

# COVID-19

Date: 22<sup>nd</sup> March, 2020

**267,013**

Confirmed cases

**11,201**

Confirmed deaths

**185**

Countries, areas or territories

**COVID-19: Lessons learnt from this  
novel pandemic**



**COVID-19** or **Corona Virus Disease of 2019** is undoubtedly the most talked about topic these days. This unprecedented pandemic has resulted in a number of things that are novel for all of us. We have seen so many things since the arrival of COVID-19 that we are forced to adopt to survive. Let us understand what is COVID-19 and then explore the lessons learnt from this pandemic.

## What is COVID-19?

Here is an explanation from [World Health Organization \(WHO\)](#) -

***“Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV).***

***Coronavirus disease (COVID-19) is a new strain that was discovered in 2019 and has not been previously identified in humans.”***

The corona viruses are a family of viruses that are common in humans and many different species of animals. It is also known that in rare cases, the animal coronaviruses can infect humans and then spread between humans.

## Where and how did it all start?

As per [WHO](#), a pneumonia of unknown cause detected in Wuhan, China was first reported to the WHO Country Office in China on 31 December 2019. The outbreak was declared a Public Health Emergency of International Concern on 30 January 2020. On 11 February 2020, WHO announced a name for the new coronavirus disease: COVID-19.

There are a number of theories floating around on how it was all started. One of the prevailing theories (but not confirmed officially) is that it started in Wuhan. Wuhan has a large live seafood and live animal market. It could have started in such a market as such markets are very unhygienic, densely packed and both live and dead animals and birds are kept together. So, they pose a great risk of such animal viruses infecting humans working in these markets. Afterwards, it spreads among humans through contact. The animal source is not yet confirmed but it is considered to be a BAT.

## How fast can it spread?

The numbers are increasing very fast. Here are couple of snapshots from the WHO site about the current outbreak situation –



Numbers at 02:58 GMT + 5:30 on 21<sup>st</sup> March, 2020



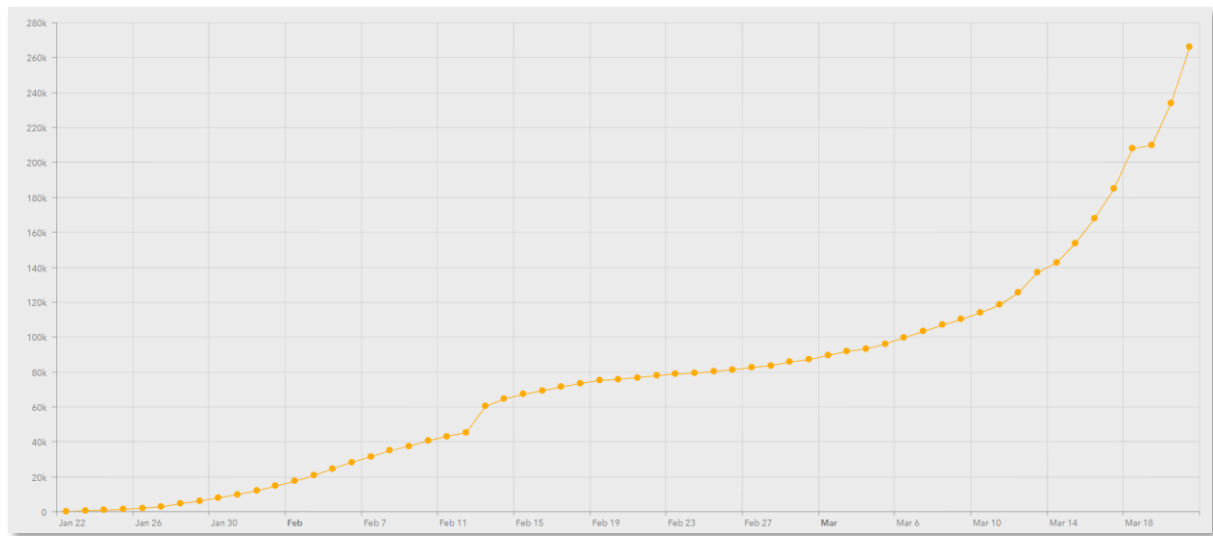
Numbers at 02:58 GMT + 21:20 on 21<sup>st</sup> March, 2020

