the power to authorise another company to distribute electricity in the

state without a separate licence. Similarly, the existing “distribution franchisee” can distribute electricity without separate approval from the authorities. Experts say this is a gradual movement towards privatisation of distribution.

- While a central committee would appoint even the state regulators, the creation of ECEA can disempower not only the state regulatory commissions but people engaged in legal battles as well. The power to settle disputes between the generation and distribution companies would vest in ECEA, which would have the status of a civil court. It would be the sole authority to adjudicate conflicts over power purchase and sale contracts. Its decisions can be challenged only at the appellate tribunal and, finally, at the Supreme Court. It means that the aggrieved parties would have no right to appeal to the High Court anymore.

Warning Signal

IMD, the country’s only public meteorological organisation does well in predicting large-scale weather phenomena like high temperatures and heat waves. But it fails to predict smaller incidents like storms that bring rain, hail, dust and lightning. Despite India having one of the world’s best agrometeorological advisory systems, the farmers are left in the lurch.

Why does it fail to warn farmers?

- The main reason for failure of IMD is the poor density of observatories. The government contends that the country needs 40,000 Automatic Weather Stations (AWSS) every 10 kms in the plains and every 5 kms in the hills. India has only a third of this.
- There is also a drastic difference in the scale of weather data collection infrastructure across the states. Kerala, for instance, has one AWS every 87 sq km but Chhattisgarh has one every 2,703 sq km.
- IMD also does not provide micro-level advisories. Its default scale for forecasts is the district level. This is insufficient with each district spanning hundreds to thousands of sq km, and significant weather variations found within short distances. No standard protocol for AWSS on data collection worsens the situation. Weather stations are poorly managed and don’t have quality control. There is no common platform for data collection. The problem escalates due to poor inspection.
- The Agrometeorological advisories should ideally provide weather information and add value to it through advice on agricultural best practices. Some advices and outdated and recommendations are general in character which are not suitable to current production and agriculture techniques.

Way forward -

- Changing climate has the potential to invalidate centuries of agricultural knowledge accumulated in rural India. A modern agromet system is key to building resilience against this challenge.
- Focus now has to be on the integration and coordination of technology and human resources, across fields, levels of government, and the private and public sectors.

Roots of water scarcity

Nature-based solutions like planting of trees and restoration of forests are often touted as the panacea for water conservation. This is because forest watersheds - lands covered by forests which drain all the water flowing through them into waterbodies like rivers or lakes - provide a whopping 75 percent of the world's accessible freshwater resources.

But many organisations implementing this crucial nature-based solution have been unable to differentiate between restoration of forests and planting trees.

Issue in India -

- In India, afforestation was one of the interventions of the Union Government's Jal Shakti Abhiyan, launched in July 2019, to make the country's most water-stressed districts water secure.
- Under this programme, district administrations were encouraged to undertake planting of trees in a big way.
- It must be noted that simply planting trees will not conserve water. In fact, trees can suck up water and release it through evapotranspiration—water lost by trees to the atmosphere through tiny openings on the underside of their leaves known as stomata.
- According to Wildlife Institute of India, when sparsely vegetated land is converted into forest, there is a reduction in blue water (available for human use) and increase in green water (part of water available for plant use). Trees can consume more water than other shorter vegetation.

What should be done?

- First thing that should be noted is that of scale. In general, forest expansion of 2 sq km or more can increase the possibility of rainfall. Trees transport water to the air, and water vapour moves to another location, which can be far from the afforested area.
- The second aspect is what kind of tree species must be planted for water conservation. Invariably, fast growing broad leaved species such as eucalyptus and poplar consume more water as compared to needle-leaved species, such as casuarina and pines.
- The third aspect is that of site characteristics. Areas with varying ecology, soil and patterns of precipitation have different responses to large-scale plantations. Natural ecosystems, especially evergreen systems found along the Western Ghats, are much better at conserving water as they have complex root systems, which can hold large amounts of soil together and that can, in turn, hold large quantities of water in place. They also slow down the flow of water streams through them which helps the soil absorb and hold more water.