

Impact and Response towards Covid -19: A comparative study between India and China

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Abstract: The novel corona virus has engulfed the entire world since its first outbreak in China during the later part of 2019. Being a respiratory disorder disease, its exponential growth across the globe has brought the lives of individuals as well as the financial and social outlook of economies to a grinding halt. Through the present paper, we endeavour to unravel the impact of corona virus on the two largest economies of Asia: China- the epicentre of Corona virus and India- one of the most adversely affected country due to corona. While comparing the extent of impact of Covid-19 on China and India, we also envisage the recovery and rehabilitation policies devised and implemented by these Asian tigers, to tackle corona virus. Through our analysis, we conclude that the first wave of corona virus was lethal for both China and India due to sudden outbreak of disease in these countries and their respective unpreparedness. However, the response mechanism and lessons learnt from the first wave were more comprehensively and effectively implemented by China than India during the second wave, which proved ruthless and killing for Indians. Our paper also compare the scope of financial and economic stimulus packages released by these economies to mitigate the disastrous effect of corona. Through our paper, we recommend deeper harnessing of technological advancements coupled with covid related appropriate behaviour and rigorous vaccination drive to contain the third wave in both the countries, especially in India. We also suggest that living with such epidemic should be the new normal.

Key words: India, China, Covid -19, second wave, economic and social impact

1. Introduction

Covid 19 (the disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS- COV-2)), has impacted the world in an unprecedented manner. A microbiological organism weighing less than a milligram has wrecked havoc in lives of millions of people across the globe. The unprecedented pandemic jeopardised the entire world, often suspecting the varied developments models devised by various economies. The pandemic has essentially questioned the proliferation of technological advancements towards societal welfare and the adequacy of social security networks by both developing and developed countries alike.

While handling the pandemic, some countries despite the initial shock and disaster, have responded in an agile and remarkable manner, vis-a vis their counterparts. Some countries in Asia like China, South Korea, Dubai and Scandinavian countries like Finland, Sweden, Denmark have fared well in tracing and controlling of Cov-2. While many developed and developing countries like U.S.A, Brazil, Seychelles and back home India have faced the wrath of the mutating corona virus, sending shock waves across their distressed economies. The severity and the response mechanism of different nations towards covid 19 has been different primarily due to the extent of spread of the virus, the suppression and the mitigation strategies implemented by nations, the robustness of social-medical support, biomedical technological advancements, population sensitivity and cooperation in tackling the virus. The present paper aims to compare and contrast the two largest economies of Asia w.r.t the impact of first wave and second wave of corona on them and how they tackled the pandemic given the mammoth population size and high density of population. The present section introduces the topic while the second and third section discusses the rationale and objective of the study. Fourth section discloses the data and methodology while fifth section explains the results and findings of the study. The last, sixth section suggests the policy recommendations desirable for containing the virus.

2. Rationale of the study

The unexpected and unimaginable outbreak of Covid 19 has exerted tremendous pressure on many countries globally. Countries being small or large or poor or rich continue to face tremendous challenges owing to the catastrophic nature of the virus. Though various studies have been conducted in the near past illustrating the economic and financial hardships undergone by various nations. However, no conclusive and comprehensive study is being taken to compare and contrast the case of Asian Dragon, China and the Asian Tiger, i.e India in the realm of covid-19.

Our paper uniquely offers the comparison between India and China in facing the economic, financial and social impact of Covid-19. Through our paper, we would like to examine the response strategies and approaches devised and adopted by these economies in handling Covid-19. The article also dwells on the efficacy of the response mechanism by these countries while suggesting the future approach towards a safer and sustainable world.

3. Objective of the Study

The paper attempts to accomplish the following objectives through the study:

- a. Examine and study the impact of corona virus during the first wave and second wave in India and china.
- b. Discuss and analyse the response and rehabilitation mechanism plugged in by these Asian countries to tackle the onslaught of corona in their economy.
- c. Evaluate the efficacy of these response stimulus packages in mitigating the disastrous effect of corona virus.

4. Data and methodology

The paper in its nature is analytical and descriptive. The study is primarily based on analysis of secondary data. Various governmental online web resources have been accessed and data has been retrieved from them. Through the study, a comparative analysis is carried out between India and China w.r.t the impact caused by Corona and response mechanism devised by these countries.