Source: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

In less than 20 hours, the situation changed exponentially-

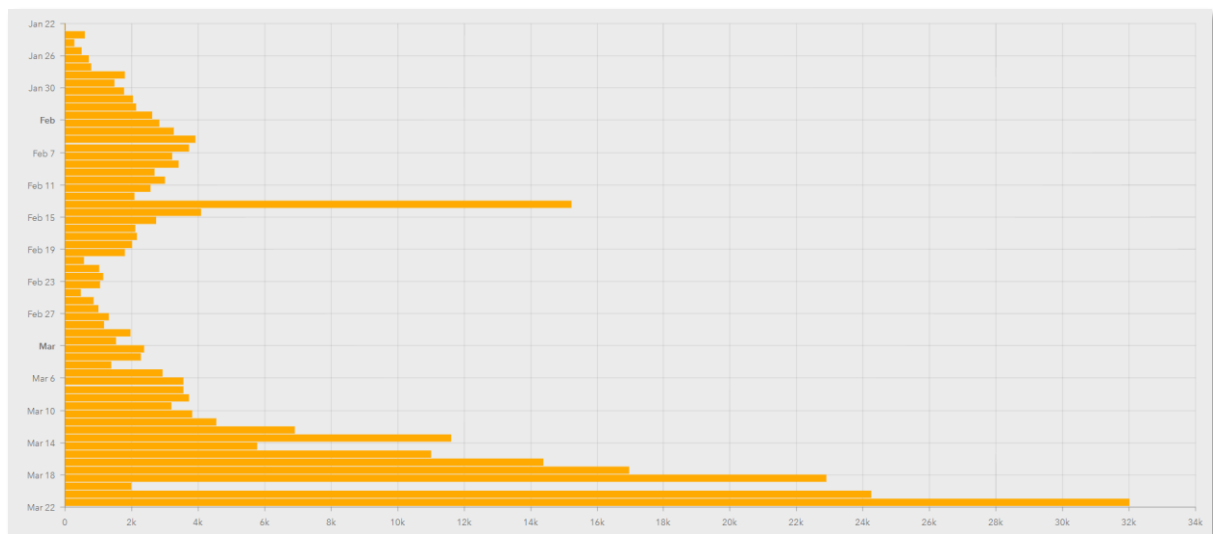
- ❖ 4 new nations
- ❖ 32000 new confirmed cases
- ❖ 1,344 confirmed deaths

Here is the scary picture. The cumulative number of cases is growing at an extraordinary pace.



Source: <https://experience.arcgis.com/experience/685d0ace521648f8a5beeeee1b9125cd>

The number of confirmed cases reported by date of report



Source: <https://experience.arcgis.com/experience/685d0ace521648f8a5beeeee1b9125cd>

We really need to understand the underlying reasons for this exponential growth and should ask ourselves some difficult questions like -

- ❖ Are we capable to handle the challenges that are posed to us by COVID-19?
- ❖ Are we doing enough to ensure survival?
- ❖ Are we doing enough to prevent further spread of the disease?
- ❖ Is our eco-system sustainable to help us survive beyond a point?
- ❖ Are we prepared to handle similar situations in future?
- ❖ Are we willing to take steps to better handle similar situations in future?

Well, I don't know the answers to all of these questions. But, on the basis of what all of us are seeing and observing, we can say it safely that we have a lot to do to survive this current scare and take a number of steps to handle similar situations better in future.

If we were doing enough, we would be seeing a flattened curve here. What do I mean by flattened curve? Here is a [good article](#) on it from Washington Post

## What have we learnt from this pandemic?

***Government can do only so much. Citizens need to show resolve and restraint***

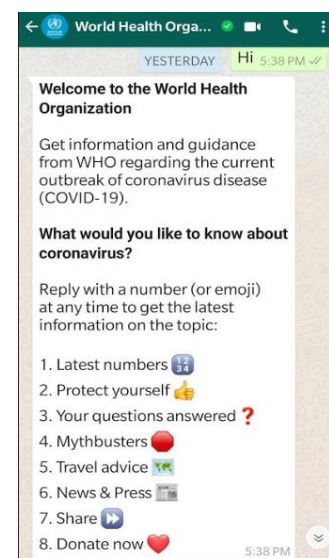
Irrespective of the countries, the pandemic spread very fast. One of the key reasons for the same is that the citizens didn't take it seriously in the initial phases. The prescribed preventive actions by Government were ignored. Social distancing didn't start as fast as it should have. Clearly, better discipline from the citizens could have slowed down the spread to a manageable pace.

Be what you are in normal times – but in such dire situations there is a need for discipline and follow the instructions of the Government.

***Misinformation is a pandemic as well***

There is so much of misinformation floating around. There is no easy way to differentiate between correct information from misinformation.

We should follow the trusted sources like WHO site or Government official channels. Please make use of the WHO's WhatsApp number which has been launched to bring latest information about COVID-19 to the billions. Read more about it [here](#). The service can be activated through a link. You just need to send "hi" to activate the conversation. Also, please double check any information from multiple sources before sharing any content. Please take the time off from being the "Social Media Expert" for some time. Be responsible and don't add to the misinformation mountain



### ***We panic easily – don't we?***

One of the primary reasons for panic is misinformation. Look at the rush for masks and sanitizers. Look at the empty shelves in super markets. People who didn't panic and rushed to hoard stuff finally ended up doing the hoarding as everyone else was doing it. Look at our changed reaction to people sneezing or coughing. "Bless you" has lost its meaning!

Well, it is too late to suggest anything. But, let us at least support our domestic helps. Please don't force them to come. Please don't cut their salaries for absence. Help them with some ration or may be even masks and sanitizers.

