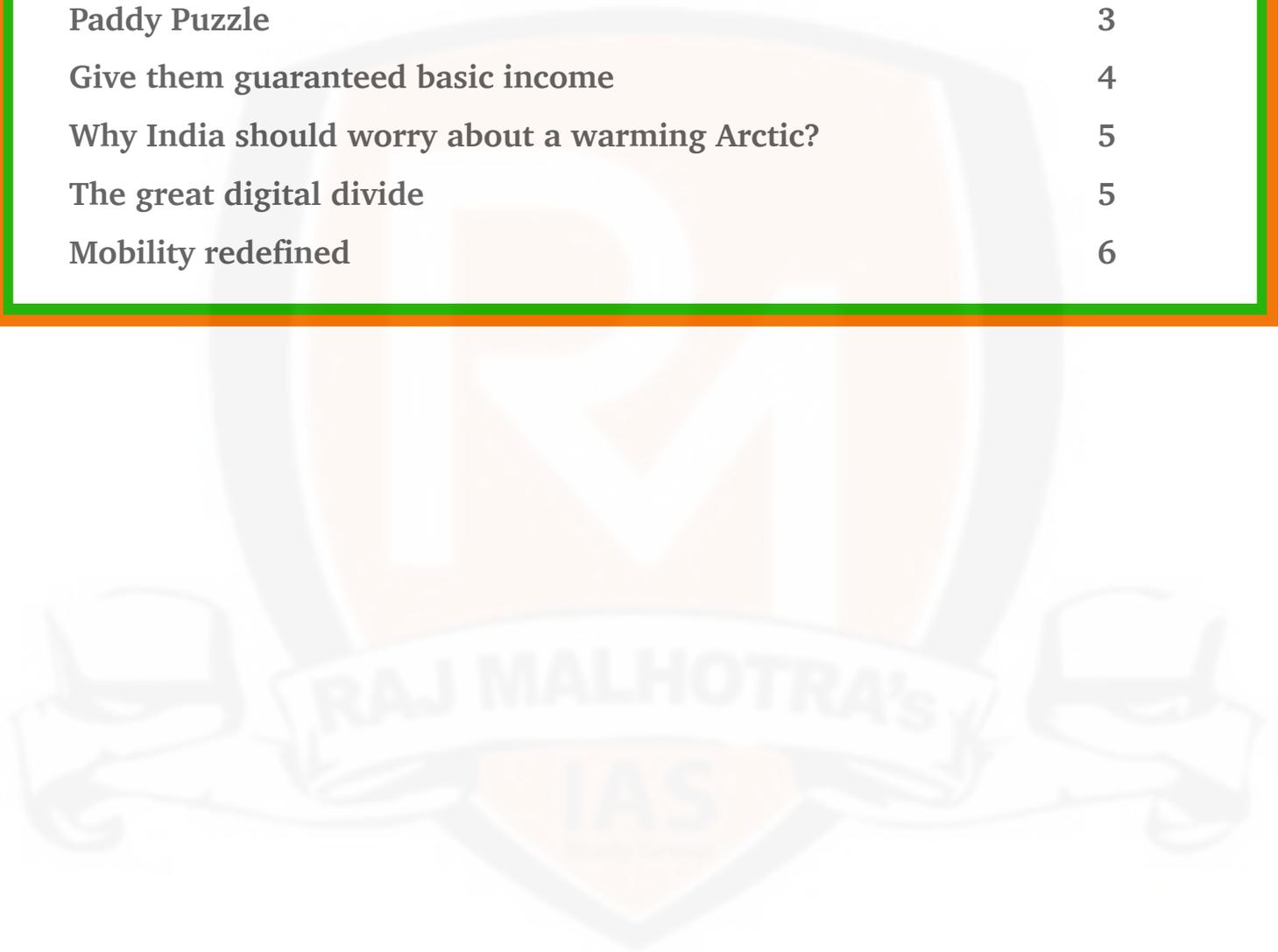


RAJ MALHOTRA'S IAS ACADEMY, CHANDIGARH

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Good rains bring bad news

This year, the Southwest monsoon season in India appears to be progressing as per schedule after its onset over Kerala on June 1.

However, several southern states have received significantly deficit rainfall, while central states have received excess or large excess rainfall. One reason for the difference could be the occurrence of cyclone Nisarga which formed in the Arabian Sea around monsoon onset and pulled the moisture inland into central India.

