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COVID-19 Outbreak in Pakistan Implications and Future Outlook

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Key Points:

- During the first phase of the pandemic, Pakistan was well on track to follow the trajectory of countries severely hit by the virus.
- Due to the decentralisation of the Health Ministry following the 18th Amendment, there has been a lack of singular direction from the Centre in the current situation; leaving it to the provincial governments to execute their decisions in accordance with their interpretation of the situation.
- With people not willing to self-quarantine, clerical establishment resisting in shutting down gatherings at mosques, a limited availability of testing kits and insufficient health infrastructure, the fifth most populous country faces a grave challenge in the form of coronavirus.
- There are several population segments, which cumulatively constitute to about 155 million, which are at higher risk of severity and fatality from COVID-19 infection.
- It remains imperative for federal and provincial governments to synchronise their efforts in a more robust and consolidated manner to decrease the spread of COVID-19.

Introduction

In December 2019, COVID-19 was first identified in the Chinese city of Wuhan. From there, it rapidly spread across six continents, covering more than 190 countries. Currently, there are more than 426,000 active COVID-19 cases all across the world. Nearly 27,000 people have been killed by this deadly virus, whereas more than 131,000 individuals have successfully recovered and been discharged.¹ In Pakistan, there are nearly 1,300 active cases while 10 people have died of the virus.²

¹ "COVID-19 CORONAVIRUS PANDEMIC," *Worldometer*, accessed March 26, 2020, <https://www.worldometers.info/coronavirus/>.

² "Coronavirus In Pakistan," *Government of Pakistan*, accessed March 28, 2020, <http://covid.gov.pk/>.

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Ever since the reporting of the first couple of cases in the country, the Pakistani authorities have adopted a number of interventions including sealing land borders with neighbouring countries, closing educational institutions and closure of public places. A timeline of these interventions is given in Table 1.

During the first phase of the pandemic, Pakistan was well on track to follow the trajectory of countries severely hit by the virus as explained in Figure 2. The exact number of affected cases remains unknown primarily due to the fact that less number of people have been tested so far for COVID-19. In Pakistan, nearly 11,000 people have been tested by March 27.³ With the availability of any vaccination not possible in the next 18 months, it will be difficult for the country's healthcare system to manage

³ Covidwatch.pk, accessed March 27, 2020, <https://covidwatch.pk/>.

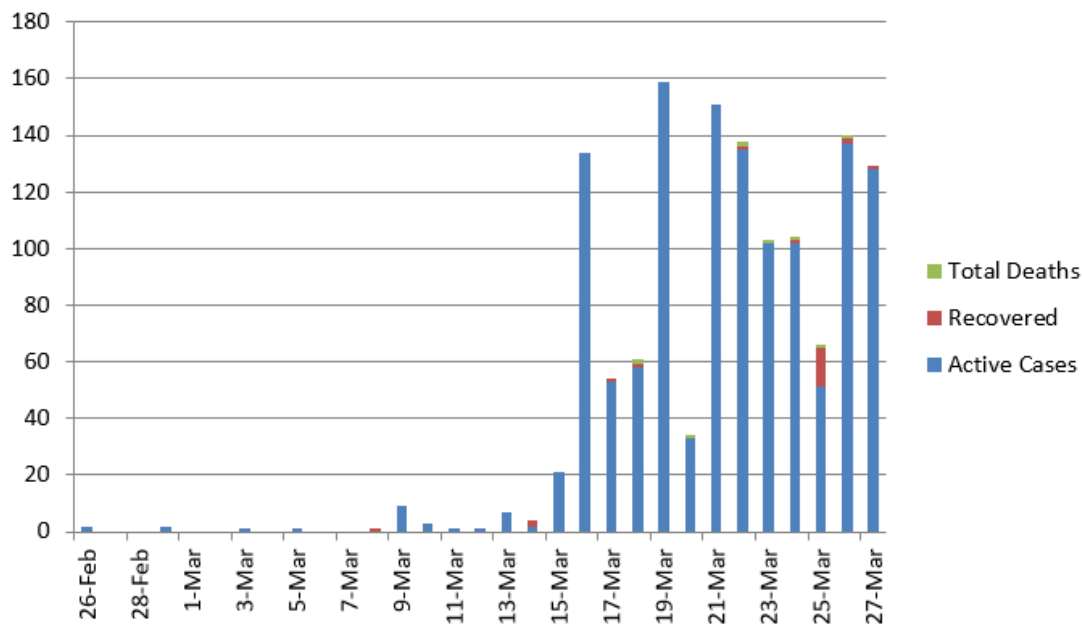


Figure 1 - COVID-19 cases in Pakistan

the second and third phases of coronavirus if the trajectory of virus-related cases continues to grow. This perspective paper investigates the following questions:

- What will be the future trajectory of COVID-19 in Pakistan?
- What are the implications of COVID-19 on Pakistan's economy?
- What will be the social impacts of COVID-19 on Pakistanis?
- What measures should be taken to deal with the pandemic?

Situational Analysis

As of 27th March, there are a total of 1,296 confirmed cases of COVID-19. The breakdown of total cases is as follows:

- 440 in Sindh
- 425 in Punjab
- 131 in Balochistan
- 180 in Khyber Pakhtunkhwa
- 91 in Gilgit Baltistan
- 27 in Islamabad

- Two in Azad Jammu and Kashmir

10 patients have lost their lives while 23 have recovered. As of the 27th of March, cumulative travellers screened are 1,102,383.⁴ The total number of active cases stands at 1,211 to date, making Pakistan the most affected country in the South Asian region.

Within 28 days of discovering its first patient (i.e. on the 26th of February), Pakistan recorded its first 1000 patients. The National Institute of Health has changed the status of its risk assessment of the impact of the disease from "moderate" to "high".⁵ The curve only seems to be getting steeper with the passage of time.

By the second week of March, the Ministry of National Health Services, Regulation and Coordination launched a National Action Plan for Coronavirus with three main objectives: to contain the spread of COVID-19, to prioritize financial and other resources and focus on

⁴ "Daily Situation Report – Pakistan COVID-19," *Ministry of National Health Services, Regulations and Coordination*, accessed March 27, 2020, <https://www.nih.org.pk/wp-content/uploads/2020/03/COVID-19-Daily-Updated-SitRep-27-Mar-2020.pdf>.

⁵ "National Action Plan for Corona virus disease (COVID-19) Pakistan," *Government of Pakistan - Ministry of National Health Services, Regulations & Coordination*