### ***Supply chain vulnerabilities have been exposed***

A great number of companies have suppliers in Wuhan, Hubei province of China which is the epicentre of this pandemic. The lockdown has created a critical shortage in supply across various industries. The demand, on the other hand, has increased significantly as people have started hoarding things.

No one could have anticipated the significant increase in demand and critical shortage of supply. The companies have realized the importance of risk management and business continuity protocols. Many companies would already have invested in these areas. They should definitely leverage the learning of this situation in their future planning for sourcing, transportation, risk management and business continuity measures

### ***Globalization has its own cost***

Look at the current situation – It started in China and despite the efforts to quarantine the epicentre of the pandemic, it has now affected 177 countries! Some of these locations are tourist hubs.

China is among the biggest suppliers for various industries across the world. The economic impact is there for everyone to see.

We have couple of learning here. We have to be very honest and transparent about our travel history with the authorities when such scenarios occur to help prevent the spread at a fast pace. A country can't close itself to globalization but they can surely put measures in place to diversify dependence on a particular country or region.

### ***Hygiene is the new Gold***

As per the latest estimates, this pandemic will cost the world billions of dollars (if not trillions) in addition to irreplaceable loss of lives. So many industries have been impacted – Transportation, Tourism, Retail, Hotels, Entertainment (Theatres etc.), Sports, Technology, Construction and many more. People depending on daily wages are hit badly. As per many several experts, the economic recession is looming large.

All of this is a result of unhygienic environment that resulted in this pandemic getting started. Once we are out of this, let us not forget the good and hygienic habits that we are developing now. Once the situation improves, please don't forget to wash hands regularly, use sanitizers regularly etc. Hygiene is the new Gold indeed. Look how much could have been saved; how much can still be saved if we remain hygienic!

### ***Contact less transactions/operations/services are a boon in such times***

We all have benefitted from mobile banking, Work from Home, Tele-medicine, e-commerce, digital payments, digital channels, contact less food deliveries, video conferencing, entertainment through streaming services/cable networks.

Government as well as companies/organizations need to invest heavily in contactless transactions/ operations/ services to prepare for any similar situation in the future.

### ***People develop the false belief – It won't happen to me***

It is clear from various reports that people were not taking this pandemic seriously. A large number of people develop a false belief that it won't happen to them. A large number of people also get a false sense of safety by wearing regular masks or using regular sanitizers. Look at the [message](#) to the young people from Mr. Tedros, Director General, WHO.

***“You are not invincible. This virus could put you in hospital for weeks or even kill you. Even if you don't get sick, the choices you make about where you go could be the difference between life and death for someone else”***

Young population can't afford to be complacent even if the virus has hit hard the elderly primarily. We have very limited understanding about this virus. We should try our best at following the guidelines provided to us by credible entities.

### ***Technology can help and digital is the way forward***

Technology has a great role in such scenarios. China leveraged a number of technologies like AI, big data, mobile apps, 5G technology to fight this battle. A number of companies had to reduce the manpower at office and they had to leverage technologies like VPN, video conferencing etc. to support their employees to work from home. Service industry leveraged intelligent chatbots to provide support. Cloud technology helped organizations scale up quickly. People preferred digital payments instead of cash transactions to avoid chances of getting infected.

Clearly, digital is the way forward. We have to look at digital and contactless technologies in future to ensure seamless and smooth operations in normal as well as challenging times.

### ***This pandemic is equivalent of a world war***

The impact of this virus is so great that this pandemic can be considered equivalent of a world war (if not bigger than it). The COVID-19 virus has impacted 177 nations. The restrictions in movement, travel, social gathering is similar to what were enforced during world wars. The impact on the economy is also severe.

The silver lining is that we are not fighting each other. The enemy is common and the collaboration between nations will help us overcome this challenge.

## The big challenge that lies ahead of India

We have seen cases of COVID-19 emerging in India in last few days. The Government and the Indian citizens both have realized the severity of the problem that lies ahead. Government is taking a number of steps to help control the spread of COVID-19 in India -

- ❖ Prime Minister Modi urged all Indians to demonstrate resolve and restraint. 22nd March was announced as a "Janata Curfew" - a curfew by the citizens (Janata) and for the citizens (Janata). This is a great step and should be leveraged as a pilot to check the preparedness of our machinery to enforce large lock-downs when required. This will provide the Government a lot of insights and they would be able to plan better in case of actual lock-down
- ❖ A high-level Group of Ministers (GOM) has been constituted to review, monitor and evaluate the preparedness and measures taken regarding management of COVID-19 in the country.
- ❖ Government of India has invoked powers under the Epidemic Diseases Act, 1897 to enhance preparedness and containment of the virus and declared COVID-19 a 'notified disaster' under the Disaster Management Act 2005
- ❖ Community surveillance, quarantine, isolation wards, adequate PPEs, trained manpower, rapid response teams for COVID-19 are being strengthened further in all States and UTs
- ❖ There were protocols defined for all the incoming travellers. Now, India has banned all international flights for a week.
- ❖ All passenger trains, metro, inter-state bus services suspended till Mar 31, 2020\
- ❖ Helpline numbers and email have been activated to help the citizens.
- ❖ A number of travel advisories have been issued time to time to warn the citizens
- ❖ A number of states have announced shut-downs to prevent the spread of the virus