Global warming -

- According to the first climate change assessment report for India published by the Union Ministry of Earth Sciences on June 17, this is clear sign of a warming world. The report, Assessment of Climate Change over the Indian Region, says the country's average temperature has risen by 0.7°C since 1901.
- It will increase to 4.4°C by end of the 21st century, relative to the recent past (1976-2005 average). Even the summer monsoon rainfall has decreased over the country since 1950, particularly over the Indo-Gangetic plains and the Western Ghats.
- However, the frequency of localised heavy rain occurrences has significantly increased over central India, says the report, adding that extreme rains are concentrated around urban India.
- Climate models also suggest increase in the frequency of extreme rainfall events all over India and delayed monsoon retreat dates.

Impact - Locust attacks -

- Such a pattern can throw agricultural activities into disarray and make locust attacks a perennial problem. Locusts usually arrive at the scheduled desert area during the summer monsoon season for breeding and leave around October-November. This year, they arrived earlier and have since then, spread eastwards to regions that received ample rainfall between March and May.
- With monsoon rains sweeping across the newly invaded states, entomologists fear some swarms may not return to their traditional breeding area and lay eggs wherever they find sandy or loam soil, resulting in localised outbreaks.
- Worse, huge swarms developing in the Horn of Africa are likely to arrive in Gujarat and Rajasthan by early July. If the monsoon retreat gets delayed, they will extend their stay, just like last year, and might cause a locust plague by the end of the year.

Pride under threat

When Prime Minister Narendra Modi announced on June 10 that India's Asiatic Lion population recorded a historic increase of 151 in the past five years, he hid a worrying fact. The country has lost 92 Asiatic lions since January 2020 and nearly 40 per cent have died in the month of May alone.

Are the increased figures correct?

- Even the historic increase claim is not completely correct as the new numbers are based on a routine monthly assessment carried out by officials of the Gir Reserve Forest in Gujarat, whereas the population figures of 2015 are based on the 14th Asiatic lion population estimation, which happens once every five years.
- The state numbers are also different from that of the committee appointed by the Union MOEFCC. It claims 46 lions have died since January this year, which is exactly half of the committee figures.
- The PIB release says the new lion population numbers are based on the findings of Poonam Avlokani (counting done every full moon) conducted by the Gujarat forest department on June 5 and 6. The department has been conducting this routine monthly counting since 2014 to get a rough estimate and it has never been promoted as an official figure of the government before.

Reasons for death -

India is witnessing one of the worst outbreaks of canine distemper virus which was the reason behind most of the deaths. 59 lion deaths were recorded at the Gir east division, which was the epicentre during the last outbreak of canine distemper virus in September 2018. The numbers also suggest the current outbreak is more lethal than that of 2018 when 26 lions died within a month.

Apathy towards Asiatic Lion -

- In April 2013 the Supreme Court had ordered the relocation of some Asiatic lions from Gujarat to Kuno Palpur wildlife sanctuary in Madhya Pradesh. In April 2013, an expert committee was set up to complete the translocation within six months. It has been over seven years and the government is still delaying the process.
- The demand for translocation peaked again in September 2018 after the canine distemper virus outbreak. This could be the reason the Centre and the state are colluding to downplay the crisis.

Paddy Puzzle

After encouraging farmers to grow paddy for more than 50 years since the Green Revolution, the Haryana government now wants them to shift to other crops.

Why?

- It says paddy, being a water guzzler, is responsible for the rapid decline in groundwater across the state.
- Between 1966-67 and 2018-19, the area under paddy across Haryana has increased by 654 per cent; by comparison the area under wheat has increased by 244 per cent, oil seeds by 194 per cent and total food grains by just 29 percent, according to the Economic Survey of Haryana 2019-20.
- During the same period, between 1974 and 2018, the state reported an average water table drop of 10 metres. The decline has been steep in paddy-rich districts like Kurukshetra, Kaithal and Fatehabad where, as per the Ground Water Cell of the State Agriculture Department, the average water table has dropped by 30 m, 23 m and 19 m respectively.

