Chapter Six – Global Best Practices

COVID-19 had a long-lasting impact on the normalcy of the countries that was being followed around. From tremendous changes in the health infrastructure to creation of more and more virtual spaces – coronavirus could be marked as the turning point of the 21st century.

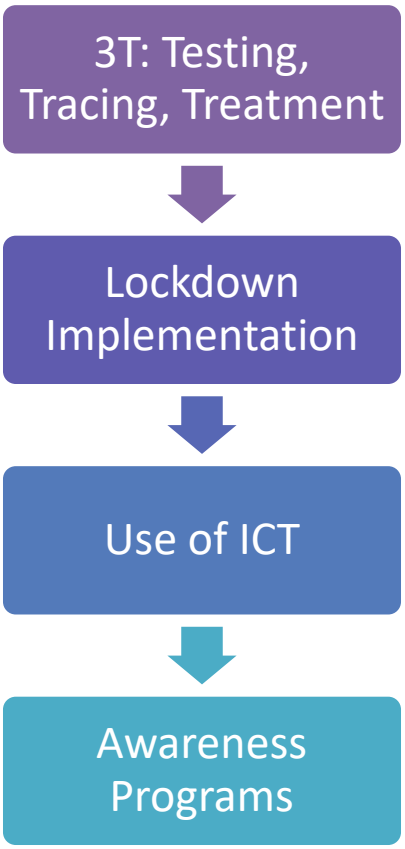
According to various national and international reports such as that of the World Health Organization (WHO) the study has been done on the global impact of COVID-19 on various pillars of the society. Health and medical infrastructure, economy, employment, poverty and social well-being were radically impacted in the year 2020 – millions of lives were changed overnight resulting in deaths because of virus, losing employment, impact on social and mental well-being, therefore, resulting in suicides. The battle wasn't

just limited to the virus's physical impact but the struggle was to come out of this pandemic situation with as less damage as possible and in a speedy state.

The virus all-around the world was same, however, the strategy taken up by the authorities were different all-around the world. In this chapter forth, the study shall focus upon the implementation and strategies as carried out by different national authorities to contain the spread of virus in their respective countries. To focus upon global best practices countries like New Zealand, South Korea and Vietnam have been picked upon on the basis of declining number of COVID-19 cases along with robust strategies to contain the virus.

Pillars to Study Upon

In order to understand the best global practices, the chapter delineates the study further upon four pillars – 3T (Testing, Tracing, Treatment), Lockdown Implementation, Use of ICT and Awareness Programs.



New Zealand

In response to the ongoing COVID-19 pandemic, the national authorities of New Zealand decided to go "hard and early" on the virus. The first case to be reported was on February 28, 2020 and as of today the country has fought the virus twice resulting in only two thousand and ninety-six cases and twenty-five death only in a population of five million citizens. The pandemic peaked in early April, with eighty-nine new cases recorded per day and nine hundred twenty-nine active cases.

- ### 3T: Testing, Tracing, Treatment

In order to contain the virus, the very first step was to have effective means of testing, tracing and treatment of the virus. For the same, the Ministry of Health, New Zealand as a response established National Health Coordination Centre (NHCC) under which health practitioners are supposed to report any suspected cases as per the Health Act 1956. Further implementation process to contain the spread of the virus was done via non-pharmaceutical interventions. As soon as the first case was reported the authorities made sure to work upon the implementation process in two parts – one, focus on random sampling and testing from the same neighborhood the patient belongs from to assess the further spread. Two, once testing was done a transmission chain was worked upon to further assess the spread of the virus. An innovative model as adopted by the New Zealand encouraged people to scan QR codes placed at different locations to create a repository of their movement. Early identification of the transmission chain ensured future possible spread of the virus, finding similar existing patterns and planning of future isolation and quarantine facilities. The whole objective of vigorous testing measures was to ensure future predictions of the spread of the virus and prepare the country for upcoming cases through early preparedness of testing and quarantine facilities.