Here are the latest numbers from Ministry of Health as on 2:30 PM on 22<sup>nd</sup> March, 2020-

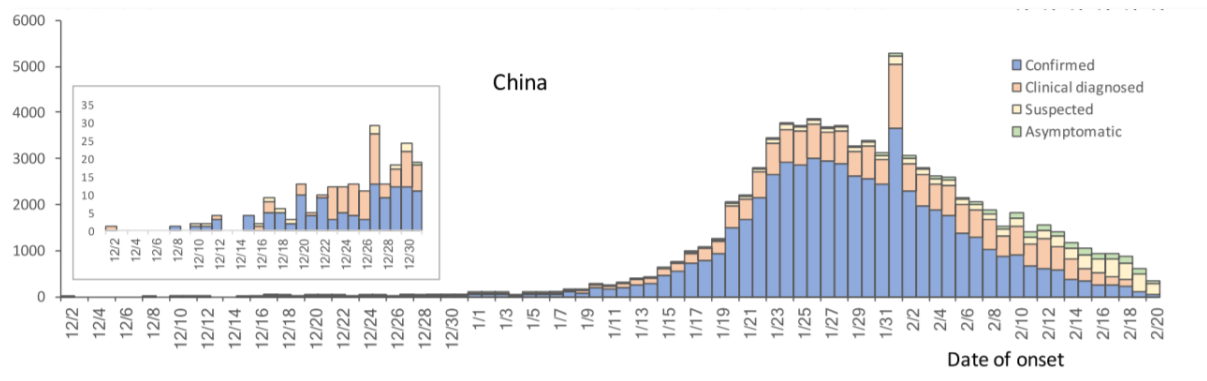


Source: <https://www.mohfw.gov.in/>

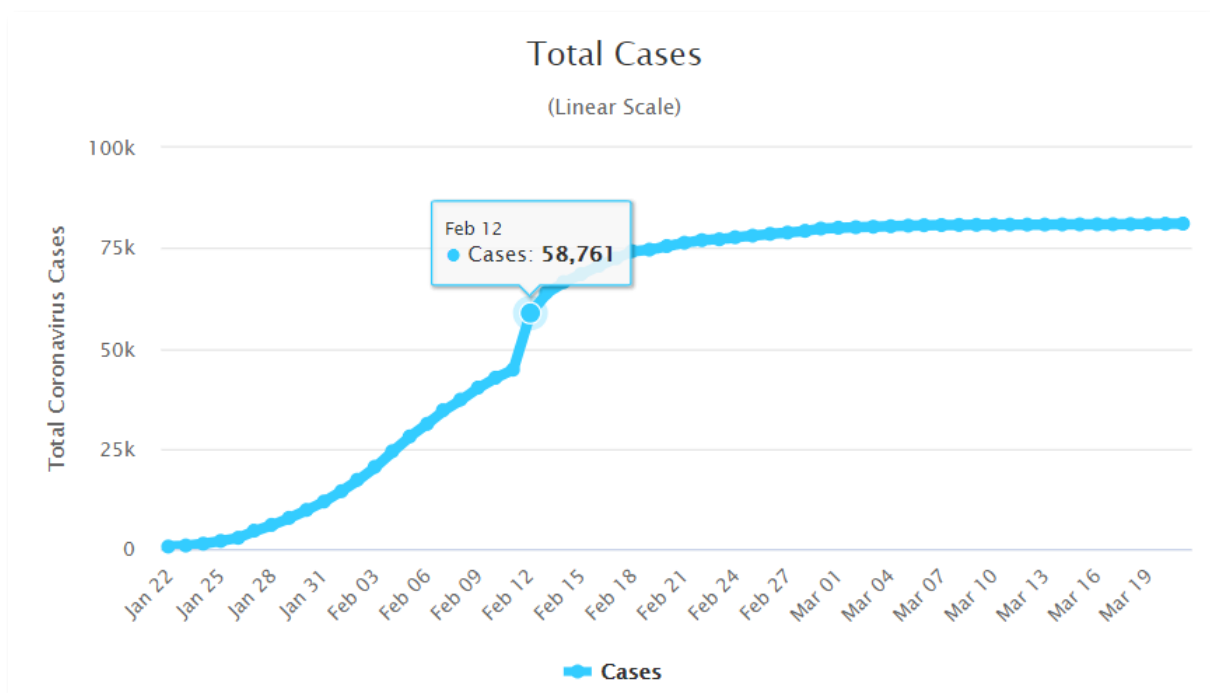
The numbers are increasing and thus there is an urgent need to learn from the experiences of the countries already severely infected with this Pandemic and learn and avoid the mistakes made by them. All the things that we have learnt from other countries are applicable to India. In addition, we have to accept that our situation is far more challenging than that of the countries already severely impacted.

