Policy Review

Fighting COVID-19: Lessons from China, South Korea and Japan

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1. Introduction

COVID-19 has emerged as a global pandemic, infecting over 1.519 million people in 209 countries and territories of the world – more than 88,500 of them have died, and counting. It was emerged in the Wuhan city of Hubei province in China and stemmed to almost the whole world. The worst-hit countries and hotspots happen to be in Europe (Italy & Spain), United Kingdom, United states, and Iran.

Pakistan, despite sharing close borders with China and Iran, remained unaffected till the end of February, but the issue started when it received Pakistani pilgrims returning from Iran. As of recent official figures released on April 8, 2020, the nationwide tally of COVID-19 patients has touched the figure of 6072, including 58 deaths. Area-wises figures have been given in the figure below:

**Table:** Area-wise summary of Corona patients on April 8.

<table>
<thead>
<tr>
<th>Province/Territory</th>
<th>Punjab</th>
<th>Sindh</th>
<th>KP</th>
<th>Balochistan</th>
<th>Islamabad</th>
<th>AJK</th>
<th>G-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of Patients</td>
<td>4030</td>
<td>986</td>
<td>527</td>
<td>206</td>
<td>92</td>
<td>19</td>
<td>212</td>
</tr>
</tbody>
</table>

In its report to the Supreme Court of Pakistan, the government has submitted that coronavirus cases will reach over 50,000 by April 25, 2020. According to the report, around 7,000 cases are expected to be critical while around 2,500 could be a cause for concern.

While the Government of Pakistan is committed to fighting against the exponential growth of COVID19, there are huge uncertainties and gaps in the implementation of the proposed measures and strategies adopted to save the lives of people. Since COVID19 has paved way for an economic recession, lessons from countries like China, South Korea and Japan can explain various systematic approaches and the options designing their people-centric fiscal and monetary policies (since these countries were among the first to experience the incidence of Coronavirus).

This policy review aims to:

- Analyze the current situation of coronavirus in Pakistan, global response to crisis and measures taken by China, Japan and South Kora to cope with the crisis.
• Provide policy recommendations on the basis of lessons learnt.

2 Analytical Framework

The study is based on an online dialogue conducted by SDPI to provide policy input to the stakeholders in the backdrop of COVID-19 outbreak and its impact across the country. The study mainly analyzes the measures and actions taken by China, Japan and South Korea using considerable factors: political/governance system support, socio-cultural, economic impact, use of technology and collective efforts. The lessons learnt are further explored using four levers from WHO guidelines and framework, providing key recommendations for Pakistan. These levers are:

• **Readiness**- to ready emergency response systems such as to increase capacity to detect and care for patients; to ensure hospitals have the space, supplies and necessary personnel; and to develop life-saving medical interventions.

• **Preparedness**- prepare a response to slow and stop transmission, prevent outbreaks and delay spread of COVID-19.

• **Implementation**- assess its risk and rapidly implement the necessary measures, providing optimized care for all patients, especially the seriously ill.

• **Post-COVID 19**- Minimize the impact of the epidemic on health systems, social services and economic activity.

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3. Country assessment

This section highlights responses, measures and actions taken by the countries. It also analyzes the countries' successes and lessons for Pakistan.

3.1 Lessons from China

Governance system support:

The authoritarian political system of China was instrumental in introducing reforms to combat the spread of coronavirus. The mass lockdown of Hubei province, in which 60 million people were forced to stay at home along with travel restrictions greatly halted the spread of the virus. The Chinese government did this swiftly because its political system is much simpler than that of Pakistan and other liberal democracies. China has a one-party system (i.e. Communist Party rule),
which is the ruling party of China. The communist ideology is based on the notion that state is superior to individual and every individual has a duty to the state. The state has control over individual liberties in times of crisis. This is evident from the fact that China imposed a ‘draconian’ lockdown without any opposition from within, and people had to follow the government guidelines regardless of their individual opinion and liberties. This also allowed China to embark on vigorous reforms which were implemented immediately. Hospitals in Wuhan were constructed in 10 days, people who were suffering from other ailments were not given treatment and transportation to and from Wuhan remained suspended till the crisis was over. China was also able to make all coronavirus testing free, including those done by private labs. Their governance system makes it possible for the government’s rules to be enforced and followed as the consequences of non-compliance are harsh. During the lockdown, security guards were on patrol to enforce government orders.

