









Good evening everyone,

I want to open the session by extending my gratitude for inviting me to deliver this speech at the third Foundation Day of the Centre for Public Policy (CPP). I want to take a moment to acknowledge the support and guidance we received from Professor Sriram in formulating a report by the Kerala Bank on the cooperative sector.

For today's lecture, I have been asked to speak about the Covid-19 crisis in Kerala and how the administration in Kerala managed to contain it effectively, how the state government is working with the central government during this emergency and how it plans to control it in the future.

First, I want to get your attention to Kerala's society. The development model in Kerala is driven by a people-centric approach that is largely based on humanitarian principles. Pre-independence, Kerala used to be a feudalistic society, just like most other states in India. Along with feudalism, a consumerist culture existed in Kerala because of the onset of capitalism at that time. This dual culture, a feudalistic approach on one side and a

consumerist culture that is largely profitoriented on the other side, had its respective drawbacks especially on poor people in rural and urban areas. In 1957, the first election was conducted in Kerala and the Communist Party of India, a Left government, came to power. That government took some important decisions and passed some key acts in the legislature. It strictly prohibited forced eviction of agricultural workers and the poor peasants from their lands by the landlords. The government went for a reformation in the spheres of education and public health system in the state. That was the foundation to several developments to follow in Kerala and even subsequent governments continued to carry on such people-centric projects in Kerala. Over the years, we have been able to build a very sound public health system as well as public education system which helped a lot during this pandemic as well.

The Covid-19 pandemic became a litmus test for governance systems throughout the world. This pandemic is spreading in each country and different countries took different methods to contain the virus. The systems of the different governments are

being discussed in different platforms during the past one and a half years. A lot of people have been referring to the Kerala model in combating the virus. As stated above, every government has different methods to tackle the virus and one must engage in significant scrutiny to figure out which method is most effective in doing so. I do not think there is a foolproof way to eliminate the virus yet. With that in mind, I would like to share some of the methods we adopted during the height of the pandemic in Kerala.

I want to, once again, reiterate that while discussing the achievements of Kerala, we must look at the history of Kerala and the outcome of such people-centric policies and actions throughout these years. The concept of welfare state spearheads the socio-economic development plans Kerala. These welfare policies were part of Kerala's humane and inclusive response to the Covid-19 pandemic as well. Covid-19 has been one of the long-drawn pandemics that Kerala has ever experienced. The virus first surfaced in Kerala on January 30, 2020, shortly after the cases from Wuhan were reported. I was the Health Minister of the state then and I, along with my team, acted on the situation almost immediately. We learnt that the novel Corona Virus belongs to the SARS - Coronavirus-2 family which is highly viral and contagious. It reminded me of my experience with the Nipah virus. Nipah appeared in 2018 in a village in the Calicut district of Kerala and at that time, nobody was aware that a virus like that existed. I believe that it is particularly wrong to say that the virus originated from Kerala. The virus was carried by bats and transmitted to human bodies. A peculiar disease happened to occur in one family and four family members showed symptoms like severe cough and fever. They were hospitalized and eventually a virology laboratory outside Kerala confirmed that it was Nipah virus. Upon learning about that, I started my own research to understand the nature of this virus. I realized that it was a newly emerging virus which is highly

infectious with a high mortality rate, and there is no proper vaccination or treatment to eliminate it. But there was hardly any time to be frightened because the situation needed to be addressed immediately. Since I was the Health Minister at that time, I called my Health Secretary for advice and immediately moved base to Calicut for a month during the containment phase of the virus. From that experience, we learnt a lesson that if an infectious disease occurs anywhere, the first thing the government should do is close that area. It was not a seamless experience without some major challenges. One being the rapid movement of people out of the Changaroth (panchayat) village in Calicut. As the news of the virus came out at a large scale, people started to flee the village to other districts. They were afraid of the virus, and they were going out to other villages and other districts. This was extremely worrying because the virus could travel to other places through this exodus, and we would have been forced to open more war fields instead of one. To take hold of the situation, I decided to be physically present in that village with my team and request people to cooperate and stay within the village itself. I had to take this harsh step because I was an elected representative of the people and I had to put them before my life at all costs. Eventually, we moved to that village, and we closed that area. We supplied essentials, medication and ration because of that. Our accredited social health activists, ASHA workers and health inspectors, visited every household and examined whether they needed anything. Our Honorable Chief Minister was very supportive, the government cleared the funds needed for this purpose. We formed a team with all the important stakeholders and understood that team formation is the most crucial step towards fighting against such emergencies. With such an integrated approach, we controlled the virus within a short span of time.

That was a very good experience and from that, we were trained about some important measures to contain a virus such as quarantine, isolation, testing, and tracing. So, when the Corona virus first appeared in Kerala, we drew from our experience in controlling the Nipah virus and instantaneously formed a response team. We formed 18 expert groups within two days and assigned responsibility to Additional Health Directors of every team. For instance, if one is given the responsibility of collecting protection equipment, the other Health Director is responsible to investigate quarantine and contact tracing. We opened district control rooms. At that time, no one returned from Wuhan to Kerala. However, a flight from Wuhan landed in Kerala on 27th January 2020. I think almost 72 passengers were onboard. We screened those passengers at the airport itself since we provided training to some team members to carry out such screenings at the airport. And we got three positive cases. The first positive case was reported on January 30, and on February 2 and 3 respectively, two more cases were reported. That was the starting.