- ### Lockdown Implementation

New Zealand ensured safety of its citizens with strict guidelines and responses. Rather than implementing an overnight lockdown, the authorities started giving out alerts and notifications to general public to the spread of COVID-19 and implemented small steps towards lockdown. Initially alerts were rolled wherein elderly were specifically asked to stay-at-home and take proper precautions against the virus – such as hygiene and washing of hands. The government ensured to keep its citizens updated with relevant information about the pandemic. Similar to fire drill alerts, lockdown alerts were implemented ranging from level 1 to level 4. On March 18, New Zealanders who were overseas were requested to travel back home observing the upcoming pandemic, and were then put into mandatory 14-day isolation. Following days this ban was then made to be stricter however certain exemptions were made considering people with dependable family members or those who are dependent members to return back with a 14-day

mandatory isolation. In the cases of local COVID-19 positive case, the neighborhood or the district from where the patient was tested positive was mandated to go into isolation and lockdown with strict policies or curfew. Further protocols, involved of canceling of social gatherings indoor and outdoors, both. Intra-national travel ban was further imposed and only health workers and humanitarian workers were allowed. Nation-wide lockdown was implemented with institutions, schools and work-places being shut-down. Categorization of essential and non-essential services was made – wherein non-essential services were permanently banned during the lockdown with zero exemptions.

- ## Use of ICT

Information and Communication Technology has been the need of the hour for a very long while. Especially in the case of the COVID-19 pandemic – ICT has established as one of the rescue models to trace the spread of the virus. Going hard and harsh on the virus, the government authorities of New Zealand ensured to implement and use technology wherever possible to eliminate human touch. From data collection, tracing of the virus, transmission of the virus to awareness programs – role of ICT in the fight against pandemic was evident. A strong emphasis was levied upon establishing Integrated Data Infrastructure or IDI. The goal was to engage with citizen's lifestyle and movement to track the likeable route of spread of the virus and predict future course of actions. On May 20, 2020 the government also issued NZ COVID TRACER App available on Google Play and App store – the app allows users to scan their QR codes at businesses, public buildings and other organizations to track where they have been for contract tracing purposes.

- ## Awareness Programs

One of the highlights of the New Zealand model was the awareness initiatives that were taken into place by the authorities. In order to have a fluent communication system a database was prepared of the citizens i.e., categorization of people according to their work profile. From students and working officials to home-makers national database was collated. Daily reminders and updates were issued by the government through local channels, social media and notices to offices and educational places to reenforce the notices, therefore, ensuring a double-check on the communication.

South Korea

South Korea was one of the first countries other than China to record a Covid-19 case in January 2020. The country had experienced a dramatic increase in confirmed cases in the early stages of the global pandemic, however the government was able to contain the spread. The steep decline of new cases in South Korea has been credited to the implementing aggressive strategies that the Korea Centers for Disease Control and Prevention (KCDC) had put in place since the first patient was confirmed on the Jan 2020.

- ### 3T: Testing, Tracing and Treatment

The South Korean healthcare system is run by the Ministry of Health and Welfare which aims to provide cheap care to all nationals and foreigners who contribute to the National Health Insurance scheme. The National Health Insurance Scheme is compulsory for each household and the premium is determined by the combination of household income and assets. In the past decade, the national health care system has provided healthcare access to the entire population and has been ranked as one of the most efficient health care systems in the world. Korea Centers for Disease Control and Prevention (KCDC) jointly with medical professionals developed a series of innovations such as 1) Full contact tracing and rapid testing with a 12 h turnaround and 10 min movement tracking systems, 2) transparent disclosure of all contract tracing data to the public through a central database, 3) Drive-Through and Walk-Through testing methods, and 4) a 4-tier patient severity index and community treatment isolation centers. Korea moved from the 4th in the world for total confirmed cases in March down to 76th in August. By early February, there was a rapid expansion of testing labs, with turnaround time in 24 hours, as well as "need-based free testing of asymptomatic people" in the large city of Seoul. They even overhauled hospitals, with designated infectious disease hospitals for COVID-19 and community treatment centers for mild cases.

