



A tool for thought: Forecasting the Pandemic

GS III: Disaster and Disaster Management.

Crux: Pandemic forecasts must be used to induce changes and avoid worst-case scenarios

News: A committee of experts — well-regarded mathematicians and infectious disease experts — appointed by the Department of Science and Technology to use mathematical modelling and forecast the course of the pandemic has brought good news.

Findings

1. By their estimate, India passed its COVID-19 peak in September and the decline in the overall caseload being observed for nearly a month now is to continue.
2. Active cases, about 7.5 lakh now, are expected to drop below 50,000 by December, and by February, the pandemic is likely to extinguish itself with only 'minimal' (not zero) infections.
3. If this trend continues with all safety precautions in place, the pandemic can be controlled with minimal active symptomatic infections by the end of February 2021, when the mortality rate is projected to be 0.04%.
4. There is comfort in the modelling. It shows that measures adopted in the past six months have brought us to a level where the pandemic is under control. But this comfort is under the assumption that precautionary measures are continued.

Down But not Out
COMMITTEE HAS RECOMMENDED...

 Safety protocols should continue

Congested, closed spaces should be avoided as much as possible

Special care should be taken of those over 65 years & children

MODELLING SHOWS...

Migration in Bihar & Uttar Pradesh did not lead to a spike in cases in these places

Had India not gone for lockdown in March it would have been "hit hard"





5. There would be no significant gains from a strict lockdown beyond the district level, and current containment measures would suffice, except if there are local outbreaks that threaten to overwhelm health-care facilities there.
6. However, before February of next year, there could be a second wave of infections if caution is thrown to the wind during the festival season. The model predicts that during the festival season, active cases can peak at 2.6 million in October if safety precautions are not followed.
7. Their calculation also showed a peak by July latest, with anything from six to 15 times the existing infections had there been no lockdown or if it had been delayed to April.

Assumptions and caveats

1. While it is reasonable to assume that the seven-member committee has been scrupulous, the caveat is that this is still a forecast based on mathematical modelling. There are some strong assumptions.
2. The decline will continue only if there are no major mutations during winter, protective antibodies are durable, and current restrictions are maintained.

Mathematical modelling and pandemic forecast

1. The purpose of pandemic modelling is to generate a probabilistic overview of the future.
2. The datasets current forecast has relied on are publicly available and estimated, within a population, those Susceptible, Exposed, Infected and Recovered. It is extremely dependent on the quality of the data.
3. Experts associated with the pandemic have reiterated many times that mathematical modelling ought not to be taken literally. The latest assessment too should then be used not to critique or justify past decisions but dwell more on the future. For instance, if the model suggests that the pandemic would extinguish by February with a dramatic dip by December, then should the accelerated clinical trials of potential vaccines be the top priority?
4. Mathematical models, to be useful, must induce policy or behavioural change to avoid their own worst-case scenarios and this latest assessment must be seen — no more, no less — as a tool to this end.



Dormant but waiting to strike: Terror Outfits

GS 3: Role of External State and Non-state Actors in creating challenges to Internal Security.

CruX: During the pandemic, we have fortunately been hearing little about terror organisations of the likes of the Taliban, al-Qaeda, Islamic State, Lashkar-e-Taiba (LeT) and Jaish-e-Mohammed (JeM). This is partly explained by the fact that open terror attacks have been reducing, presumably because terror outfits lack resources.



But there is no ground to conclude that terror outfits have become less vicious or are irrelevant. Given their past resilience, they continue to pose threats to modern society, especially to India and its neighbourhood.

Threats persist

1. They are also still alluring to misguided youth in India whose loyalties are extraterritorial. Their numbers may not be formidable, but they can cause a ripple effect that cannot be underestimated.
2. Also, Terrorist cells are probably engaged in the quiet process of garnering resources for future lethal assaults against India and other countries in the neighbourhood.
3. Once the pandemic eases, we may see a resurgence of terror.
4. The aggravation of poverty in developing nations due to COVID-19 could offer a fertile ground for recruitment and intensified religious indoctrination, which are dangerous to peace.
5. We should keep a particularly close eye on the al-Qaeda and the Islamic State because there is evidence that their recruitment remains undiminished by the problems posed by the pandemic.
6. Reports say that these outfits have been reorganising and rebuilding during the pandemic. Only these two outfits have an impressive global reach backed by global ambitions. They are present not only in West Asia but also in Africa.



7. The other outfits — JeM, LeT, etc. — are confined to the Afghanistan-Pakistan area.

Significance of the Doha Accord

1. Of great import in this context is the Doha Accord signed on February 29 this year between the Taliban and the U.S., which has brought about an improved relationship between the two.
2. The U.S. is now less of an adversary to the Taliban because it has agreed to a near-total withdrawal of its troops in return for the Taliban's promise to preserve peace in Afghanistan.
3. Ironically, the U.S. intervened in Afghanistan immediately after 9/11 only to capture Osama bin Laden and his associates. However, it ended up getting entangled with the Taliban. After hostilities for several years, the U.S. and the Taliban have displayed some sagacity and are in the process of brokering peace.

Implications of the Doha Accord for India

Considered a great victory for the Taliban, and possibly to a smaller extent for Pakistan, the Doha Accord has some serious implications for India. The Taliban's assurance to the U.S. that, as part of the agreement, it will keep the al-Qaeda under check seems an exercise in deception. The Taliban and the al-Qaeda need each other in many areas. Both are friendly towards Pakistan and could pose a problem or two to India in the near future. This is worrying.

This scenario highlights the fact that India will have no respite from the al-Qaeda and the Islamic State, the two most organised and motivated groups. Many recent raids by the National Investigation Agency point to an al-Qaeda network in India. Also relevant is the training support received from Pakistan. Once the situation gets better, the al-Qaeda, in cahoots with other aggressive Islamic outfits in and around Pakistan, is bound to escalate the offensive against India.

Though Al Qaeda is vulnerable and weak today, operational skill and swiftness can quickly turn peace into disorder. The al-Qaeda has a robust cadre from which a strong and young leader could still emerge to lead it in order to intimidate the civilised world.