5. Results and analyses

5.1 *Impact of First wave of Corona virus in India and China*

The first case of corona virus surfaced in India in January 2020, in the state of Kerala. Since then, gradually but steadily the covid-19 cases in India started rising, spreading across all major metros while exerting pressure on Government to come forward with immediate response and containment mechanism. With the surging cases and being the second most populous nation, India was staring at a national tragedy of unimaginable and incalculable loss. Keeping the health and safety of Indians at the forefront, India underwent one of the longest lockdown any country had ever imposed (14). The Modi Government announced a national lockdown on March 24th 2020 and continued it till May 31st 2020. Along with the lockdown, other preventive mitigation measures like educating about social distancing norms, ensuring safety measures, imposing travel restrictions, isolation and quarantine of the patients and facilitating timely medical aid to the infected person were profusely stressed and implemented by the Government (17).

Despite various alarming and mind boggling projected forecasts by international reputed agencies like WHO and IMF, w.r.t expected corona positive cases, possible deaths and catastrophic impact of covid on India's economic output, India managed to keep its mortality rates at the lowest levels in the world(15). While the strict lockdown measure by the government halted the exponential progress of corona virus in India during the first wave, the economic downturn of lockdown was severely felt across all the sectors of the economy. The complete lockdown leading to halt of production, had a ripple negative effect on the output of agricultural, industrial as well as the territory sector in India. Though the government during the locked down didn't restrict the agricultural activities, yet the controlled as well as sporadic movement of transport and distribution networks crippled the supply chain networks. This led to the unusual hike in the prices of essentials like fruits, vegetables and other grocery items. The industrial production also slowed down and reached abysmally low levels during the lockdown period. The daily wagers and contractual labours without much social security networks were the most affected section of the

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society to undergo the financial distress. The overall rate of decline in GDP of India was (in real terms, adjusted for inflation) 7.3% for the financial year 2020-'21(20).

Relative to its population size, the percentage of infected individuals was low and the percentage of recovered patients was high in India. Complying with the appropriate corona social distancing norms by conscious citizens facility led to the suppression of the virus from becoming a national tragedy for India. The relentless support and unprecedented servitude gestures extended by the doctors, nurses and other frontline corona warriors also helped in containing the pace and deaths due to corona virus in India. According to the Indian Statistical Institute (ISI 2020), the lockdown during the first wave has averted around 20 lakhs cases and 54,000 deaths due to Covid-19, suggesting that lockdown could have acted as a potent social vaccine.

During the end of 2019, when China was busy welcoming and celebrating Chinese new year, the first reported cases of corona virus took place in Wuhan, Hubei province(6). Despite being the country of origin for the pandemic, China differed from other nations in terms of its response mechanism towards Corona virus. Owing to earlier experience of SARS (Severe acute respiratory syndrome) in 2003, China undertook the mapping of genomic sequence of the virus as early as on Jan 10, 2020 and began enforcing stringent measures to counter attack the surging virus. A complete lockdown was announced in the city of Wuhan, the hub of spiralling cases of covid-19. Other cities like Beijing, Shanghai, Hangzhou, Guangzhou, and Shenzhen also underwent strict controlled restricted movements (Leung et.al, 2020). The transmission and intensity of covid-19 during the first wave in China outside Hubei could be controlled due to stringent non -pharmaceutical preventions (Leung et.al, 2020) by the Chinese authorities.

5. 2 Impact of second wave of Corona virus in India and China

After containing the first wave of corona in India through strict lockdown measures and mass scale restrictions, India was able to register the decline in corona cases by the end of June 2020. However, easing of lockdown by the government from June 1 onwards, India reported 3,76,305 positive cases (15). Beginning of unlock from July 1, India's covid-19 tally climbed to 5,66,840 with nearly 66% cases reported in June alone(15).

With the increasing relaxed norms, gradually but firmly the corona cases started peaking in India and by March-April 2021, India underwent one of the most horrendous and unforgettable onslaught of corona in the world. The corona virus mutated itself making it more lethal and barbaric for scores of population in India. The lightning speed of spread of corona in India overwhelmed the already exasperated health sector and its staff, while India gasped for ventilators and dwindling oxygen supplies. Unlike the first wave, corona struck the rural India also during the second wave and wrecked the poorly adequate health system. Unfolding of second wave In India had a debacle effect bringing down the health infrastructure to its knees and India gasping for oxygen.

