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REPORT

ON

CORONA VIRUS: A COMPARATIVE STUDY

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The Centre of Policy Research and Governance (CPRG), India strongly believes that in the 21st century an India deprived of gainful opportunities, necessary for the flourishing of a young and emergent India, will prove to be an impediment in the development of human capital and preservation of global security. CPRG thus works towards providing gainful opportunities in an effort to promote the involvement of young people in policy making and politics.



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NOVEL CORONAVIRUS: COMPRATIVE STUDY

With the birth and growth of a deadly virus, the world is in a state of shock. With Bats being the probable origin of this virus, they are not to be blamed, but it is us humans who are to be blamed who in a very selfish manner mess with nature and this is what nature then does to us. The rapid rise in the cases of coronavirus is indeed appalling and it seems like a phase where mankind has come to a still, it has become stagnant. There is nothing that is in our hands, the vaccine for this deadly virus is yet to be found, the antidote for the virus is the only thing that scientists across the world are craving for. Newspapers, media, social media across the world are trying to highlight the issue with an attempt to reach a mass audience who in their best of abilities can take preventive measures and keep themselves safe.

HISTORY OF CORONAVIRUS

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). This type of a virus has never emerged in the history of mankind and this is the first time that it has come and affected the world at large.

Coronaviruses are zoonotic, meaning they are transmitted between animals and people. Detailed investigations found that SARS-CoV was transmitted from civet cats to humans and MERS-CoV from dromedary camels to humans. Several known coronaviruses are circulating in animals that have not yet infected humans.

SARS-CoV-2 is the name of the virus that causes COVID-19 which stands for Coronavirus disease 2019. SARS and MERS are also coronaviruses which cause severe respiratory infections. They also originated in bats, SARS jumping to humans via civet cats and MERS coming via camels. SARS, first reported in China in 2002, spread to 27 countries, infecting around 8,000 people and killing 700. It spread quickly at first but then died out. MERS, on the other hand, is more tenacious.

It first emerged in Jordan in 2012 and about 2,500 cases have been identified so far. It is more deadly than Sars and has claimed about 850 lives in total.

It wouldn't be wrong to mention that the COVID-19 catastrophe has indeed affected the world at large, but the one thing that is hyped up and that one must understand is that this virus does not always lead to the death of the person. The mortality rate is approximately 2%, and it is the fake rumours that ramped up the panic amongst the people of the world. However, it is important for us to understand that we must take this seriously. The virus is travelling from one body to another at an unprecedented rate and affecting majorly those who have weak immune systems.

SYMPTOMS OF COVID-19

Prior to understanding the impact of this virus, we should understand the symptoms of this disease, so that detection becomes easier and the person can be cured timely. The most dangerous and unique part about this virus is that you don't get the symptoms for 14 days and during that period you come in contact with innumerable people and thereby spread the virus.

Various symptoms are:-

1. The coronavirus is named after the crownlike spikes that protrude from its surface. The virus is enveloped in bubbles of oily lipid molecules, which fall apart on contact with soap.
2. The virus enters the body through nose, mouth, or eyes, then attaches to cells in the airways that produce a protein called ACE2. The virus is believed to have originated in bats, where it may have attached to a similar protein.
3. The virus infects the cell by infusing its oily membrane of the cell. Once inside, the coronavirus releases a snippet of genetic material called RNA.
4. The virus genome is less than 30,000 genetic letters long. The infected cell reads the RNA and begins making proteins that will keep the immune system at bay and help assemble new copies of the virus. Antibiotics kill bacteria and do not work against viruses. But researchers are testing antiviral drugs that might disrupt viral proteins and stop infection.

5. As the infection progresses, the machinery of the cell begins to churn out new spikes and other proteins that will form more copies of the coronavirus.

6. New copies of the virus are assembled and carried to the outer edges of the cell.

7. Each infected cell can release millions of copies of the virus before the cell finally breaks down and dies. The virus may infect nearby cells or end up in droplets that escape the lungs.

8. Most covid -19 infections cause fever as the immune system fights to clear the virus. In severe cases, the immune system can overreact and start attacking lung cells. The lungs become obstructed with fluid and dying cells, making it difficult to breathe. A small percentage of infections can lead to acute respiratory distress syndrome, and possibly death.