Pakistan is a liberal democracy, so the measures similar to those of China are difficult to implement. China followed one national strategy whereas in a devolved system such as in Pakistan, a comprehensive national strategy is difficult to implement. In Pakistan, all political parties have to be taken on board in order to form a strategy and each party’s concern has to be considered. Individual rights cannot be suspended so easily as declaring emergency in the country requires the approval of a joint session of parliament. Imposing a complete lockdown is risky from a political perspective because the grievances of the people in response to it may compromise the ruling party’s standing in the next elections. Threat of force is also not possible in Pakistan and the law-enforcement agencies can only persuade and admonish people.

**Socio-Cultural aspect**

The major consequence of the lockdown in China was isolation. To control the disease, isolation was the major tool that gave birth to fear and anxiety amongst the Chinese population. The fear that others may be infected and because of them, they too may get infected has resulted in anxiety among the people. This may further lead to depression and mental health issues. A major social-cultural impact was witnessed on the occasion of annual Spring Festival celebrations in China. Travel declined by 40% as compared to last year as people were reluctant to travel amid
the coronavirus outbreak (Martin 2020). This further impacted social life because people were forced to stay away from each other and remain in isolation.

A similar impact is possible in Pakistan. The government has not imposed a curfew but still it advocates social distancing as the only way to combat the spread of the virus. Public places have been closed and people have been told to restrict their movement and not to participate in social and religious congregations. Just as the Spring Festival celebrations were affected in China the upcoming Ramazan, the fasting month of Muslims, and the consequent Eid can also be affected. If the virus outbreak creates more havoc, Eid celebrations may be limited or restricted. Pakistanis mostly live in a joint family system and complete isolation from relatives is not possible. Even if families are independent, they regularly meet each other. This shows that social distancing and isolation is not completely possible in Pakistan without strict reforms and implementation from authorities.

**Containment and Lockdown**

Soon after the virus outbreak, China imposed a complete lockdown in Wuhan city where the virus originated. This helped in containing the outbreak to one city and prevented its spread to the rest of China. However, few cases were reported outside Wuhan. Until January 2020, 375 cases were reported in Hubei province whereas only 10 were reported in Beijing (World Health Organization [WHO] 2020). The lockdown helped in ensuring that as many people as possible could be saved from the virus. Containment of the Chinese population in Wuhan effectively reduced the impact on the rest of the country’s population. The Chinese statistics show that people above 50 are the most affected while young people are relatively safe. This shows that the working force is largely intact and can help in the economic recovery.

Chinese response to identifying the origin of the virus and containing Wuhan was quick. However, the situation in Pakistan has escalated. Initially Sindh and Balochistan provinces could have been isolated as they were the most impacted. Despite a strict lockdown in Sindh, the virus has spread to the whole country. The Punjab has the greatest number of cases and deaths. Unlike China, lockdown of a province could no longer protect the rest of the population. In Pakistan, younger people form a majority of coronavirus cases. According to a Press briefing by the Special Assistant
to the Prime Minister on Health, 24% of the confirmed cases are of young people. This is an alarming situation because Pakistan has the second largest youth population and if they are affected, the working force can be severely reduced. The government has closed educational institutes and recreational places to protect the young population. Offices have been instructed to only allow essential staff to come to work. Further measures must be taken keeping in mind the youth of Pakistan.