## *We have a huge population*

We are second most populous country in the world after China. If we look at China's COVID-19 onset numbers by date, we should get the sense of what we are staring at.



Source: <https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>



Source: <https://www.worldometers.info/coronavirus/country/china/>

Clearly, China being the most populous country started seeing an exponential growth in the number of confirmed COVID-19 cases. It took them no time for them to cross 58,000 cumulative cases before the measures put by them helped slow down the pace of the onset

India being the second most populous country will need to take proactive measures to avoid similar onset. This is not going to be easy.

### ***Our healthcare infrastructure has limitations***

Let us compare China and India to highlight the differences in the two nations

- Population: (Source: *Worldometer*)
  - o China: 143.7 Cr;
  - o India: 137.6 Cr
- Current health expenditure (CHE) as percentage of gross domestic product (GDP)(%), 2017 (Source: <http://apps.who.int/gho/data/view.main.GHEDCHEGDPSHA2011v>)
  - o China: 5.2%
  - o India: 3.5%
- Current Health Expenditure per capita, 2017 (Source: [https://apps.who.int/nha/database/country\\_profile/Index/en](https://apps.who.int/nha/database/country_profile/Index/en))
  - o China: \$440
  - o India: \$69.29
- Medical Doctors per 10000 population (Source: *The 2018 update, Global Health Workforce Statistics, World Health Organization, Geneva* (<http://www.who.int/hrh/statistics/hwfstats/>).
  - o China (in 2015): 17.855 (Absolute: 2508408)
  - o India (in 2017): 7.256 (Absolute: 1041395)
- Nursing and midwifery personnel per 10000 population (Source: *The 2018 update, Global Health Workforce Statistics, World Health Organization, Geneva* (<http://www.who.int/hrh/statistics/hwfstats/>).
  - o China (in 2015): 23.073 (Absolute: 3241469)
  - o India (in 2017): 21.071 (Absolute: 2821815)

We lag behind in several indicators. So, we should expect to face more challenges than what China faced. Also, we can't be blind about the fact that the supporting technology infrastructure has limitations. So, this is going to be an uphill task to mobilize resources, deploy healthcare resources, form functioning isolation and treatment centres.

India has a long way to go in terms of leveraging healthcare technology in hospitals. Our health records are not structured and interoperable. Many of the hospitals lag minimal health information systems and a number of operations are manual. I can go on and on but let us all accept that leveraging technology as an enabler could have helped us prepare for such a large-scale pandemic. Some of the best in class and technologically advanced healthcare ecosystems are also struggling but they have the advantage of leveraging the technology more effectively than us.

We have no choice but to flatten the onset curve as much as possible to not overwhelm our healthcare and overall infrastructure.

### ***All the solutions implemented by China may not be easily applicable in India***

Let us go through some of the aggressive and strict measures applied by China to try and control the pandemic and then we will check if the same can be applied easily and realistically in India or not.

#### **COMPLETE LOCKDOWN:**

China could completely lockdown Wuhan and nearby cities in Hubei province. So, the entire 50 million population was cordoned off from rest of the country and world and put on mandatory quarantine since late January. This gave China a chance to contain the spread to a limited area it gave them chance to put focused efforts in this area. It also gave them time to put measures in rest of the country to tackle the situation.

**Applicability in India:** India can do it but not without unconditional support from its citizen and Indian Government's uncompromising and rigorous use of its power.

Let us put in perspective this measure of locking down and quarantining in the Indian context. Remember, China locked down a population of 50 million. If Mumbai with a population of roughly 25 million were to be locked down. Imagine the workforce, quick decision making and strict measures required to achieve that. Imagine the unconditional support the citizens will have to provide to achieve this. China had to lock down one area but India may be required to lockdown multiple areas. Though, I hope it doesn't come to locking down even a single area.

#### **AGGRESSIVE WORKFORCE MOVEMENT AND QUICK TESTING:**

China moved the healthcare workforce into Hubei, province quickly. The quick decision making by the top leadership resulted in identifying and mobilizing the healthcare workforce, implementing the containment and isolation measures, testing the quarantined population and ensuring the safety of the workforce.

**Applicability in India:** India will have its some challenges in achieving this. If we have positive answers to the following questions then we definitely can achieve this, if required. Can we establish a task force to take quick decisions? Do we have enough workforce to mobilize? Can we mobilize the workforce quickly? Can we establish isolation wards quickly? Can we test the quarantined patients quickly to control the volume of patients in the isolation wards is manageable? Will the citizens be cooperative in supporting this?

Clearly, Indian Government has proactively started taking some steps related to this measure. Isolation wards are being identified and established. A task force is also formed to monitor the situation. I like to believe that Indian citizens will be responsible and support the Government.

## AGGRESSIVE ISOLATION AND ISOLATION MEASURES:

China implemented aggressive containment and isolation measures and they achieved contact tracing at a great pace.