9. Coughing and sneezing can expel virus-laden droplets onto nearby people and surfaces. where the virus can remain infectious for several days, infected people can avoid spreading the virus by wearing a mask, but the healthy people do not need to wear a mask unless they are caring for a sick person.

IMPACT OF COVID-19

The outbreak was first identified in the city of Wuhan, Hubei, China in December 2019, and was recognized as a pandemic by the World Health Organization (WHO) on 11 March 2020.

The Coronavirus impact on Import

China has one of the largest shares of India's import basket

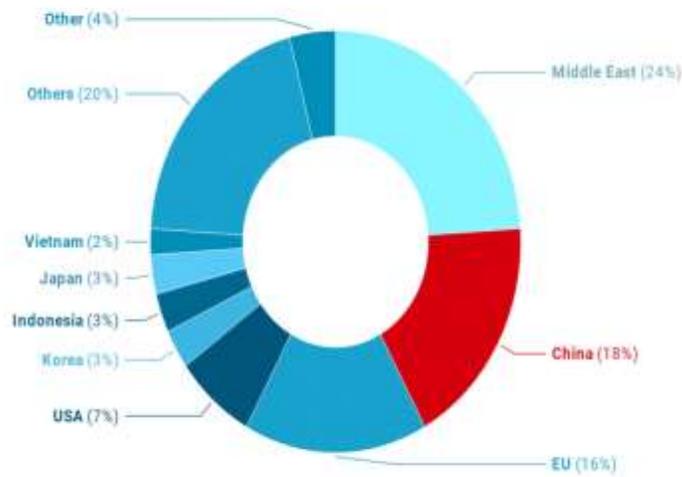


Chart: Dipu Rai • Source: Directorate General of Foreign Trade (DGFT), CRISIL Research

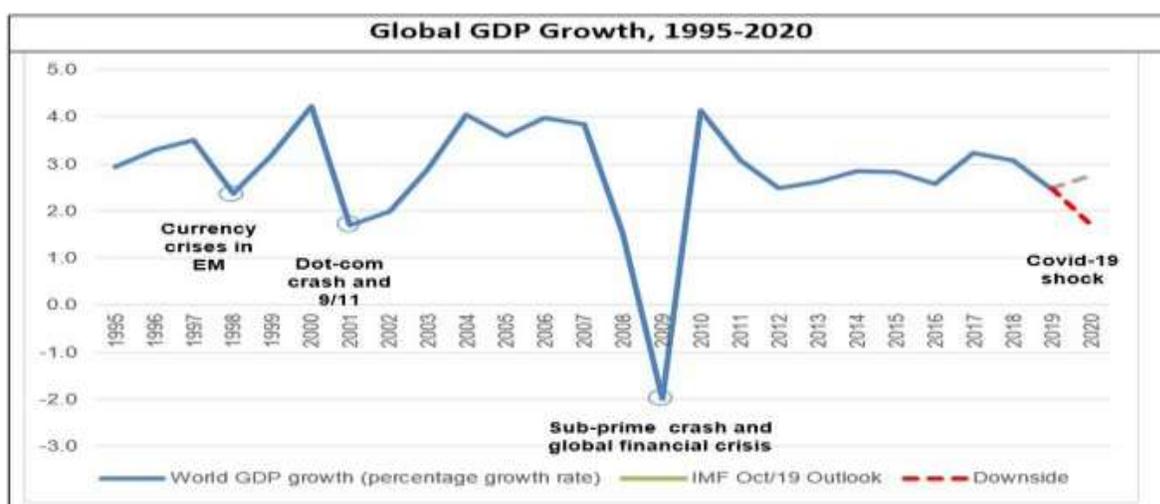
India imports electronics, consumer durables and auto components and pharma bulk drugs. About 18 per cent of India's merchandise is being imported from China. India is highly dependent on China for electronics components and consumer durables. About 67 per cent of electronic components and 45 per cent consumer durables are imported from China

After first being reported in China, the disease is now in more than 100 countries around the world, spreading across Europe, the Americas and Asia. Italy has also seen a large number of cases, leading the authorities to impose a lockdown in the north of the country. The disease has also spread to the Middle East, with Iran particularly affected. According to data on the first 44,000 cases released by the Chinese authorities, 80 per cent of cases are mild. In roughly 14 per cent of cases the virus causes severe disease, including pneumonia, and shortness of breath. In about five per cent of patients it is critical, leading to respiratory failure, septic shock and multiple organ failure.