**Use of Technology**

Technology was used massively in China during the fight against coronavirus. To protect medical staff and avoid congestion in medical facilities, many consultations have been moved online. 50% of doctors’ visits were moved online to facilitate those patients not suffering from coronavirus. China used technology to trace every single one of the 80,000 coronavirus cases. They embarked on massive contact tracing. Centers were designated where disease spread was monitored on screens and field teams were out to track the cases. Chinese social media platforms, Weibo and WeChat, shared accurate information regarding the virus and were instrumental in debunking fake treatments and myths. Testing time was also reduced from four days to four hours due to improvement in biotechnology (Brueck, Miller & Feder 2020). Research on passive immunization and vaccines is ongoing in China.

Pakistan has also started contact tracing to detect cases. The Sindh government effectively traced many cases that were cleared from airport screening. To share accurate information, the government of Pakistan launched a website that shows accurate distribution of cases, the symptoms of the disease, lab locations and debunks myths. Similarly, a WhatsApp account of the Ministry of Health has also been launched to further improve upon the distribution of accurate information. Passive immunization trials have been approved and locally-made testing kits and ventilators are also being worked upon to reduce reliance on imported medical equipment.

**Economic Setback**

The coronavirus pandemic has resulted in a major economic setback for China. According to the World Bank, China’s growth could slow down to 2.3%. This is a huge setback because the growth during 2019 was 6.1%. However, China may not suffer a complete recession because most of the
world has imposed lockdowns causing business activity to slow down. Still, China will not escape unscathed. Manufacturing activity and industrial production has fallen drastically for the first time in 30 years. China’s economic models are export-oriented and investment driven. With limitation in both export and investment because of overall economic slowdown around the world, this would severely impact the Chinese economy. The people also played their part. Many people shifted jobs to help the people. A highway worker was reassigned to take temperatures. Moreover, essential items were delivered to people in their homes so that they won’t have to go outside.

This pandemic can create a frightening situation in the country with an already fragile economy. While China has the capacity to survive the economic setbacks, Pakistan does not. Pakistan has less exports and manufacturing which mainly consist of raw agricultural products. With global demand reducing, market for Pakistani products has reduced drastically. In addition, businesses have been forced to halt operations due to fears regarding the spread of the virus. The informal economy which consists of daily wage workers would be the most drastically hit in this crisis. To provide a stimulus to the economy, the government has announced Rs 1.2 trillion relief package aimed for industries and daily wage workers (Haider 2020). The plight of daily wage workers is the reason that the government has not imposed a curfew. The prime minister has set up a corona relief fund and a corona relief tiger force, which would deliver essential items to daily wage workers. This would help cushion the blow to the weaker segments of the society. However, the government also needs to strike a balance and prepare for an expected complete lockdown. More shelter homes, tax waivers and control on hoarding can contribute much towards reducing the economic impact. Local production of personal protection equipment (PPE) can greatly reduce foreign spending on medical equipment saving millions to be used for relief.

**Collective Efforts**

The Chinese people fought against the virus as a community and each individual played his/her part. Volunteers signed up to assist in relief work and about 40000 medical workers volunteered to go to Wuhan to help in containing the outbreak over there. They rigorously followed government directives and stayed in isolation and considered it their social responsibility to
report the cases. People switched their jobs to take part in relief activities. They repurposed themselves for tasks that would help in tracing, identifying and treating coronavirus suspects and patients. Volunteers also delivered essential items at people’s doorsteps.

The government of Pakistan has made a country-wide call for social distancing, but so far people are neglecting this order. In Lahore, the police had to arrest around 500 people violating section 144, a law that bars gathering of more than four persons. Pakistanis continued to gather in public. When the government ordered to stop wedding ceremonies at hotels and public places, people started arranging the same in their homes. Unless, people themselves realize the importance of social distancing, the virus could spread more rapidly and infect a great number of people. To aid daily wage workers, relief organizations have started collecting funds and distributing ration packs among the needy. However, the rule of social distancing is still being violated, especially when ration is distributed. A proper mechanism needs to be devised in this regard.