- ### Lockdown and Implementation

South Korea has brought the transmission of COVID-19 under control through national social distancing policies with their “test, trace, isolate” strategy. As a result, it managed to avoid a nationwide lockdown and extensive travel restrictions by devising a comprehensive public health strategy early in the COVID-19 outbreak, as well as voluntary social distancing measures. The public was expected to abide by a code of conduct, including staying away from "enclosed, crowded spaces with poor ventilation." They were advised to avoid the three Cs: crowded places, close-contact settings, and confined and enclosed spaces.

Mask wearing was advised not only for indoor settings, but outdoor settings where it was impossible to keep a 2-m (about 6 ft.) distance. The country also recommended avoiding activities in public that cannot be done with a mask on, such as eating, singing, and cheering out loud.

There were no widespread travel restrictions, but the country tested all incoming travelers, including asymptomatic people, and even if the results were negative, all travelers were required to quarantine for 14 days, as of April 1. There were detailed recommendations for gatherings, sporting events, schools, and companies. The country also implemented enhanced infection prevention measures, including a ban on gatherings of 50 people or more indoors and 100 or more outside.

- ### Use of ICT

Major role in containing the virus in South Korea has been of information and communication technologies. Especially with the usage of smart tracking system for testing and tracing of the patients, significantly reduced time for epidemiological investigation. (AI) played a significant role in supporting researchers and healthcare professionals in the diagnosis and screening of patients with severe symptoms, as well as developing appropriate responses based on a thorough analysis of the situation on the COVID-19 spread. In addition, famous "Walk-Thru" testing station allows quick collection of samples as subjects walk through the station with minimal contact.

A COVID-19 diagnostic kit was developed by a Korean biotech company using ICT, such as AI and high-performance computing. It quickly became widely available and played a major role in eliminating uncertainties in the early stages of the viral spread.

- ### Awareness Programs

South Korea's model was heavily based on the concept of "transparency" with its citizens, therefore, the reason of no-lockdown policy in the country. The government officials made sure to use ICT spaces for awareness programs as much as possible. Furthermore, the officials made sure to have daily briefings on the update of the condition of COVID-19 in the country and the subsequent plan of action that was supposed to followed. Since misinformation was in such a flow, daily briefings by the authorities helped the citizens to get factual information from reputable sources.

Vietnam

Vietnam's first case of COVID-19 was reported on January 23, 2020. The patients were a man from Wuhan, China, and his son, who were based in Vietnam. Vietnam has a history of successfully managing pandemics: it was the first country recognized by the World Health Organization (WHO) to be SARS-free in 2003, and many interventions Vietnam pioneered during the SARS epidemic are being used to respond to COVID-19. Similarly, its experience with epidemic preparedness and response measures may have led to greater willingness among people in the country to comply with a central public health response.

- ## 3T: Testing, Tracing and Treatment

On May 1, a hundred days into the outbreak, Vietnam had confirmed just 270 cases despite extensive testing, with no community transmission since April 15. To date, no patients have died from COVID-19 in Vietnam. In late January, the Ministry of Science and Technology hosted a meeting to encourage the development of diagnostic tests. Starting in early February 2020, publicly funded institutions in Vietnam developed at least four locally made COVID-19 tests. Testing capacity also ramped up quickly, from just two testing sites nationwide in late January to 120 by May. As of May, sixty-three sites were able to confirm testing (i.e., analyze the results of any given test). The country decided on a strategy of using testing to identify clusters and prevent wider transmission. When community transmission was detected, the government reacted quickly with contact tracing, commune-level lockdowns, and widespread local testing to ensure no cases were missed. Vietnam's contact tracing strategy stands out as uniquely comprehensive—it is based on tracing degrees of contact from F0 (the infected person) through F1 (those who have had close contact with F0 or are suspected of being infected), F2 (close contact with F1), and F5.