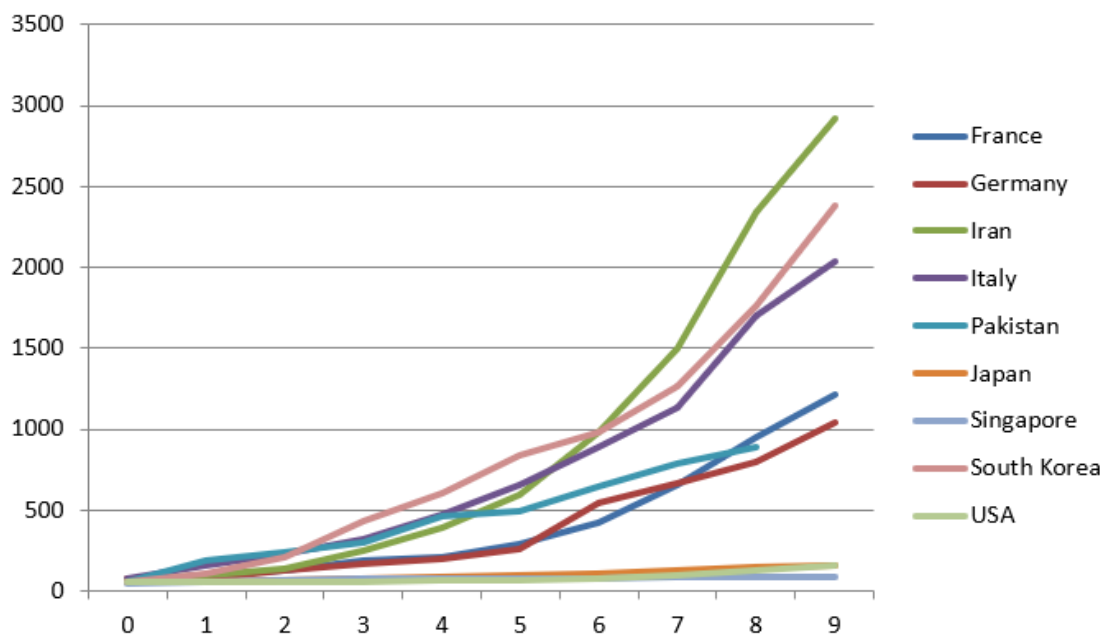


Figure 2 - Early phase of the pandemic and daily growth in cumulative case count in Pakistan compared to other affected countries. The zero on the horizontal axis is the day when confirmed cases reached or exceeded 50

inter-provincial collaboration on health and emergency preparedness.⁶

While the initial spread was through individuals who had a recent travel history, majority of whom had come from Iran, the first positive case of the virus transmitted locally was detected on the 13th of March. From here on an exponential increase in the horizontal spread of the disease was noticed resulting in the first death through local transmission on 24 March.⁷

Due to the decentralisation of the Health Ministry following the 18th Amendment, there has been a lack of singular direction from the Centre in the current situation; leaving it to the provincial governments to execute their decisions in accordance with their interpretation of the situation. There seems to be a gap in effective coordination between the federal and the provincial governments.

The global crisis has subjected the country to greater economic austerity as the country moves from a partial to a virtually full lockdown. The coronavirus is estimated

at costing the economy at least 10 per cent of the GDP from April to June alone.⁸ The dollar has spiked to an all-time high.⁹ The military has been called for support. Furthermore, with literacy rate at 58 per cent, people not willing to self-quarantine, clerical establishment resisting in shutting down gatherings at mosques, a limited availability of testing kits and insufficient health infrastructure, the fifth most populous country faces a grave challenge in the form of coronavirus.¹⁰

⁸ "Pak economy under dark shadow of coronavirus vs deep chronic economic crisis," *The News*, last modified March 26, 2020, <https://www.thenews.com.pk/print/634499-pak-economy-under-dark-shadow-of-coronavirus-vs-deep-chronic-economic-crisis>

⁹ "US dollar hits all-time high against rupee in interbank market," *ARY News*, last modified March 27, 2020, <https://arynews.tv/en/us-dollar-high-interbank-market/>.

¹⁰ Mumtaz Alvi, "Pakistan's literacy rate stands at 58pc," *The News*, last modified April 27, 2018, <https://www.thenews.com.pk/print/309542-pakistan-s-literacy-rate-stands-at-58pc>.

⁶ Ibid.

⁷ Ikram Junaidi, "First death from local virus transmission in Pakistan," *Dawn*, last modified March 25, 2020, <https://www.dawn.com/news/1543524>.