3.2 Lessons from South Korea

Governance System Support

South Korea is a democratic republic and as such it did not imposed lockdown that China did. Instead, South Korea identified coronavirus suspects and patients, and put them to quarantine and isolate them as quickly as possible. The country readily launched a comparatively expansive and well-organized testing programme to cope with the disease. After identification was done through testing, the government took rapid action to isolate the patients and trace their contacts to identify all the possible cases. South Korea has a testing average of 5200 per million inhabitants. It is a massive number compared to the US where only 74 tests are done per million inhabitants (Normile 2020). The South Korean strategy is one of increasing the capacity of diagnosis to control an epidemic.

Pakistan has a similar political system to that of South Korea and as such it can serve as a model for control of coronavirus in Pakistan. So far, the government has imposed partial lockdown, but the South Korean model shows that lockdown may not be necessary. As 25% people live below the poverty line, the South Korean model can be considered. Pakistan can work to increase its testing capacity and make arrangements for the isolation and quarantine of suspected cases. To
achieve this, Pakistan can work to rely less on imported testing kits and focus more on locally manufactured kits. National University of Science and Technology has manufactured testing kits one-fourth of the cost and is awaiting approval. Until then orders have been placed for one million testing kits and 50000 kits would arrive soon (Goraya 2020). University hostels have been converted into quarantine centers and passenger trains into hospitals having ventilator facilities. Such measures can help increase the diagnostic capacity, which may stop the extensive spread of the disease reduce the chance of a complete lockdown.

Socio-Cultural aspect

South Korea also banned social gatherings. Public places, educational institutes, large gatherings were closed and major sporting events were also cancelled. However, the measures were not as strict as ones in China and people were allowed to travel, if necessary. The people of South Korea had a huge role to play as they closely followed the government’s directives and made social distancing a part of their lives. Moreover, institutions started educating the public about the steps that they could take to combat coronavirus. These steps included care for personal hygiene, use of masks, working online, remaining at home unless absolutely necessary and social distancing. Notices and messages were disseminated through media and banners displayed on roads. These measures would have a long-term impact in educating the public on healthy practices which would improve the overall health of the people. It is for this reason that they have been able to recover from this pandemic.

Pakistan can also educate public about safe health practices like in South Korea. Creating public awareness is essential to combat this virus. People need to be aware of their responsibility regarding social distancing and maintaining proper personal hygiene. Wearing protective equipment is necessary to prevent the spread of this virus. So far, the public has largely ignored the government’s directives and still continue to gather in homes since public places are closed. People are also not wearing masks and not maintaining distances. Such situations can be observed at railway stations and ration distribution centers. Protective equipment is in shortage and the government must work on local manufacturing to meet the rising demand. Strict implementation may be necessary to maintain social distancing among the people. The
government can use media platforms to educate the public about safe health practices and personal hygiene.

**Extensive testing and effective isolation**

Statistics show that the young population is the most affected by coronavirus in South Korea. 29.9% of the total cases in South Korea are in the age group 20-29. People above the age of 80 comprise only 3% of the total cases (Buchholz). The extensive testing programme of South Korea was instrumental in detecting the cases of coronavirus in the young population and the government took effective steps to isolate them and started their treatment.

Pakistan also has a similar position. About 20% coronavirus cases in Pakistan are found among the youth, but the youth is not our testing priority. The testing facilities is only offered to the suspected people which are above 50. The government offices in Islamabad have been instructed to put the employees above 50 years old on rotation. Young workers are still going to work. The government must realize that youth is an asset and they must also be protected. The testing net must be expanded to include young people and their work routines should be regulated.