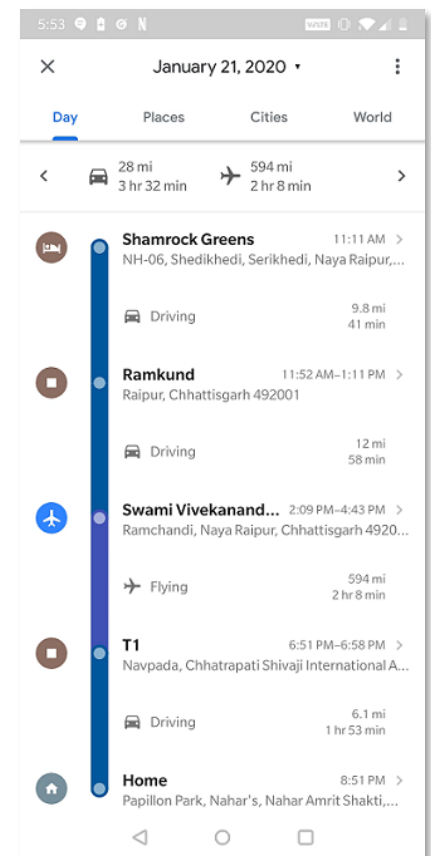
**Applicability in India:** India will have its own set of challenges in achieving this. We are a democracy and no one knows to what extent did China deploy social control and intrusive surveillance to achieve this. If citizens are cooperative and understand the need for unprecedented (but acceptable) measures then and only then we can expect to achieve this with limited resistance. Contact tracing is manageable in countries with excellent infrastructure and leveraging CCTV feeds. India does not have this advantage. There was this news that Indian authorities faced lot of challenges in achieving contact tracing for a resident in a slum area. Clearly, we will need to innovate in order to achieve fast contact tracing.

**LEVERAGING TECHNOLOGY:** China leveraged technology effectively. They leveraged couple of mobile phone apps (Alipay and WeChat) to enforce the restrictions. These apps allowed the government to keep track of people's movements and even stop people with confirmed infections from traveling. Every person has sort of a traffic light system. Color codes on mobile phones in which green, yellow, or red designate a person's health status and let guards at train stations and other checkpoints know who to let through. In addition, they shifted the population to online medical platforms and also leveraged 5G platforms to support rural response operations. New technologies were applied such as the use of big data and artificial intelligence (AI) to strengthen contact tracing and the management of priority populations

**Applicability in India:** India is a technology giant with all the capabilities and resources to leverage technology in fight against COVID-19. This is our best bet. Government should form a tech workforce and they can investigate all the tech enabled measures used by China. They can plan ahead and be ready with these tech enabled measures. They should also be ready with an implementation and monitoring method.

Like China, we could also look at leveraging the mobile technology to our advantage. The color coding system is an excellent method for contact tracing. Here is a thought around how we can leverage the mobile technology in contact tracing. We can also look at exploring the means already available to build apps that can help in contact tracing. For example, google timeline captures the navigation of the users with details relevant for contact tracing. It captures the time and place the user has been. With some minor tweaks, we can look at developing a consent-based app to help the authorities in contact tracing.

Clearly, unless we take hard and effective measures, we won't be able to prevent this disaster from happening.



## What are some of the non-negotiable steps for preparing ourselves for similar pandemics in future?

I am sure Government will do everything they can in their capacity to help us get out of the current situation. But, the logical and appropriate course of action post managing the current situation is to prepare ourselves for similar future battles.

### *What are some of things that we have learnt from current pandemic that will help us prepare for future pandemics?*

- ❖ Government should invest heavily on building healthcare infrastructure. We have to significantly increase the percentage of GDP spent in healthcare. We need to close the gaps in terms of number of hospitals, primary clinics and workforce. Let us focus on building a strong pipeline of capable workforce. Indian Government has taken some steps in the right direction but there is a lot more to be done.
- ❖ The current state of adoption of advance health technologies is wanting. We should help our doctors and medical staff improve their operational efficiencies through technological and digital interventions. We are a technology hub and yet we are far behind in adopting and accepting technology in the healthcare space. Let us not wait for such pandemics to look at advance technologies. Let us start by setting the foundation to capture the data electronically and in structured manner. Let us then start leveraging AI, IoT, Blockchain, Big Data, Analytics, RPA and many other technologies.
- ❖ We need to make huge investments in research and development. We should form a task force of best in the field to lead this initiative.
- ❖ This pandemic has brought the need for emergency machinery to handle such unprecedented and large-scale situations. Government should put in place a strong machinery (or review existing machinery) that can help in putting strong governance measures in place. This machinery should be empowered to take quick and hard decisions, mobilize workforce as required and implement Government's mandate and then monitor, track and regulate the same. This machinery should also have the means to prevent the hoarding of essentials. The learning from the current pandemic should be leveraged to fix any teething gaps and form an effective machinery
- ❖ There is a need for a special focus on hygiene. There should be regulations in place to promote hygiene. We need audit mechanisms to track and monitor public places and industrial bodies as well as animal shelters or markets.
- ❖ eCommerce can be prepared / better equipped to ensure long term sustenance in case of longer lock downs. We should look at putting controls and checks in place to make the operations protected from viruses in every stage of operation. Even the delivery team should be regularly screened to check for infections.
- ❖ Government should continue to invest in digital channels. Cashless transactions or contact less transactions are a boon in such times.
- ❖ Government and organizations should seriously look at leveraging Cloud technology to scale up quickly as and when needed. Such scenarios may lead to the need for scaling up quickly.
- ❖ Government and organizations should focus a lot more on business continuity panning and disaster recovery mechanisms. A number of businesses were impacted in the current outbreak. Many of them could limit the impact on the operations as they had BCP/DR in place.