Date	Major Interventions
23 February	Pakistan closed its border to travellers from Iran until 7 March at Taftan border.
26 February	Zafar Mirza, the Prime Minister's Special Assistant on Health, confirmed first two cases of coronavirus in Pakistan.
2 March	Pakistan closed its border to travellers from Afghanistan at the Chaman border.
4 March	The Pakistan Civil Aviation Authority introduced screening measures at four major airports: Islamabad, Karachi, Lahore and Peshawar.
7 March	Pakistan re-opened its border to travellers from Iran at the Taftan border, after 14 days of closure.
9 March	Pakistan extended the closure of its border with Afghanistan at the Chaman border for at least another week.
10 March	The Sindh Government imposed a temporary ban on marriage halls, lawns, banquets, <i>piyala</i> hotels and tea stalls functioning after 23:15 hours.
11 March	The Pakistani Consulate in Milan announced the first death of a Pakistani from COVID-19 in Brescia, Italy.
12 March	The Government of Sindh announced that the remaining Pakistan Super League () cricket matches at National Stadium, Karachi would be held behind closed doors.
13 March	<p>The Sindh Health Department identified a 52-year-old patient as positive, which marked the first case of local disease transmission, as the patient had travelled from Islamabad.</p> <p>Pakistan stopped all international flights, except those at Islamabad, Karachi and Lahore airports.</p> <p>President Dr. Arif Alvi advised the public to avoid participation in mass gatherings, handshaking or hugging.</p> <p>Federal Education Minister Shafqat Mahmood announced that all schools and universities would be closed until 5 April.</p> <p>Gilgit-Baltistan Government declared medical emergency in the region.</p> <p>Pakistan Cricket Board offered international players participating in PSL the liberty to leave for their home countries (if they wished so), while PSL continued as per schedule. The final match in Lahore, was rescheduled to 18 March instead of 22 March.</p> <p>Pakistan would completely seal its land border with Afghanistan, Iran and China from 16 March for at least two weeks.</p>
14 March	Pakistan Day Parade, scheduled to be held on 23 March, was cancelled.
15 March	Pakistan recorded the highest increase of COVID-19 cases in a single day (19); total tally rose to 53.
17 March	The knockout fixtures (both semi-finals and the final) of PSL were indefinitely postponed due to sudden spike in COVID-19 cases. The total number of cases in Pakistan rose to 237.
18 March	A total of 302 positive cases were confirmed in Pakistan in addition to first two deaths caused by the virus.
19 March	With confirmed cases jumping to 461, the provincial government of Balochistan declared a health emergency and imposed a ban on public transport.
21 March	<p>All international flights were suspended for two weeks.</p> <p>Screening started for domestic travellers at Karachi's airport.</p> <p>The Government of Sindh announced a lockdown in the province for 14 days from 23 March, ordering all public transport, markets, offices, shopping malls, restaurants, and public areas to be shut down.</p>
22 March	The federal government offered financial assistance to Sindh by allotting the province \$10 million from the non-development funds of the World Bank.
23 March	Sindh went in lockdown until 7 April.
24 March	<p>Azad Kashmir went in lockdown until 7 April.</p> <p>Punjab also went in lockdown on 24 March, but only until 6 April.</p>
25 March	Several restrictions were imposed in the capital territory of Islamabad. These included closing of the outpatient departments of hospitals, complete bans on intra-city, inter-district and inter-province public transport as well as gatherings in public and private places.

Table 1 – Timeline of COVID-19 Interventions in Pakistan

Future Outlook of COVID-19 in Pakistan

In recent days, various future projections have emerged about the trajectory that the virus is expected to undertake. American Board-certified rheumatologist Usman T. Malik has predicted that Pakistan can witness over 20 million coronavirus cases by June 1.¹¹ On the other hand, freelance journalist and commodity analyst Osama Rizvi and Engineer Ahsan Zahid concluded that there can be 80,000 cases in the country by mid-April.¹² However, the 80,000 figure does not coincide with Malik's figure for mid-April i.e. 8,160.¹³ The most alarming figures have been presented by Ammar Habib Khan. He believes that by the end of April, 90 million Pakistanis could be affected by the virus with 4.5 million of them to be of serious nature.¹⁴

Most Vulnerable Groups to COVID-19

There are several population segments which are at higher risk of severity and fatality from COVID-19 infection. These include elderly persons and those having pre-existing medical conditions such as high blood pressure, heart disease, lung disease, cancer, diabetes, and immunocompromised conditions. Table 2 presents a snapshot of vulnerable subgroups at potentially high risk of infection by COVID-19.

Metric	Number (in millions)	Year	Source
Population over 65	9.15	2018	World Bank ¹⁵
Hypertension	72.7	2017	Shafi, S. T., & Shafi, T. ¹⁶
People with Cardiovascular Disease	0.41	2016	World Health Organization ¹⁷

¹¹ Usman T. Malik, "CORONAPOCALYPSE!," *Dawn*, last modified March 22, 2020, <https://www.dawn.com/news/1542651>.

¹² Osama Rizvi, "Coronavirus In Pakistan: Data Shows Number Will Rise To 80,000 By Mid-April," *Naya Daur*, last modified March 16, 2020, <https://nayadaur.tv/2020/03/coronavirus-in-pakistan-data-shows-number-will-rise-to-80000-by-mid-april/>.

¹³ Usman T. Malik, "CORONAPOCALYPSE!,"

¹⁴ Ammar Habib Khan, "Can 90 Million Pakistanis get infected by COVID-19 in 40 Days? A SIR Model for Viral Growth of Coronavirus in Pakistan," *Business Recorder*, last modified March 21, 2020, <https://www.brecorder.com/2020/03/21/582219/can-90-million-pakistanis-get-infected-by-covid-19-in-40-days-a-sir-model-for-viral-growth-of-coronavirus-in-pakistan/>.