**Use of Technology**

South Korea used various methods to track coronavirus suspects through technology. The country carries out highest number of cashless transactions. It was possible to map a user’s movement through transactions done through credit and debit cards. South Korea also has one of the highest cellphone ownership numbers. Phones can be used to track locations through 4G and 5G networks as one phone is connected to two or more transceivers at a time. Citizens are also required to register their mobile sets by providing their real names and national registry numbers. CCTV cameras were also used to track people. In 2014, South Korean cities had on average, one camera per 6.3 people (Coronavirus outbreak), which means an extensive CCTV network. These three technologies ensure efficient tracking of people even in blind spots when used simultaneously.

In Pakistan, these technologies are also in place but at certain level. Transactions are still done by cash, as cashless transactions have not become a common trend in Pakistan. Only 21% of
adults use this mode of transaction (Pakistan adopts roadmap 2020). Multiple phone SIM cards are registered in one name which makes it impossible to track citizens through mobile phones. CCTV cameras are installed at public places, but they alone cannot detect people in blind spots and so these cameras must be used in conjunction with mobile phone tracking and transaction tracking. Moreover, many CCTV cameras are out of order due to no regular maintenance. The government must encourage people to perform cashless transactions and provide facilities to assist people in this regard. Card reading machines can be installed in major markets. Restrictions may be placed on SIM ownership and CCTV cameras should be regularly maintained to ensure effective contact tracing of suspects.

**Economic Impact**

The manufacturing industry has largely remained open in South Korea. However, the threat of the virus spread to economic centers like Busan, Ulsan and Seoul may disrupt the supply chain which could affect the regional and global economy. Exports chiefly of automotive and semiconductor products may be affected. 20% of automotive industries are located in Daegu and North Gyeongsang, which are the hubs of the virus. Halt in production is expected as Chinese demand has decreased and a 20% decrease in domestic automobile sales is expected due to decreased consumer demands. Projections for growth have fallen from 2.3% to 2.1%. Greater impact would be felt by smaller industries which cannot bear the fallout from slow economic growth. South Korea has announced about $25 billion package to provide stimulus to industries and to support its loans programmes (Worldview 2020)

Pakistan may also suffer immensely form economic fallout because of the pandemic where the services sector has been severely impacted due to the ongoing lockdown. GDP growth is expected to drop because of revenue losses, decrease in exports, limited remittances and disruptions in food supply. A loss of $5 billion is expected according to the World Bank. Most affected are the daily wage workers who comprise 47% of the workforce in the services sector. The government can provide stimulus and relief packages similar to what South Korea has done. However, the package can differ according to the economic capacity of Pakistan. The government has already announced a Rs 1.2 trillion relief package for industries and daily wage workers
((Haider 2020). Ehsaas programme is also being expanded and the corona relief fund has been set up. The government can work further along these lines to relieve small businesses and give them an opportunity to bear the brunt of the economic fallout caused by the pandemic.

**Collective Efforts**

In South Korea, the government had not to force people to maintain social distancing. People religiously followed the government directives and isolated themselves during the early days of the outbreak. Public places closed down, not because they were forced to do so but due to decrease in customers demand. This is because people had started practicing social distancing from the early stages of the outbreak. Churches suspended their services and uploaded sermons online. The society adapted itself to the change and welcomed the concept of social distancing.

In Pakistan, the people have so far not implemented social distancing. Cooperation by the people towards the government is severely limited as citizens continue to defy government orders and continue to hold large congregations. Religious leaders have advocated people to pray inside their homes but this instruction has been ignored as seen at some places. Moreover, people continue to gather at homes for family functions where social distancing is not maintained. Similarly, distancing is not implemented at places where ration/food is distributed among the poor. A mass education programme through mainstream and social media can greatly help in creating awareness. If such measures prove unsuccessful, then the government may have to employ strict measures.