- ## Lockdown and Implementations

Vietnam implemented mass quarantines in suspected hot spots of the virus. The country entered a nationwide lockdown on April 1. Initially, the lockdown was set for 15 days, but it was extended to 21 days. The first of many steps was to implement closures and limit mobility for citizens and international travelers. Most other countries waited to make these types of decisions until numbers were much higher. In early February, Vietnam began its practice of placing international arrivals from COVID-19 affected countries in large government-run quarantine centers for 14 days. Vietnam began using the centers for Vietnamese arrivals from China on February 4 and expanded the practice to Vietnamese arrivals from South Korea on March 1 and for all international arrivals beginning March 20–22. International flights were also diverted away from airports still used for domestic travel.

- ## Use of ICT

On March 10, the Ministry of Health worked with telecom companies to launch NCOVI, an app that helps citizens put in place a "neighborhood watch system" that complements official contact tracing efforts and may have helped to slow transmission of the disease, although the app has drawn criticism from some privacy advocates. NCOVI includes a map of detected cases and clusters of infections and allows users to declare their own health status, report suspected cases, and watch real-time movement of people placed under quarantine.

- ## Awareness Programs

The Vietnamese government communicated in clear, strong terms about the dangers of the illness even before the first case was reported. On January 9, the Ministry of Health first warned citizens of the threat; since then, the government has communicated frequently with the public, adding a short prevention statement to every phone call placed in the country, texting people directly. Furthermore, the heavy usage of social media in Vietnam wherein they constitute for 64 million active Facebook users and local social media app, Zalo – made mass communication an easy channel.

The country also made use of the entertainment industry, i.e. in February, the National Institute of Occupational Safety and Health released "Ghen Co Vy," meaning "Jealous Coronavirus," a well-known pop song given new lyrics and turned into a handwashing public service announcement. The institute asked Khac Hung to rewrite the lyrics and dancer Quang Dang to choreograph dance moves, which ultimately spearheaded a dance challenge on Tik Tok. IMarch, the Ministry of Health sent ten SMS messages to all cell phone users in the country. Throughout these communications, the government constantly used the motto: "Fighting the epidemic is like fighting against the enemy."

Chapter 7: Way Forward and Recommendations

As it is clearly seen that spiraling and pervasive COVID-19 pandemic has distorted the world in a very unpredictable and ambiguous terms yet India is able to slow down the impact of the virus upon itself as compared to other developed and developing countries around the world. Hon'ble Prime Minister of India recently in last week of November addressed the Nation and State Chief Ministers regarding the nation's fight against the virus. It was evident from the PM's speech that India is putting its best foot forward in combatting this pandemic. The pandemic has shown us the real meaning of Fraternity and Federalism which exists at its best in India.

People & Administration of India have learnt a lot during this pandemic whether it is the change in behaviour of an Individual or change in the working structure of the administration, everything has been reformed during this last 8-10 months. Though it was an unexpected moment for India to tackle an invisible warrior which has already hit the world hard, yet we didn't hold back and fought the battle. Resourcefulness of our people with timely and right kind of support from the states and civil societies, made our country very capable of building resilience future for itself.

This event can be called as **"Black Swan Event"** and has shown us the strength, weakness of our country and opportunity & threat which could be evaluated from this event. Based on the study of

survey and questionnaire conducted by the IIPA with official of Central, States, UTs and other Nodal officers working in the field during the time of Pandemic, as past is no longer a good guide for future the chapter proposes a set of observations and recommendations which are bifurcated into two parts namely "**MHA Specific Recommendations** & **Collaborative Ministries Recommendation**" are mentioned as:

A) MHA SPECIFIC RECOMMENDATION

1. **Establishment of Hi-Tech Disaster Management Control Room:** Though MHA Control Room has done a tremendous work in managing this humongous and heterogeneous population by providing them adequate and timely assistance, yet it was observed that there is a need to establish a well-equipped Control Room comprising of representatives of each Central Ministry and officers from State Ministries which could act as a bridge between Inter & Intra Ministries and Centre State & Inter State.