Because of our preparedness and timely action, no spread occurred from those three patients, they recovered and were released from the hospital within a short span of time. After two weeks, nothing happened here, and I was advised to withdraw our team from the airport because it was thought to be an unnecessary use of manpower. But I retained that team as is; because I was aware of the highly infectious nature of this virus and people incoming from other countries (not only China) could be potential carriers of the virus.

And as anticipated, some people did return from countries like Italy, United Kingdom, USA, and many of those passengers had the Covid-19 virus. At that time, Kerala was the first state with Covid-19 patients, and we had to formulate the standard protocols and a Standard Operating Procedure (SOP). We could not rely on other states because there was no Covid in other states at that time. We had to strategize on our own and do our own research and learn from other countries and organizations around the world. The core of this lies in collective work and involving area experts in the committee, to make arrangements at the district level and monitoring them regularly.



The virus subsequently appeared in other states of the country. And many states, including the Central Health Ministry, asked us to share our SOP with them. And we did share the same with them.

We adopted some strategies to contain the virus and to control the spreading. The first strategy was tracing. To trace everybody who was coming back from other countries. Trace, quarantine, test, isolate and keep. We traced everyone and we quarantined every passenger who came back from other countries, and we tested the symptomatic cases and we quarantined them for 28 days.

Also, contact tracing. We adopted several methods enabled by Artificial Intelligence, to trace contacts. We published the route map of the passengers without revealing their names - who arrived from where and where to locate them, etc. We requested people to report to us if they had any contact with these places or people. We received a very good response from the people and that way we effectively managed to trace contact. On March 24, the central government declared a nationwide lockdown - that was a blessing. During the lockdown we were able to advance and strengthen the health system as we got some time to catch our breath. Our goal was to put the potential of the virus below the health system resilience threshold. We started to install more beds in the government hospitals across the state. We purchased more ventilators and ICU units and arranged for almost everything, to control the situation. We even started production of oxygen even at the initial stage itself because our expert teams had anticipated well in advance that a shortage of oxygen might occur.

Another strategy was to limit the spread of the virus through media campaigns. We started a campaign called 'Break the Chain'. We urged people to break the chain of transmission of this virus. We also started an SMS (Soap-Mask-Social Distancing) campaign during the intermediate phase

of the pandemic. We urged people from all spheres, from celebrities to school teachers, to promote this campaign. That was a fairly successful strategy to somewhat limit the virus.

The execution of these strategies came with its own roadblocks. As most of you may know, Kerala has been a top performing state in health indices. Low child mortality rate and maternal mortality rate, and improved life expectancy, are a few examples which are comparable to some of the most developed countries in the world. On the flipside, we also have a huge epidemiological and demographic challenge. One such challenge that we are still facing during the pandemic is our population density. Kerala's population density is 860 in one square kilometer as compared to the national population density which is only 430. This has been a great challenge during this highly infectious virus. Another challenge was to safeguard our elderly population. Our old-age population is 15% out of the total population because of the state's high life expectancy, which is a brilliant achievement. But during the pandemic, that became a great challenge - to protect the elderly from the virus. We adopted a reverse quarantine system to protect the poor and the aged from the pandemic. We restricted them from going outside. To help them overcome the frustration from being caged at home all day, we employed counsellors and field-level workers to interact with them on a daily basis to deliver them psychological support and provide them with anything they needed at that time.

This reverse quarantine helped in the first phase to contain the spread of the virus. The epidemiological vulnerability we are facing is nothing but the lifestyle diseases which are largely non-communicable diseases. Many chronic diseases like diabetes, hypertension, cancer, thyroid, are rampant in Kerala because of the changing lifestyle of people. People nowadays do not exercise, eat and sleep properly which has its adverse impact on



their immunity. Consequently, they become prone to viruses and other communicable diseases. The situation gets worse for people with co-morbidities because they succumb to the virus very quickly. Another program that we launched pre-pandemic aided in controlling the spread of the Covid-19 virus. That is, the Aardram mission which aimed at improving the public health system in the state within a span of five years. The positive outcomes of Aardram mission were felt during the pandemic. The Aardram mission was initiated to make government hospitals and public health systems people-friendly and technologically advanced and to reduce the out-of-pocket expenditure.