**3.3. Lessons from Japan**

**Governance system support**

Japan followed a similar strategy to China. It formed a firewall to prevent the country from the influx of coronavirus. The main features of this method included: banning entry of travelers from coronavirus-hit regions mainly China and South Korea. The travelers arriving from other countries where there were active coronavirus cases were quarantined to identify the suspects. The same was done at harbours and airports. Best example of this is the quarantine of the ship - Diamond Princess. The passengers were prevented from disembarking for almost a month. In this period, about 700 cases were detected in the ship. The number of infected people from the ship
continued to rise after they were allowed to enter the country, it gave the state some breathing space to prepare and halt the spread of the virus. The Japanese Diet (assembly) also passed amendments to the special provisions law 2013 giving the government greater powers in case of an emergency. Under a state of emergency, power was supposed to be devolved to prefectural (sub division) governments, which would control the movement of people. In comparison with other states, Japan has conducted only 10,000 tests as compared to South Korea that had conducted 240,000 tests. The Japanese have focused on high quality testing rather than numbers and only reliable methods of testing were allowed in public hospitals. The Ministry of Health, Labor and Welfare had a major role to play in policy decisions. The experts were involved in the decision-making process alongside the Prime Minister (Watanabe 2020).

followed a similar strategy to Japan, the government of Pakistan has banned all international arrivals and departures and stopped domestic flights till April 11th 2020. Only special flights have been allowed to operate in order to bring back stranded Pakistanis abroad. However, the government needs to take strict measures like Japan did with the passengers aboard the Diamond Princess. The passengers of these special flights are first quarantined and then they are allowed to go to their hometowns. This is necessary because simply using thermal scanners proved ineffective in Sindh where early cases were detected after being cleared from airports. The government must also prepare for the possibility of a complete lockdown like Japan did. The Prime Minister has constituted the corona relief tiger force to provide sustenance to daily wage workers if such a measure needs to be passed. Local governments need to be empowered to allow effective implementation of government directives. Devolution towards local government level greatly improves the efficiency of policy decisions which would have fewer bureaucratic hurdles to pass. Pakistan also lacks testing kits. However, the government can focus on improvements which would allow less time for test results so that testing speed can be increased which would help in getting accurate data more quickly.

**Socio-Cultural aspect**

The Japanese socio-cultural environment has been instrumental in controlling the spread of the coronavirus. The 1918 Spanish flu epidemic claimed the lives of about 50 million people which is
much higher than the death toll due to the Hiroshima and Nagasaki bombings. Since then, wearing masks have become a part of Japanese culture. Cloth and paper masks are worn in public by the people even if they are healthy. It has become such a standard practice that 4.3 billion face masks are manufactured annually and the average Japanese uses approximately 43 masks per year (Halderman 2020). Mask wearing has become a social etiquette and has become a fashion statement being effectively promoted by celebrities. A variety of masks are available including scented versions and those that appear fashionably beautiful. The Japanese culture is also more socially isolated than other cultures, so they already follow it to some text.

In Pakistan, the importance of masks has been neglected and most people are seen in public without masks. This can be attributed to a shortage of masks, but there is also lack of awareness. In first case, the government can work on local manufacturing of masks to curb mask shortage. To create awareness, the government can direct celebrities to promote mask usage because Pakistanis are highly inspired by celebrities and one popular celebrity promoting mask wearing can create greater awareness among the people. Once masks become a fashion accessory, people would flock towards wearing masks and manufacturers would try to work towards improving their quality. Originally, Pakistani culture is the totally opposite of social distancing. Large gatherings are a sense of pride and importance. However, in the wake of this pandemic, this culture needs to be changed and social distancing must be practiced to keep each other safe. The government can work on educating people through social and mainstream media about the advantages of social distancing. Religious leaders can also play their part in augmenting government efforts as they hold enormous influence over the people.