Alternative -

- For the past two years, the government has been announcing lucrative schemes ahead of kharif season to encourage farmers in paddy-rich areas to grow less water-consuming crops like maize and pulses.
- Last year, the state launched '**Jal Hi Jeevan**' scheme on a pilot basis in seven blocks, each in a different district, where the water table dropped by 12 m between 1999 and 2018, says the Ground Water Cell.
- The aim was to **wean off 50,000 ha of the 87,900 ha under non-basmati paddy that have huge appetite for water**. It offered the **financial assistance of Rs 2,000 per acre (0.4 ha)**, free maize seeds, crop insurance and assured procurement at minimum support price (MSP). Yet the scheme received a lukewarm response.
- On May 9 this year, the government relaunched the scheme under a different name, **Mera Pani Meri Virasat**, and increased the incentive amount to Rs 7,000 per acre. Though any farmer in the state can benefit from the scheme, the government is targeting eight paddy-rich blocks—Ratia in Fatehabad district, Siwan and Guhla in Kaithal, Pipli, Shahabad, Babain and Ismailabad in Kurukshetra, and Sirsa in Sirsa district—where the groundwater level has dropped to below 40 m.
- As per the scheme, farmers in these blocks will be eligible for the benefits only if they restrict paddy cultivation to 50 per cent of the land and grow less water consuming crops on the remaining.

Why farmers are not reluctant?

- One common narrative across Kurukshetra and Kaithal, where six blocks have been targeted under the Mera Pani Meri Virasat scheme, is that any crop other than paddy has less chance of survival in the area. For instance, every monsoon, most of Kaithal receives continuous rainfall for four to five days. That's the time no other crop but paddy survives.
- Besides, maize requires 21oC for germination and 32oC for growth. Here the temperature goes up to 40oC. The plant might grow in such high temperatures but will yield poor grains.

- Soil here is clay which leads to water-logging in case of a good rainfall. But maize and pulses require sandy loam soil. Maize is, in fact, sensitive to stagnant water, particularly during the early stages of growth. It does not survive if water stagnates for over 48 hours.
- In fact, farmers who opted for Jal Hi Jeevan Hai last year failed to benefit from it. Some 150,000 kg of maize seeds were sown on 7,490 ha last year. But three days of incessant rain destroyed most of the crop. Harvesting could be done from only 235 ha.
- There is neither any established market for the crop in the region nor any arrangement for procurement. The arthiyas (agents) and traders at the mandi refuse to buy it.

Other reasons for groundwater woes in Haryana -

The track record of the government in promoting micro-irrigation is behind its targets. In 2018-19 alone the state had to bring 20,000 ha of farmland under the sprinkler system and 2,000 ha under drip irrigation. But the Economic Survey of Haryana for 2018-19 shows that it has achieved only 33.7 per cent and 27.45 per cent of the targets.

What should be done?

If the government really wants a shift to maize, it should come up with a policy to promote it and put a procurement system in place. Besides, the crop needs to be promoted in areas that receive less rainfall. The government should also establish a market for the crop by setting up industries like starch manufacturing plants.

Give them guaranteed basic income

According to the National Sample Survey, since 2012, a minimum standard of living for the country's poor is under threat.

How serious is the issue?

- India's unemployment situation, which was 30 million or 6.1 per cent of the country's labour force in 2017-18, will worsen as the economy goes into a recession in Financial Year 2021, primarily due to covid-19.
- Even the Prime Minister's Economic Advisory Council warns that unemployment will rise by 40 to 50 million. This will exacerbate the pre-existing problems of the lowest (poorer) deciles of our population, which continue to remain unaddressed.
- For instance, the All- India Debt and Investment Survey of NSSO for 2013 shows that 51.9 per cent of the 90 million farmer households were indebted that year. Worse, most loans were for consumption purposes, and not for production.

Failure of PDS -

- A survey by the Stranded Workers Action Network (SWAN) during the first 21 days of the lockdown showed cash transfers or free foodgrain supply under the public distribution system (PDS) hardly reached anyone: 98 per cent of the 11,100 migrant workers surveyed reported they had received nothing.
- Another survey 32 days later showed only a slight improvement. A separate survey of 4,000 workers from various states showed that half from rural areas and one-third from urban areas had not received cash transfers from the government.
- Almost 37 per cent of them said that having lost their livelihoods they had to take loans to cover expenses during the lockdown, mostly from moneylenders or friends and families.
- This level of vulnerability calls for massive job creation in industry and services. But that is unlikely for quite some time post COVID-19.

Pitfalls of existing schemes -

Three cash transfer schemes have been initiated since late 2017: Rythu Bandhu by the Telangana government, KALIA by the Odisha government and PM-KISAN (Pradhan Mantri Kisan Samman Nidhi) by the Centre. But there have been issues with their design.