According to the WHO, the death rate in Wuhan is two to four per cent, whereas in the rest of China and the world it is around 0.7 per cent. It is unclear why the death rate is higher in Wuhan, but it may be because the health services there have been overwhelmed by patients. Men are more likely to have a severe form of the disease, as are people with underlying conditions such as diabetes or high blood pressure.

1. In china, covid -19 largely contained in hubei province with 84% of 80924 cases from there.
2. After china,Europe is worst affected. 46% of 32778 cases outside china were reported in Europe.
3. 7 out of every 10 confirmed cases outside china are from three countries i.e. Italy, South korea and Iran which is followed by France, Germany Spain ,Japan and US.
4. From feb 23, new cases reported in china are less than 1% of the already existing cases in South korea, new cases are increasing at a rate which is less than 10% of existing cases since March 5. The virus is however rapidly spreading in Italy, France and Spain.

Some countries have taken strict measures to ensure safety that have severe implications for the economy. With its health system overwhelmed, the Italian government ordered shutting down the retail economy and quarantining the entire country. Meanwhile, although Germany has had very few coronavirus deaths so far, the number of infections is now skyrocketing. In response to the crisis, the German government has introduced a short-time work allowance and granted generous credit assistance, guarantees or tax deferrals for distressed companies. The US president, Donald Trump, has declared a national state of emergency. Congress has approved an \$8.3bn (£6.7bn) emergency programme to fund efforts to contain the epidemic.



SOURCE- <https://news.un.org/en/story/2020/03/1059011> Accessed on 18 March 2020

COMPARATIVE STUDY OF PREPAREDNESS OF DIFFERENT COUNTRIES

GERMANY

Germany is a parliamentary and federal democracy. Its constitutional bodies are the Bundestag, the Bundesrat, the Federal President, the Federal Government, and the Federal Constitutional Court.

Being a rich and a prosperous country, Germany itself could not remain unaffected with this global pandemic. Germany reported its first case on 27th January 2020 and from then till now it has reported approximately 16,000 cases and the death toll reaching to 44.

Like every other country Germany has tightened its border checks in order to curb the coronavirus spread. This decision came after the cases started rising in all of Europe. All the events were cancelled by the government. People were advised to work from home. All the states have cancelled or postponed large public events and discouraged gathering of more than 1000 people. Border control was established on its frontiers with Austria, Switzerland, France, Luxemburg and later on 18th March restriction was expanded to include the flights coming from there. Travelers from Italy, South Korea, Japan and Iran will need to disclose their health status upon arrival. Also several sporting events like Bundesliga, it is said will be played behind closed doors.

CANADA

The politics of Canada function within a framework of parliamentary democracy and a federal system of parliamentary government with strong democratic traditions. Canada is a huge country and another badly affected country of this pandemic. As the coronavirus pandemic spreads in Canada the government has stepped in to introduce containment measures and hand cash payments to struggling businesses and workers. Canada as per the recent reports have approximately 900 cases and the death toll has reached 12. Canada bordering with the US has indeed done a good job in curbing this deadly disease.

Canada's response is based on plans and guidance related to pandemic preparedness. Its plan is based on collaboration, evidence informed decision making, proportionality, flexibility, precaution, ethical decision making. These were the guiding principles after the lessons that were learned after the 2003 SARS outbreak.

A Public Health Agency of Canada was created to monitor the disease outbreak. Chief Public Health Officer has been appointed by the Government of Canada. To enhance the quality of treatment a National Microbiology Laboratory has been established. And Canada has also collaborated with the World Health Organization to curb the disease.

ITALY

The Government of Italy is in the form of a democratic republic, and was established by a constitution in 1946. The worst affected country after China is Italy. Surprisingly, recent reports suggest that Italy has crossed the death toll of even China where the disease initially originated. First case of coronavirus was recorded on 20th February 2020 and since then it has spread like a domino effect.

There has been a lockdown in Italy in order to prevent further spread of the disease. Those that were allowed out were told to stand at least 3 feet apart to maintain the “social distancing” necessary to help stop the spread of the virus. Italy has nearly 12,500 cases of coronavirus. Individuals who defy the lockdown could face up to three months in jail or a fine of \$234. The new rules prohibit inmates from having visitors or day releases, which set off protests at 27 prisons throughout the country. Most of the countries have banned the entry of travelers from Italy.