**Early identification and then testing**

Japan has not tested a large number of people, as officials think that it is unnecessary to use the entire testing capacity when it is not needed. Instead, the Japanese government has focused on identifying clusters of population where coronavirus cases are rampant. After identification of prefectures where cases are greater, they are directed to conduct testing and isolation of suspected patients. These clusters were also identified at early stages of the outbreak according to the Japanese Prime Minister. This also helped in controlling the spread of the virus. Focusing
early on special clusters has proved effective in the sense that the government needs not to impose a complete lockdown or a state of emergency on the entire population. Japan has only tested 5% of its population and has been able to save its testing capacity in case of a second wave of outbreaks (Reidy 2020). This has been possible by identifying and isolating areas with greater number of coronavirus cases and then taking steps to protect the population residing in those areas.

Pakistan could also have followed a similar strategy if decisions had been taken earliest. Sindh and Balochistan provinces could have been isolated before the virus spread over the entire country. It would have prevented the spread of the virus to other provinces. However, the government can still identify cities and areas inside cities where cases are emerging in large number and isolate them. This would help in identifying the demographic distribution of cases and help the government devise strategy to treat and isolate the affected people. The government has been working on this strategy as various areas of Islamabad were sealed off which included Barakahu, Shehzad Town and Rimsha Colony. This prevented the need for a complete lockdown in Islamabad. A similar approach can be used in other cities where clusters of population can be identified which are affected by coronavirus.

Use of Technology

Japan has focused on bio technology in its fight against coronavirus. Fujifilm Corp has manufactured an anti-flu drug called Avigan. This drug has been administered to coronavirus patients and has been found effective in their treatment. The Japanese health ministry has authorized the use of Avigan in the treatment of coronavirus patients. Research on the drug use China revealed that patients who were declared positive turned negative in about four days. It can be safely used and is effective in treatment (Guardian 2020). Information technology has also been used to spread awareness regarding coronavirus. NHK, the Japanese public broadcaster, has launched an information portal to provide accurate and reliable information regarding the virus. Medical and social issues are being broadcasted as documentaries. Television programmes show guidelines on making masks and a balanced diet to boost immunity (Frater 2020).
Pakistan is also following a similar approach and research is being carried out on developing a vaccine. Moreover, the government has also approved the research on passive immunization technique where plasma from a recovered person can be used to provide antibodies to fight against the virus. The government can increase research grants for projects involving the development of coronavirus treatment related equipment. The Pakistan Science Foundation has invited research proposals in this regard. Research on the manufacturing of ventilators and testing kits is also going on. The government can soften bureaucratic hurdles so that these technologies can be implemented as quickly as possible. The government has developed a website and WhatsApp application to provide accurate data regarding number of cases and available treatment options. The government can expand these services to remote areas as well by providing internet coverage so that more people can benefit from accurate information.

**Economic Impact**

Japanese economic growth projections are expected to fall in the first quarter of 2020. Machinery, electronics, chemicals and transportation are the driving agents of Japanese economy. China is a good market for Japanese products and account for about half of Japan’s Asian trade. Trade has fallen by 5% due to less production because of shutdown of factories and reduced demand of products in China. The impact of coronavirus on China and its trade dependent countries has resulted in trade decline, which further affects Japan because of its dependence on China. Europe is the biggest market for Japanese products. Their supply chain depends on coronavirus-affected countries such as China. This would create a ripple effect on Japanese economy as well. To ensure economic stability, the government is planning to introduce a stimulus package worth 10% of the annual economic output ($503 billion). ¥300,000 would also be given to households whose income has reduced because of coronavirus (Coronavirus outbreak 2020).

The economy of Pakistan is also struggling to survive and facing losses because of the pandemic. The government has introduced a Rs 1.2 trillion economic relief package to provide stimulus to industries and stipends would be given to daily wage workers whose income has fallen because of partial lockdown in the country. Similarly, provincial governments have also offered relief
packages in addition to those announced by the federal government. The informal economy, which comprises daily wagers, labourers, etc., needs to be protected in Pakistan. This group is the most affected by the outbreak. Keeping in view the situation, the prime minister has ordered the resumption of construction projects. The corona tiger force has also been formed to provide food/ration to people in case of a total lockdown. People have also been given extension of three months in payment of utility bills. More relief packages and tax waivers can be announced to help stabilize the economy.