As per the worldometer, the official WHO dashboard tracking corona cases in the world, the total number of corona cases in India as on 17 July' 2021 were 31,026,829 and the deaths caused by it were 4,12,53. The situation and impact of corona virus was more deadly and horrific during second wave in India. However, the unparalleled support by various countries like U.S, Germany, Russia, Singapore in timely supplying medical aids, pulled India out of the tragic and seemingly never ending strike of corona during the second wave. During second wave many states like Maharashtra, Delhi, Tamil Nadu, Karnataka, Goa, Assam Uttar Pradesh went for more than a month long lockdown to reduce the positivity rates, transmissions and fatality of corona. The state specific measures combating the hotspots of corona infections led to control of corona cases In India by the end of June 2021. Further the vaccination drive in India, being one of the largest in the world, also checked the severity of corona in vaccinated but infected people. As per a report by Niti Aayog, two vaccine doses helped in preventing 95% deaths during second covid wave(16) in India.

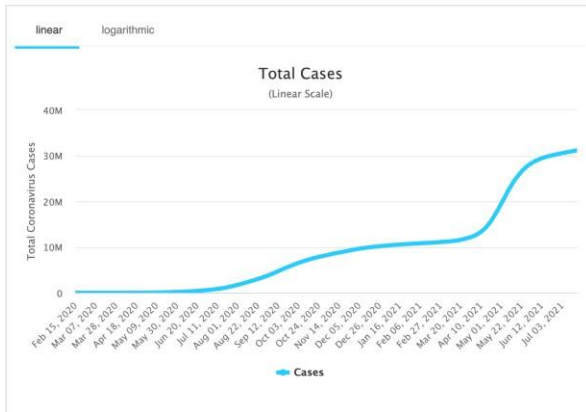
On the other hand, the second wave of Corona virus started surging in Beijing in June 2020 (Wei Tian, 2021). As soon as the first case was traced in Beijing in July'2020, without wasting much time, the Chinese Government sprang into action. The infected person was isolated and all the close contacts made by him during last 14 days along with the traces of the places visited by him were identified and epidemiology studies were ramped by China to stem the onslaught of the virus. Compared to the first wave, China acted swiftly and strongly to the rising cases

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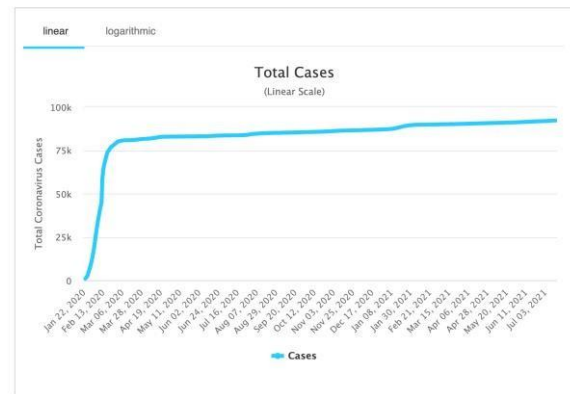
during the second wave. As per the worldometer, WHO corona tracker, the cumulative corona case in China as on 17th July 2021 were 1,19,539, and cumulative deaths were 5,607.

Maintaining social distancing, population behavioural change, and contact tracing (Xu S, Li Y., 2020) of the infected people was swiftly and smartly carried out by Chinese authorities during the second wave. Resultantly the second wave did not unleash its havoc on Chinese population and economy, the way it did on India. In the following four graphs, we have depicted the comparative analysis of India and China w.r.t total corona cases and corona related deaths in these countries respectively. We can distinctively observe the intensity of corona cases and deaths is more severe in India than in China during the second wave. The official reported cases of infected people and deaths due to Corona virus were much less in China than in India.