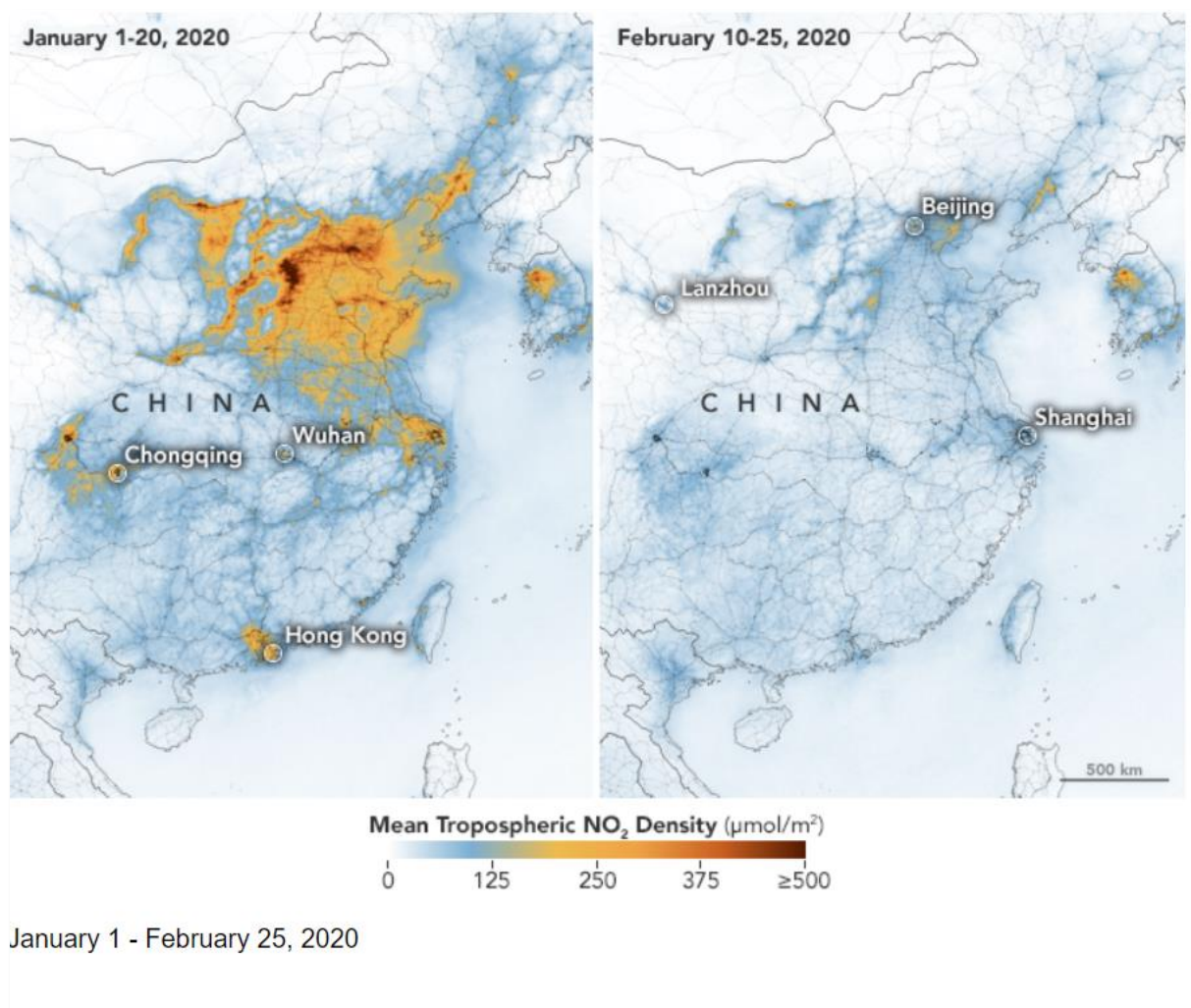
We are soon going to be the most populous country in the world. We can't afford fighting similar battles in future and expect to win without taking such proactive and strong measures.

## Interesting food for thought

There is an interesting development because of the enforced restrictions due to COVID-19 onset.

The planet is seeing improvements in pollution levels. Please take a look at the images shared by NASA Earth Observatory. The images clearly show that the Airborne Nitrogen Dioxide has plummeted over China recently.