UNITED STATES OF AMERICA

The USA has a federal form of government with power divided amongst the state and the centre. The federal republic comprises 50 states.

The country has had more than 14,000 cases with nearly 200 deaths since the first time it entered the country on 20th January 2020. Like every other country, the USA has also imposed a ban on people coming from countries like China, Italy etc. to prevent the spreading of the virus.

New York set up the country’s first “containment area” around one of the largest clusters of cases in the U.S, colleges have told students not to return to campus this spring, and the Democratic presidential candidates have canceled rallies in Ohio. President Donald Trump asked people to avoid gathering more than 10 people. The effects of the virus can be catastrophic as the country might face another recession. No quarantine ha or curfews yet been imposed on the people

INDIA

The nature of governance has been taken from Canadian model however India has a quasi-federal structure of governance.

The efforts taken by India to curb this pandemic is indeed commendable. Henk Bekedam the WHO representative to India said that, "I think the commitment of the Indian government from the top level has been enormous, very impressive. I am very impressed that everyone has been mobilised". India's first case of coronavirus was detected on 30th January 2020, which initially created a panic but the positive by the government to avert the same is worth an applause. However as of 20th March 2020 India has 241 positive coronavirus cases, over 6,700 contacts are being monitored and there have been 4 deaths.

India pledged \$10 million toward a Covid-19 emergency fund and said it was putting together a rapid response team of doctors and specialists for the South Asian Association for Regional Cooperation (Saarc) nations as part of an initiative led by Prime Minister Narendra Modi. This shows the selfless nature of Indian government that it also showed support to its south asian neighbours. Apart from this, on 19th March 2020, PM Modi addressed the people and imposed a Janta Curfew to curb the spread of the deadly virus and urged the Indians to follow the same.

On 9th March, airports in India started stringent screening to check spread. States like Kerala have also been appreciated worldwide for its health care facilities. Kerala also started screening at the railway stations. States have imposed Section 144 of CrPC which prohibits gathering of more than 4 people, in order to promote social distancing which was also the main agenda of PM Modi's speech. States like Gujarat have a lockdown. Schools, colleges and any other place of public gathering have been shut down,

We must also appreciate the efforts of the Kejriwal-led AAP government who are in the forefront to stop the menace. They've shut all the schools, colleges, restaurants etc. Disinfection of buses, metros take place on regular bases. Adequate medical facilities, beds for patients have been made available. Work from home is promoted and also during the self quarantine period all permanent and contractual employees will be paid.

COMPARITIVE STUDY

PARAMETERS *USA*

INDIA

CANADA

*TYPE OF
GOVERNMENT
WHEN
OUTBREAK
HAPPENED*

FEDERAL	QUASI FEDERAL	FEDERAL
The first U.S. case involving a 35-year-old man who had traveled to Wuhan, China, before returning to Washington State. He was confirmed to have the virus on Jan. 20, 2020. Since then, the virus (which causes the disease COVID-19) has spread to almost every state, with new cases emerging every day. The virus has now hit all 50 U.S. states.	On 30 January, the country's first case was confirmed in a student who had returned from Wuhan University to Kerala.	On January 25, Canada's first case was confirmed in a traveller who had flown to Toronto from Wuhan by way of Guangzhou.

*PREVENTIVE
MEASURES
TAKEN*

On Friday, January 31, Delta, American and United announced they will temporarily suspend all of their mainland China flights in response to the coronavirus outbreak. On January 17, the CDC announced that 3 airports in the United States would begin screening incoming passengers from China: SFO, JFK, and LAX. Other 2 airports were added subsequently, and on January 28, the U.S. Department of Health and Human Services (HHS) announced that 15 additional U.S. airports (bringing the total to 20) would begin screening incoming travelers from China. The Trump administration released new guidelines on Monday to slow the spread of the coronavirus, including closing schools and avoiding groups of more than 10 people,