Total Coronavirus Cases in India



Total Coronavirus Cases in China

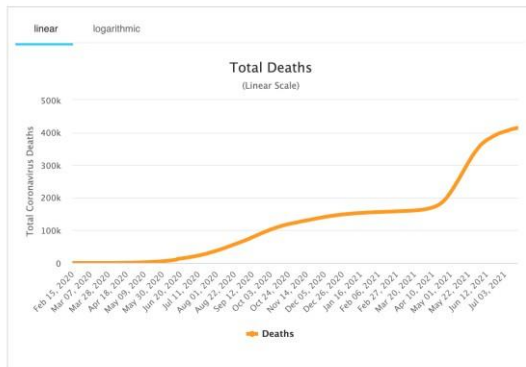


Graph 1-4 depicting India and China Corona

5.3 Strategies adopted by India and China to tackle Corona

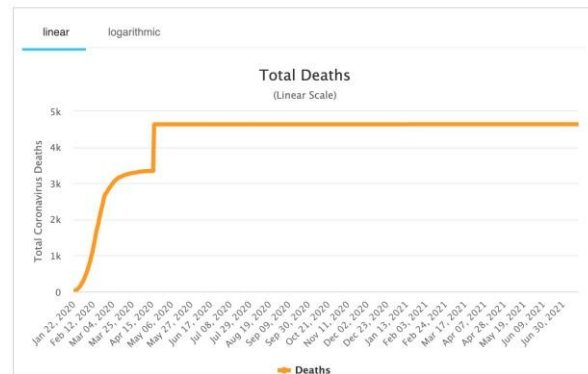
While being under the attack of corona virus, India launched multi faceted approach to handle the crisis by ramping up health care facilities, converting existing schools, offices, hotels into isolation wards, mandating

Total Coronavirus Deaths in India



Sources: www.worldometer.info

Total Coronavirus Deaths in China



thermal screening checks for all national international travellers, investing into R&D labs, introducing mobile testing and proliferating it in rural areas, developing indigenous vaccines, like Covaxin by Bharat Biotech, self corona assessment kit by DRDO. Involving MBBS students to aid the medical staff, facilitating tele-medical services, involving private hospitals to collaborate in vaccination drive, enabled India to tab the mounting corona cases in India.

Apart from strengthening medical services and infrastructure, India also looked after the economically battered economy. The Ministry of Finance, Government of India, (GOI) declared a special economic and comprehensive relief package of 200 billion USD to strengthen and support the economy's fight against Covid-19 during the first wave of corona. The package accounted for nearly 10% of the GDP and put India in the league's of biggies like USA and Japan who rolled out relief packages worth more than 10% of their GDP(19). This package was christened as the *Atamnirbhar Bharat Abhiyan* (meaning self-reliant India scheme) to make India self reliant during the pandemic. The GOI developed quick financial packages for developing laboratories, procuring more testing kits and improving the health service infrastructure in the country. The Indian government primarily devised schemes to support major sectors of the economy including cottage industry, MSMEs, labourers, middle class, and industries.

Some of the noteworthy special schemes by Indian government are as follows:

- a. *Cash transfer measures for the poor:* cash transfer measures were devised to aid farmers, rural workers, poor pensioners, construction workers and low-income widowers for a period of three months.
- b. *Medical cover for corona front line workers:* in order to support the medical expenses of the front line workers, Government offered a medical insurance cover of 5 million rupees per person for nurses, doctors, paramedics, and sanitation workers in government hospitals.
- c. *Free grains to poor:* As part of the Rs 1.70 lakh crore Pradhan Mantri Garib Kalyan Package (PMGKP), the government announced free wheat or rice plus pulses to poor as well as a cash payment to women and poor senior citizens and farmers over a period of three months till June 2020.
- d. *Unemployment insurance cover under the Atal Bimit Vyakti Kalyan Yojana Scheme:* this scheme was devised to provide unemployment insurance to those people who lost their jobs due to shutting down of business during corona times. People who were covered under Employees 'State Insurance (ESI) scheme, could avail this benefit offered by the government.

To continue the financial support to economy, on February 1, 2021, the Finance Minister of India released the Union Budget 2021-22 and made new announcements regarding the government schemes in India. This year, the government has announced the *Atamnirbhar Bharat* package amounting to Rs. 27.1 lakh crores to deal with the impact of coronavirus.

On the other hand, China, the most populous country in the world has remarkably and surprisingly done an astounding job in controlling the spread of Cov-2. While infamous for its draconian and autocratic ways of governance, and being the epicentre of virus, Chinese strategies are seen today as a role model for suppression and mitigation of lethal virus. Following are some of the noteworthy steps taken by the Chinese government to contain the virus:

1. *Heavy reliance on the artificial intelligence(5):*

Various technological developments like artificial intelligence, study of genome breakup of corona virus was extensively undertaken by Chinese scientist. China combined the human acumen with the state of the art technological facilities and infrastructure to understand and decode the anatomy of the virus. Technologies like big data, cloud computing, 5G networks, blockchains were extensively employed by the Chinese government for contact tracing and tracking of virus across China. Drones (10) were used to locate the physical movements of people, warning them for not wearing masks and scolding them for stepping outside(9).