When I assumed office as Health Minister in 2016, I was astonished to find out that more than 60% of the population – 67% precisely – in Kerala was dependent on the private sector for treatment. Only 33% sought the public health system. This is mainly due to the fact that a majority of people in Kerala are average earners, they are not extremely wealthy. They seek for free healthcare and education. One major cause for this hesitance to go for public healthcare was the lag that existed in the execution and delivery of healthcare services. We realized that the primary healthcare facilities in Kerala needed a major improvement. There was a lack of

doctors, laboratories, and non-availability of staff and doctors round-the-clock, and so on. We rehabilitated the primary health centers under the Aardram mission that I spoke about earlier. We introduced high-tech facilities for treatment in PHCs, top class infrastructure, clinics, immunization and yoga centers all within a PHC. We made it easier for people from all walks of life, including people from grassroot sections, to go for tests for chronic diseases. 'Swaas clinics' or COPD clinics (for prevention and management of obstructive pulmonary diseases) were launched in PHCs. We started 'Aswas clinics' to diagnose and provide help to patients with depression and other mental disorders. We even remodeled the secondary hospitals in the state. Most of you may know that the central ministry only allocates a mere 1% of funds from the GDP to invest in the public health sector. And with such scanty routine funds, it is nearly impossible to make significant changes in the public health sector of the state. Fortunately, the state government at the time when I was the Health Minister launched the KIIFB Project - Kerala Infrastructure Investment Fund Board. Under that project we also got funds in the health sector that was utilized to improve the infrastructure across hospitals in the state.

Even the Taluk hospitals in Kerala are undergoing some massive remodeling. We have introduced super specialized facilities in those hospitals such as modular laboratories, cath labs, cardiology units, improvised ICUs and other modern facilities. We employed some well-experienced doctors in those hospitals. This helped us immensely in fighting the current pandemic. One crucial learning from this is that countries and states around the globe should seriously consider investing in public health and not just spend funds to show in books. The central ministry should allocate more funds for public health and focus on inclusive and people-centric developments in the public health sector. Because that goes together with the principles of democracy which our nation endorses in theory. In Kerala, we have always put the public in the forefront of our decision-making process, and we strive to augment the same.

Our effective planning and administration is the core reason why we were able to successfully control the virus. When the Central Government lifted the nationwide lockdown, on 3rd May, Kerala had already achieved the status of a safe zone. We flattened the curve and that earned quite a bit of global discussion. The credit for this success goes to good team work that made it possible to fight an invisible enemy and overthrow it.

However, as soon as the lockdown was lifted, Malayalis from all over the country started to travel to Kerala even from red zones at that time like Mumbai, Chennai and Bangalore. As such, we employed screening teams at airports, seaports, roads and highways. Even then, some people managed to flee or trespass. We were hit by a first wave at that time in Kerala which was already predicted by some experts. Eventually, we implemented cluster management and started sealing communities based on the rate of Covid cases. Along with that we also carried reverse quarantine and aggressive tracing. Our goal

was to be ready for a peak, in case it occurred, because if a peak hit suddenly, the health system would collapse. All of this proved to be pretty successful since we were able to delay the peak. We managed to flatten the curve yet again to below 1000 cases per day.

The situation was again made worse by the assembly elections that took place in May 2021, but events around the election had started from February itself. The government issued guidelines and protocols for ministers as well as for public who were attending election campaigns and rallies. But there was an absolute breach of those protocols and people rarely followed any of these guidelines. And a second wave was inevitable, not only in Kerala but in several other states that conducted assembly elections at the time. Consequently, India was hit by a ghastly second wave. We failed to delay the peak this time because the peak occurred all of a sudden. However, because of our collective efforts, we had a good number of hospital beds, ICUs, ventilators and sufficient stock of oxygen. We took pride in announcing that nobody in Kerala would have to end up on roads due to a shortage of oxygen. Even though a large number of deaths occurred all over the country, Kerala was not hit by a large number of deaths. We faced accusations of hiding the statistics but that is simply not true. I have personally investigated the number of deaths and recoveries and it is very much available on our portal. We followed the ICMR and WHO guidelines in reporting the number of cases and deaths on a daily basis. There is a register in all the hospitals for Covid positive patients with detailed records of their vitals. We have a very good reporting mechanism in Kerala which helps us in keeping the details very transparent for examination. We also register each and every death. Death registration is 100% in Kerala which, I think, in some states is below 50%. In Kerala, it is 100% because of our strong local self-governments and wards. They examine each and every death.

I do not intend to extend my speech any further. During this second wave, when the positivity rate has plateaued and the death rates are increasing, in Kerala we have managed to keep it below 0.6%. WHO considers a fatality rate below 1% to be a good indicator in containing the virus during this peak.

I want to restate the importance of collective effort and people-centric governance once again. Governments should prepare for emergencies well in advance and promote inclusivity and public participation. Not only that, governments should also ensure safety for the weaker sections and rural population. The Covid-19 experience comes with a set of drawbacks as well as learnings for future.

In conclusion, I would like to urge the young audience at IIM Bangalore to come forward and shoulder responsibilities along with the government to tackle difficult issues as this. The younger generation is the backbone of our society, and they should participate in eliminating such threats to human race all over the world. Jawaharlal Nehru once said, "Success often comes to those who dare to act. It seldom goes to the timid who are afraid of the consequences".

With these few words, I would like to end my speech.

Thank you all.