2. **National & Inter-State Migrant Register:** As it is seen that the issue of migrant labours emerged as one of the reasons for spike in positive cases of COVID-19 due to under estimation of the number of migrant population or we can say non availability of data related to the migrant workers working in different parts of the country. By assessing the situation from this pandemic, it is suggested that government should mandate a dedicated register (online/offline) comprising of the data related to the number of migrant population of each state and of India as a whole. This would act as data base for the administration to deal future pandemic and for coming up with informed policy making.

3. **Capacitating of the Control Room officers;** A robust training of capacity building should be conducted every quarter for these officers for better understanding of the guidelines and laws made related to the disaster. Apart from providing capacity building workshops to the officials of Control Room and other essential ministries/departments it is also suggested that Grass Root Awareness Programs should be conducted with well-trained trainers and educators at rural and urban

areas. Special Human Resources should also be trained for Disaster and other Epidemic or Pandemic situation so that regular work does not hamper as during the pandemic officials of various departments got shifted in providing the emergency services which hamper the regular office work which has its own importance in running of the administration.

4. **Capacity Building amongst Centre State, Inter State and International:** Disaster Management requires a great amount of coordination between different stakeholders and it can be managed better when the whole Territory of a country comes on a same line and work systematically. This requires large and efficient capacity programs which would include officials of various departments and should be a good blend of PPP model. This program should include a short term medical training to all the officials of government, private institution. It would be beneficial if there is a mandatory course in education system related to the Disaster Management and Medical Training to be better prepared for future pandemic. It is also to be noted that there is a wide scope in capacity building programs amongst various international grouping like SARC, BIMSTEC, SCO & IORA, we should embrace knowledge and experience sharing as an essential element of building resilience as risk is global but resilience is local which means every state has their own expertise and unique way of dealing a pandemic and other disaster situation which can be learnt by other countries for better management of any hazardous situation in future.

5. **Be Future Ready by Creation of National Pandemic Authority:** COVID-19 has shook the world in many ways. No country in the world was ready to deal such kind of pandemic for such a long time. Every administration tried their best to fight this pandemic as early as possible and has devised various techniques and policies to deal with it yet COVID-19 took a lot from this world. By looking at the situation in India, it is suggested to form a new Authority that may be christened as National Pandemic Authority comprising of various officials and personnel from various

areas like health, environment, disaster, infrastructure, transportation, and other essential services in order to be future ready to deal with any kind of pandemic in future, if occurs.

6. **Elevation of Disaster Management Cycle in a Holistic Manner:** As per the 15th Finance Commission Report 2020-2021, India for the first time has predictable way of financing all aspect of a Disaster Risk Management Cycle. We now have a dedicated resources for entire complement of Disaster Mitigation, Disaster Preparedness, Disaster Relief & Rescue and Disaster Recovery & Reconstruction. It is an un-parallel opportunity to pursue Disaster Risk Management in the country in a holistic manner. It is important for us to ensure that utilization of these funding window is done in a meaningful manner.

7. **Revisit Disaster Management Act 2005:** As this pandemic has shown the country an unknown type of disaster which has impacted the whole nation on a large scale. There is a need to revisit the DMA 2005 and incorporate the necessary lessons learnt from this pandemic.

B) COLLABORATIVE MINISTRIES RECOMMENDATIONS

1. **Provisioning of Resilient Infrastructure:** To build stronger resilient infrastructure including social, economic, and environmental sector and sustainable resource management. A focused approach should be adopted for financial system with equitable access to saving, credit, finance & insurance, and social protection for those who are into the informal economy. Developing Strong Feedback mechanism and investing in stronger modular system at the local level.

2. **Internet Facility providers/ Common Service Centres (CSCs):** India is digitally advancing as it is noted that whole education system has shifted from offline mode to online, culture of work from home became a trend because of the availability of digital connectivity and other necessary logistics. But when it came to the issuance

of pass, there was a hue and cry in discrepancies of various pass formats of different states. District Magistrate office was overcrowded when the news of issuance of pass flashed among the people, everyone from literate to illiterate rushed to the DMs office to get the passes for movement. By looking at the situation it is recommended that Internet Facility Provider or CSCs either private or public should be included and given training to apply for passes online or other related activities, this would reduce the burden on DMs office and would ease the route for the people by applying in a faster way. A good example can be seen in the scheme of PMGDISHA.