- First, they target farmers, leaving out the million other vulnerable people and even excluding several categories of farmers.
- Second, governments seem to have decided that the way out of the crisis in agriculture, where rural distress and farmer suicides keep rising, is cash transfer. They are also being perceived as a way out of farm loan waivers, which many governments have adopted in the country without

necessarily relieving rural distress. Third, they exclude significant parts of the universe they seem to be trying to benefit, and in doing so may end up worsening some inequalities that already pervade rural areas.

- Fourth, they suffer from problems with identifying the beneficiaries in a situation where land records are poor, rarely updated and the quality of data is highly variable among the states.

Time for a Minimum Income Guarantee scheme -

To make cash transfers a success in India, at least three requirements should be fulfilled: correct **identification of the poor; biometric identification of the beneficiaries; and bank accounts for them**. Since 2018 these three preconditions exist, which can enable India to introduce a credible targeted cash transfer programme.

- The Socio-Economic and Caste Census 2011-13 (SECC) correctly identifies beneficiaries based on verifiable criteria.
- The second condition, is possible since all citizens have Aadhaar card, which is biometric-based and should avoid duplication and ghost benefits.
- Finally, after the opening of over 300 million accounts under Jan Dhan Yojana, all households have bank accounts.

What needs to be done?

- Some issues still need resolution. SECC is seven years old and the lists need to be revalidated by gram sabhas. This way, unjust exclusions and unfair inclusions can be eliminated.
- Second, Aadhaar numbers must be seeded into bank accounts to eliminate “ghost beneficiaries appearing”.
- Third, once seeding is done, any household with more than one bank account should be removed from beneficiary lists.
- Fourth, there may still be households that don't have bank accounts; they will have to be discovered through gram sabhas and mohalla sabhas.
- Finally, since bank branches are present at a frequency of one per four-five villages, the number of banking correspondents will have to increase.

Why India should worry about a warming Arctic?

The Siberian town of Verkhoyansk, known for the largest temperature range in the world from -67°C to 37°C , got scientists worried when recently it recorded the highest temperature in the Arctic circle in the last 140 years at 38°C . This is around 18°C higher than the normal for this time of the year for the place.

What does it mean?

Arctic warming increases the north-south migrations of the polar jet stream, a permanent band of winds over the region. The jet stream is like the fence between the cold high pressure air of the Arctic and the warm low pressure air of the subtropics. If this fence swings north-south then the cold and warm air follow the jet stream.

What does it mean for India?

- The impacts of a warming Arctic can be felt as far as in India in various ways. For instance, Western Disturbances respond to the pressure variations associated with the jet stream swings. Western Disturbances are extra-tropical storms that originate in the Mediterranean and are responsible for rainfall in the northwest, northern and northeastern India during the winter and spring months and snowfall in the high altitude regions.
- This year, they were particularly active and caused heavy rainfall in March, April and May over northern and northwestern India. These rains, moisture and the vegetation they produced were partly responsible for the early locust attacks in Rajasthan which has spread as far east as Chhattisgarh for the first time in decades.

The great digital divide

After the Central government announced a nationwide lockdown on March 24 and the school received orders to hold classes online, it exposed the great digital divide between urban and rural India.

Education is just one area that has highlighted the digital divide between India's rural and urban areas during the lockdown. The trend is evident everywhere— telemedicine, banking, e-commerce, e-governance, all of which became accessible only via internet during the lockdown.

Key statistics -

- As per the monthly report released by the TRAI on June 2020, **the country had over 1,160 million wireless subscribers in February 2020**, up from 1,010 million in February 2016. This is a rise of 150 million subscribers in five years, or 30 million per year. The growth has been evenly distributed in urban and rural areas, with the number of **urban subscribers increasing by 74 million** (from 579 million to 643 million) and **rural subscribers by 86 million** (from 431 million to 517 million).
- But this growth only indicates the **rise in basic telecommunication facility**. Services such as online classrooms, financial transactions and e-governance **require access to internet as well as ability to operate internet-enabled devices like phones, tablets and computers**.
- As per the 75th round of National Sample Survey conducted between July 2017 and June 2018, **just 4.4 rural households have a computer against 14.4 per cent in urban areas**, with **just 14.9 per cent rural households having access to internet against 42 per cent households in urban areas**. Similarly, only 13 per cent people of over five years of age in rural areas have the ability to use internet against 37 per cent in urban areas.
- Urban areas have over 104 internet subscriptions per 100 people (many have dual sim cards with internet connectivity), while the figure for rural areas is a little over 27. Such numbers confirm the extent of India's rural-urban digital divide.