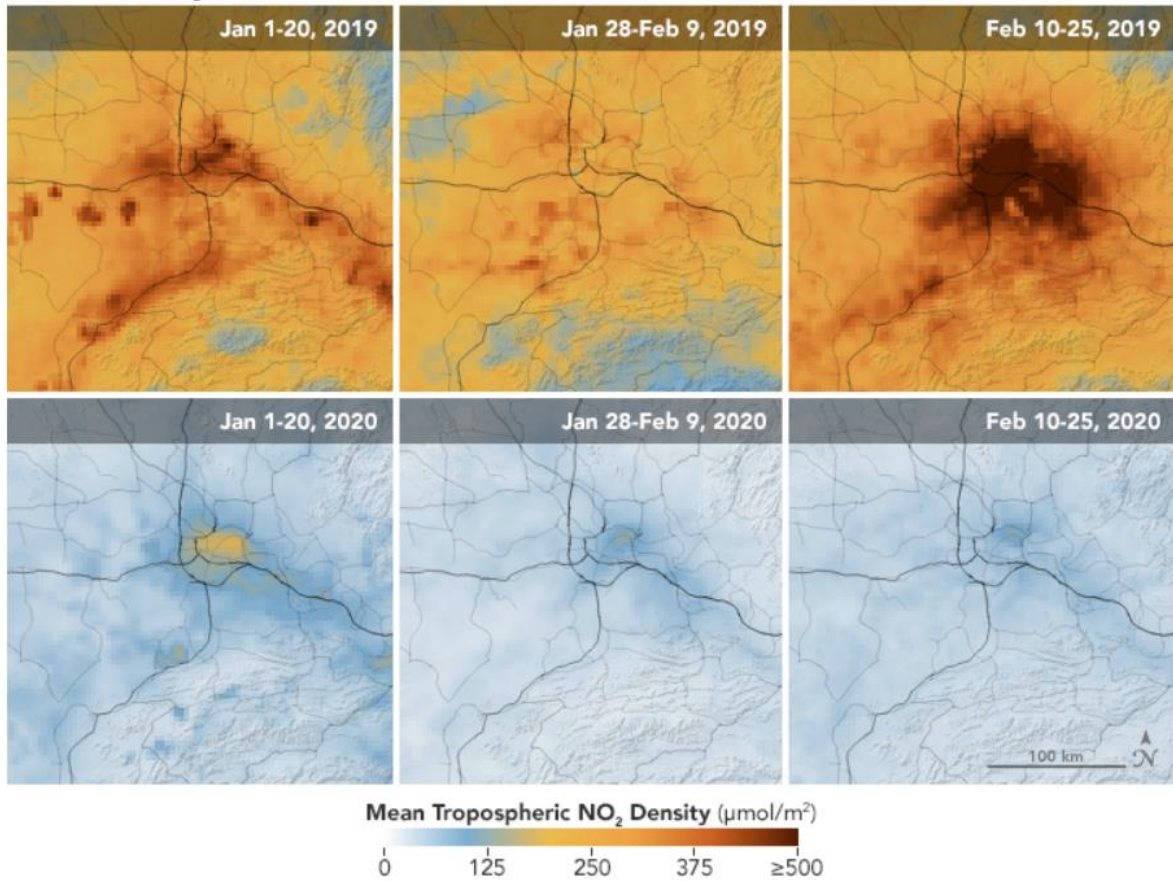
This is also a great learning for all of us. We have the responsibility to treat our planet well. Who knows, this is the planet's way of ensuring its own protection. We need to be aware and responsible enough to protect our own planet.



Source: <https://earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china>

### Pollutant Drops in Wuhan—and Does not Rebound

Unlike 2019, NO<sub>2</sub> levels in 2020 did not rise after the Chinese New Year.



January 1, 2019 - February 25, 2020

Source: <https://earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china>

## Last but not the least - Big thank you for the brave souls supporting us in these dire situation

In the current fight against COVID-19, a number of stakeholders are playing a great role.

I may miss out on naming some of the categories of stakeholders but we should be thankful to all of them who is contributing in this fight–

- ❖ Be it the Doctors, nurses, clinical and non-clinical staff, frontline workers, lab technicians, IT, admin and support teams, guards who are providing or facilitating care.
- ❖ Be it the Government staff and personnel and leadership who are leading this battle from the front
- ❖ Be it the delivery boys and girls, manufacturers, farmers who are ensuring that the supply for basic necessities aren't impacted.
- ❖ Be it the staff in our buildings and societies helping manage the basic amenities
- ❖ Be it the scientists and researchers who are trying their best to find a cure
- ❖ Be it the generous public who is donating money or basic materials
- ❖ Or be it any other stakeholders who are contributing in their own ways

We should be thankful that we have strong, responsible, dedicated and talented individuals and stakeholders who are tirelessly and devotedly performing the duties assigned to them. It is our utmost responsibility to support them in any way possible. Let us support them unconditionally, adjust to inconveniences caused to us, don't resist Government's directions or guidelines and support in any way possible.

They are doing their jobs to help us! A big salute to all of them!

I will conclude this article with a message –

**"WE SHALL OVERCOME THIS CHALLENGE!"**