3. **Need of Dynamic Risk Assessment Tool**: There is a need for dynamic risk assessment tools in line with or commitment in scientific evidence-based approach to mitigate and management of impact of COVID-19. Fostering the use of new analytical tools and techniques to simulate the dynamics of crisis using network & agent based to better understand how shock emerges and propagate whether a pandemic, financial crisis, collapsing production networks, environmental shocks, or social breakdown.

4. **GIS based office hour flexibility in metro cities:** As every institute has an importance in elevating the economy of the country and during the time of pandemic the first and foremost thing which need to be taken care of is the health and lives of people. As it is seen that Central Government requested the State Governments and ordered all its offices to work at half of the total strength in alternative manner during the pandemic in order to avoid large gathering at workplace. By assessing the situation it is suggested that a GIS based model should be developed which would allow the administration to assess the workload of different offices and allowed the timing of reporting of different staffs at different time. This will not only reduce the transportation burden but will also bring much needed respite from air pollution besides maintaining Corona protocol. The individual would come to the office at allotted time in allotted public transport.

5. **Establishment of PIN Code based info manager:** Not all people in India have access to smart phone and other gadgets. In the time of pandemic and disaster, news and official announcement related to Relief plays an important role as this facilitates the dissolving of the grim situation amongst the people and by providing them with adequate information. As majority of masses have normal phones, so it is recommended that a PIN Code based Information manager system should be developed where in an individual would be required to just SMS his/her PIN code to a designated number and would get back a message with the related information to relief packages and other things. This would help in ironing out the much-pronounced digital divide.

6. **Home Delivery of Public Distribution System:** As social distancing was seen as a main precaution in order to remain unaffected from the COVID-19 yet at various places it was observed that huge number of people gathered at a place violating the norms of social distancing. It is suggested that PDS should be converted to the Home Delivery bases PDS where in despite going to buy ration at PDS shop, the same ration could be delivered at the home of the respected family. This will do away with the problem of large gathering and uneven distribution of the ration and at the same time it would also help in managing the distribution system in more transparent way.

7. **Regularizing National Health Mission Employees:** Doctors and other Medical Staff played a crucial role during this pandemic by providing timely and adequate service to the people of India. Majority of staffs working at rural or grass root level are based on the contract basis which are devoid of the facilities provided to a regular government worker. It was observed during this pandemic that several doctors and other medical staffs could not maintain their domestic budgets as there were some delays in the payment of salaries which affected their budget and impacted their mental health, in light of this it is suggested that all the employees

working under National Health Mission should be regularized in the job and should be provided with adequate life insurance facility during any kind of pandemic.

8. **Promoting & Incentivizing the MSMEs for manufacturing of essential goods and services:** As other countries are trying their best in managing the essential goods & services i.e. ventilators, masks, sanitizers either by local production or importing from other countries. In Indian scenarios, we were never short of masks and other essential things required during the time of pandemic. Our MSMEs and other Self-Help Groups (SHGs) were able to provide the quantity of essential goods required during the time COVID. This shows the potential of our MSMEs. Considering the same it is suggested to bring special provisions for growth of MSME as rightly said by Hon'ble PM we should move towards "Vocal for Local".

Climate vulnerability and change combined with continued population increase and economic growth are driving rapid overall rise in global disaster risk. Although India is at the forefront in climate change mitigation efforts but at the same time we are also at high risk of loose form extreme events related to weather & climate. The uncertainty associated with complex systems makes it impossible to predict where the next crisis will come from but that doesn't stop us learning the lessons of the past to prepare a systematic response for the future. The principles of resilience and antifragility must be integral to India's growth stories, risk management has to become everybody's business and not just the domain of official agencies.

As rightly said by our Hon'ble Prime Minister that "We have come out of the ocean of disaster", we should not let this opportunity be left un-utilized and should focus more on our pro-active participation to deal such kind of pandemic in the future, if occurs.