Other issues -

- In rural areas, where the earning member of the family has to carry the phone while going out to work. In a family that has, say, three children, how does one decide who gets to attend classes, assuming the phone is accessible.
- The **Mobile Gender Gap Report 2020** released in March by GSMA, an association of industry organisation representing interests of mobile network operators worldwide, says that while 79 per cent men own a mobile phone in the country, the number for women is 63 per cent. The gender gap in mobile internet users is a huge 50 per cent, it states.
- **States too greatly differ in terms of people that have access to computer or in the know-how to use internet**. Himachal Pradesh leads the country in access to internet in both rural and urban areas. Uttarakhand has the most number of computers in urban areas, while Kerala has the most number of computers in rural areas. Overall, Kerala is the state where the difference between rural and urban areas is the least.

Government response -

- 2014 saw the launch of National Digital Literacy Mission with the target to train 1 million people in selected districts in 18 months, followed by the launch of Digital Saksharta Abhiyan the same year to train an additional 4.2 million people in four years. The schemes, say critics, overlapped and were only partially successful.
- Internet traffic saw a big jump after the launch of Reliance's Jio phone in 2017, which provided free voice calling facility and data packs in the initial period after its launch. This is corroborated by the Nokia MBIT Index 2020, which shows that data traffic in India has increased by 44 times in past four years.
- Still, there is a huge population on the wrong side of the divide, lacking access to a technology widely considered a fundamental right.

Mobility redefined

Public transport ridership came to a halt due to complete lockdown in India. Other countries that did not impose a lockdown and kept their public transport functional have also faced drastic reduction in ridership—by as much as 70 to 90 per cent. This calls for an urgent need to rebuild confidence in the public transport.

Exposed the system -

- The pandemic situation has dealt a major blow to the country's precarious public transport system. There is already a huge shortfall in the number of buses needed in urban India. There are only 48,000 buses against the requirement of 188,500, as estimated by the Union Ministry of Housing and Urban Affairs (MOHUA). Even this capacity has now been reduced by more than half, and has also led to equity concerns over commuting needs of lower income groups who are in an urgent need of livelihood security.
- Estimates by German development agency, Deutsche Gesellschaft für Internationale Zusammenarbeit (giz), show that while the overall cost of operations of bus transport has reduced by 4 per cent during the lockdown, the traffic revenue has reduced by a massive 48 per cent. This has created a 69 per cent increase in the annual viability gap funding requirement of bus transport agencies. Poor bankability of state transport corporations, limited revenue sources with urban local bodies and disproportionate share of transport related funding for road infrastructure further aggravates the challenge.

An unexplored potential -

- To maintain physical distancing norms, the demand for contact-free transport— walking and cycling—has caught the public imagination. Cycling and walking infrastructures for shorter trips can thus make a big difference in cities across the country.
- As per the Census 2011, some 47 per cent of daily trips in urban India are by walking and cycling. In NCR, the share is 40 per cent and for the National Capital Territory (NCT) of Delhi, it is 37 per cent (or more than one-third of daily trips in the region). In fact, across urban India almost 60 per cent of the daily trips are within five kilometres. The share is almost 47 per cent for NCR and 48 per cent in NCT.
- Yet, actual public funding remains narrowly focused on the construction of car-centric roads and highways. Data on the setting up of smart cities, accessed from MOHUA in February 2019, shows that footpath and non-motorised transport infrastructure accounted for only 7 per cent of the funds spent; public transport accounted for 17 per cent of the funds, whereas 50 per cent of the funds was spent on roads and highways.

Way forward -

- A compact city with walking and cycling and public transport access can save 10-30 per cent of the transport cost, reduce travel time, increase productivity, reduced traffic casualty rates, use up less land for parking and allow energy savings and emissions reduction.
- **Reduce the need for mobility** - To practise physical distancing, institutions and offices have maximised the use of digital platforms. There are also several other benefits of WORK FROM HOME, which include saving of rent for office spaces, reduction in associated operational costs and increase in productive time due to less commuting.
- India is reopening the economy to secure jobs and livelihoods to end the human misery unleashed by the pandemic. Public transport and safe access are non-negotiable. The pandemic has indeed re-emphasised the need for equity in transportation systems, public spaces and street spaces for safety and accessibility for all.