**Collective Efforts**

The Japanese central government, local governments, NGOs and corporations collectively worked to aid China during the outbreak. The Japanese ruling party voted to donate ¥ 5,000 (around $45) from their monthly salaries and sent thousands of pieces of medical equipment to Wuhan. The people of Japan were also no exception. The people of Oita prefecture collectively gifted 30,000 masks to the city. The cities of Mito, Okayama and Maizuru also followed suit. Japanese companies donated over a million masks and protective equipment to China. The Japanese people in particular have taken great care of their personal hygiene and they ensure the wearing of masks as they have a sense of individual responsibility to prevent the spread of the virus.

Pakistani businessman has also been stepping up to donate to charities and aiding government efforts to combat coronavirus. The owner of Bahria Town arranged the disinfection of Barakahu. Sindh government officials have also donated portions of their salaries. The armed forces have also played their part in aiding civilian government to ensure order in cities and in relief work. They have also donated portions of their salaries in the relief fund. Only through such collective efforts can Pakistan emerge from this crisis.

**4. Policy Recommendations**

Based on the above analysis, several measures and policy recommendations are as follows:

i) **Readiness**
• Local governments should be asked to take strict measures related to quarantine arrangements.
• There is a need to form village and neighbourhood committees to provide basic health and hygiene information at everyone’s doorstep besides providing groceries and basic necessities to people living in quarantine. 
• There is a need to work together to provide additional masks and disinfectants also fighting against fake news, rumors and misinformation. 
• Community workers and security guards can volunteer to hold the necessary equipment for timely temperature check and to direct people towards safety precautions.
• Testing time can be reduced. Volunteers can be trained to take tests and compile results to provide quick results. More medical staff may also be hired to achieve this.
• Private labs can also be involved to increase the number of tests. Subsidy can be provided on private lab tests to reduce the costs for the public.

**ii) Preparedness**

• Establish pandemic insurance funds for the society to bear virus related losses.
• Provide facility of free testing to more than one fourth of the population.
• Create Social safety nets for the poor sector of the society.
• Government must force people to maintain social distancing.
• Incentives for locally developing testing kit of COVID-19.
• Construction of temporary quarantine centers and hospitals can be started similar to how they were constructed at a rapid pace in China. This would also provide relief to daily wage workers.
• Funding avenues can be prioritized. Funding for non-essential ventures can be suspended and redirected towards coronavirus relief efforts.

**iii) Implementation**

• Medical doctors and workers should be compensated well by the government for their sacrifices during coronavirus.
• Use of Technology can identify persons not wearing masks and scan crowds for fever; Smart helmets which can measure fever within 5m radius; ‘Ring a doctor’ which can connect patients to doctors and pharmacies at home; Food delivery apps enables people to get food on daily basis at their doorstep.
• The government should devise ways to help small and medium size enterprises for the survival in crisis.
• Reduction in taxes, charges and compensate hard hit enterprises
• Commercial banks ensure no shortage of liquidity and allow enterprises to postpone repayment of loan.
• Banks impose lower interest rate as much as possible.
• Law-enforcement officials can be given greater authority to disperse crowds and force people back to homes to maintain social distancing.

iv) Post-COVID 19

• In future (post-Covid-19), there is a need to think about human resources and human development, which include education, health facility, and agriculture development.
• There is a need to form bilateral relationships with other countries in order to share knowledge, technology and other type of assistance to fight against COVID-19. Regional efforts such as SAARC emergency funds should be set up to support the countries in crisis.
• Many companies would have suffered losses. It is important to ensure the availability of funds to provide easy and affordable loans to help them recover.
• Pakistan may need to revise its financial policy. Some expenditures may need to be reduced and some may need to be completely halted so that stimulus can be provided to industries in order to boost economic growth.
References