The government has invoked powers under The Epidemic Diseases Act, 1897 to enhance preparedness and containment of the virus. With COVID-19 being declared a notified disaster, the State Disaster Response Fund, constituted under Section 48 (1) (a) of the Disaster Management Act, 2005, is now available with state governments for response measures. Central ministries along with states/UTs have taken urgent steps to strengthen community surveillance, quarantine facilities, isolation wards, and ensure availability of adequate personal protective equipment (PPE), trained manpower and rapid response teams for management of COVID-19. Addressing the nation, the Prime Minister, Mr Narendra Modi has urged for resolve and restraint and adopting social distancing. He has also asked fellow citizens to

On January 17, the Canada Border Services Agency (CBSA) implemented signage in the Montreal, Toronto, and Vancouver airports to raise awareness of the virus, and had added a health screening question to the electronic kiosks for passengers arriving from central China. There are no direct flights from Wuhan to Canada. On March 14, Canada recommended against international travel, and advised those returning from outside of Canada, except for essential workers (such as flight crew), to self-isolate for 14 days. On March 18, federal health minister Patty Hajdu announced that the government had signed an interim order to speed up access to COVID-19 test kits that will allow provincial labs to increase testing. The test kits are made by US-based Roche Molecular

discretionary travel, bars, restaurants and food courts.

follow 'Janata' curfew (voluntary self-isolation) on Sunday, 22 March 2020 from 7:00 AM to 9:00 PM. Statewise measures like closing of schools, temples and public places is being observed.

Systems and ThermoFisher Scientific. theresa Tam, Chief Public Health Officer of Canada and head of the Public Health Agency of Canada (PHAC), said on March 19 that Canada will not know for two or three weeks if country-wide social distancing efforts have curbed the spread of COVID-19

<i>NUMBER OF CASES</i>	14366 confirmed cases	The coronavirus cases in India rose to 195	A total of 725 cases of COVID-19 have been reported in Canada as of March 19, 2020 at 9:30 AM EST
<i>NUMBER OF DEATHS</i>	217 deaths due to coronavirus COVID-19 in the United States.	4 Deaths	Ten deaths have been reported.

<i>PARAMETERS</i>	<i>ITALY</i>	<i>GERMANY</i>
<i>TYPE OF GOVERNMENT</i>	UNITARY STATE	FEDERAL
<i>WHEN OUTBREAK HAPPENED</i>	The first cases of COVID-19 in Italy during the 2019–20 worldwide pandemic was confirmed on 31 January 2020, when two Chinese tourists in Rome tested positive for the virus. One week later an Italian man repatriated back to Italy from the city of Wuhan, China, was hospitalised and confirmed as the third case in Italy.	On 25 February, a 25-year-old man from Göppingen, Baden-Württemberg, who had recently returned from Milan, Italy, tested positive
<i>PREVENTIVE MEASURES</i>	The Italian government has taken the unprecedented measure of limiting movement for 60 million people in an effort to contain the spread of coronavirus. Schools and universities as well as public venues, including cinemas, theaters and	Germany has a common National Pandemic Plan, which describes the responsibilities and measures of the health care system actors in case of a huge epidemic. Epidemic control is executed both by the federal authorities such as Robert Koch Institute and by the

gyms, will remain shut from Tuesday morning until April 3. Professional sports events, including Serie A football matches, are also suspended.

Meanwhile, restaurants and cafes must observe a 6 p.m. curfew and large gatherings, including those outdoors, will be forbidden.

German states. The German states have their own epidemic plans. The national plan was extended for the handling of the ongoing coronavirus outbreak as of March 2020. Four major targets are included in this plan:

1. reduce morbidity and mortality
2. ensure treatment of infected persons
3. upkeep of essential public services
4. short and accurate information for decision-makers, media and public

The plan has three stages which might eventually overlap:

1. containment
(circumstances of dedicated cases and clusters)
2. Protection
(circumstances of further spreading infections and unknown sources of infections)
3. mitigation
(circumstances of widespread infections)

Germany has not set up border limitations or common health status checks at airports so far. Instead - while in the containment stage - health

		authorities are focusing on identifying contact persons who are put in personal quarantine and are monitored and tested. Personal quarantine is overseen by the local health agencies.
<i>NUMBER OF CASES</i>	The total number of cases in Italy rose to 41,035	There were 13,979 coronavirus infections in Germany
<i>NUMBER OF DEATHS</i>	The number of deaths in Italy reached 3,405 on Thursday	Germany had registered 42 deaths

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