2. *Rapid development and proliferation of health infrastructure:*

The time period taken by Chinese administration in coming forward with the counter measures were nothing short of a miracle. Government built fancang (8) hospitals in few days having in-house capacities of more than 1000 people. These hospitals were demarcated for separating and treating patients with mild to moderate symptoms, strict quarantine measures for corona patients, tele medical services for people, whole hearted participation by the

medical personnel, compulsory mask wearing, promotion of personal hygiene and conducting mass scale testing by laboratories stemmed the exponential transmission of corona in China. China was able to contain the pandemic in nearly three months from its onset.

3. Leveraging the *previous experience with SARS in 2003*: being the first country in the world to experience SARS, the first pandemic of 21st century, Chinese public and authorities had the previous experience of facing, managing and controlling a pandemic. Chinese people have profound faith in the public health administration and the compliance with government diktats and following appropriate covid behaviour was seen as a safety and health measure rather than the attack on individualism.

4. *Easily accessible and free Corona testing for Public*: Chinese government made corona testing free for public and the corona treatment charges not covered by insurance cover of people were also paid by the government.

China has launched a very extensive vaccination drive with an accelerated pace and many big cities in China have already vaccinated 70 percent to 80 percent of their population (18). In order to develop herd immunity, China plans to fully vaccinate 70 percent of its target population by the end of 2021.

However Corona left China gasping for breath and battered its economy by reducing China's GDP by 6.8 per cent in the first quarter of 2020 (13), one of the steepest year-on-year fall ever recorded (13). Chinese government resolved to primarily reboot the main "six priorities": employment, essential livelihood, corporate sector, food and energy stabilisation, consistent supply chains and hassle free government operations. Some of the highlights of the stimulus package offered by Chinese Government are discussed as below:

1. *Infusion of funds by the central bank*: the people's bank of china reduced its projected medium-term lending facility (MLF) rate by 20 basis points to 2.95 per cent, infusing 56.1 billion yuan (US\$7.9 billion) (11) into the banking system.

2. *Giving up of profits by banks to finance cheap business lending*: with the aim to strengthen the companies to combat the financial shock of corona, China's State Council urged banks(11) to give up profits worth 1.5 trillion yuan (US\$212 billion) in 2020.

3. *Tax deferment*: in order to boost the financial stamina of small and medium enterprises, Chinese government postponed the payment of corporate income taxes to be paid by micro and small businesses, as well as self-employed individuals till the end of 2020(12). Large banks were also instructed to increase inclusive finance lending to SMEs by 40%. Payment of VAT was also exempted for various services like restaurants and hotels, tourism and entertainment, and culture and sports.

4. *Welfare support to migrant labour*: with a view to hire more labour force, state funded projects were permitted to increase the wages to the labour to the extent of 15% of investment in the project. This increased limit permitted for payment of sustained wages to the labour.

The stimulus package rolled out by China in the wake up of 2008 financial crisis, proved to be a blessing in disguise as investments by China during 2008 crisis, shaped the infrastructure, manufacturing and state of the art technology. The Corona crisis stimulus is also seen as a drive by China to not only meet the short term urgency but also accord long term stability and prosperity for its country.

6. Suggestions and Recommendations

Today the world is reeling under one of the most challenging and unprecedented threat to its survival. Many European countries like U.k, Germany, France, Spain and others like USA, China and Back home India have already suffered the second wave of Corona virus. Now, the another mutation of corona virus, the Delta Plus has surfaced, igniting the outbreak of third wave, which could be catastrophic for any economy. As per an estimate by WHO, to obtain the herd immunity against any mutation of corona virus, we need to vaccinate nearly 70-80 % of the world population. Following Covid appropriate behaviour, protocols like -wearing of mask, following social distancing norms, sanitisation, avoidance of mass gatherings, sanitisation derive are the need of the hour and ought to be followed by all of us. Further, to not repeat the disastrous impact of corona, both countries should closely track new variants of corona, using real-time epidemiological and sequencing data. Using technological aids like pool testing and wastewater testing should also be rigorously carried out to stop the breeding of infection.

The Covid-19 virus does not make a distinction between the haves and have not. However, the conscious and agile person through mindful behaviour can protect herself from the pandemic to a large extent.

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