¹⁵ "Population ages 65 and above, total," *World Bank*, accessed March 25, 2020, <https://data.worldbank.org/indicator/SP.POP.65UP.TO>.

¹⁶ Salman T. Shafi, and Tahir Shafi, "A survey of hypertension prevalence, awareness, treatment, and control in health screening camps of rural central Punjab, Pakistan," *Journal of Epidemiology and Global Health* 7, no. 2 (2017): 135-140.

¹⁷ "Pakistan," *World Health Organization - Noncommunicable Diseases (NCD) Country Profiles, 2018*, accessed March 25, 2020, https://www.who.int/nmh/countries/pak_en.pdf.

Population with Chronic Obstructive Pulmonary Disease (COPD)	6.9	2018	Pakistan Chest Society ¹⁸
Population with Asthma	22.5	2011	Aga Khan University Hospital ¹⁹
People Who Develop Cancer at the Age of 75	24.30	2018	Global Cancer Observatory ²⁰
Population with diabetes	18.52	2016	World Health Organization ²¹
TOTAL	154.48		

Table 2 - Proportion of population in specifically vulnerable subgroups potentially vulnerable to COVID-19 severity risk in Pakistan

If coronavirus cases continue to spike, Pakistan's healthcare system will be over-stretched and will not be able to cope with the pandemic. Currently, there are 0.6 hospital beds per 1,000 people in Pakistan.²² This is below par as compared to other countries impacted by the pandemic as explained in Table 3.

Country	Hospital Beds (Per 1,000 People)
South Korea	11.5
France	6.5
China	4.2
Italy	3.4
UK	2.9
USA	2.8
Iran	1.5
Pakistan	0.6

Table 3 - Hospital beds (per 1,000 people) across several countries (Source: World Bank)

¹⁸ Imran Chaudhary, "More than 6.9 million people suffer from COPD in Pakistan," *Daily Times*, last modified December 7, 2018, <https://dailytimes.com.pk/330771/more-than-6-9-million-people-suffer-from-copd-in-pakistan/>.

¹⁹ Amar Guriro, "'15 million Pakistani children, 7.5 million adults suffer from asthma,'" *Pakistan Today*, last modified May 3, 2011, <https://www.pakistantoday.com.pk/2011/05/03/%E2%80%9815-million-pakistani-children-7-5-million-adults-suffer-from-asthma%E2%80%99/>.

²⁰ "Pakistan," *World Health Organization - International Agency for Research on Cancer*, last modified May 2019, <https://gco.iarc.fr/today/data/factsheets/populations/586-pakistan-fact-sheets.pdf>.

²¹ "Pakistan," *World Health Organization*, accessed March 25, 2020, https://www.who.int/diabetes/country-profiles/pak_en.pdf.

²² "Hospital beds (per 1,000 people)," *The World Bank*, accessed March 25, 2020, <https://data.worldbank.org/indicator/SH.MED.BEDS.ZS>.

Deconstructing Summer Temperatures as a Preventive Factor

There has been a growing debate about the possibility of COVID-19 dying out during summer. Qasim Bukhari and Yusuf Jameel, both from the Massachusetts Institute of Technology, concluded that “in countries with an average temperature greater than 64.4 F (18 C) and an absolute humidity greater than 9 g/m³, the number of COVID-19 cases is less than 6% of the global cases”. Absolute humidity is defined by how much moisture is in the air, regardless of temperature.²³ Chinese researchers also came to the conclusion that coronavirus was more

spread but will surely end up planking the economy.²⁶

A recent research by Pakistan Institute of Development Economics has found that poverty and unemployment are expected to rise in coming days. Poverty rate is expected to rise anywhere from 23.4 per cent to 58.6 per cent, depending on the level of economic recession.²⁷ Likewise, unemployment is expected to spike around 0.21 million to 0.62 million (high impact scenario) from a base of 3.86 million in 2019. Total unemployment might range from 4.07 million to 4.48 million depending upon the seriousness of economic crisis and longevity of the pandemic.²⁸

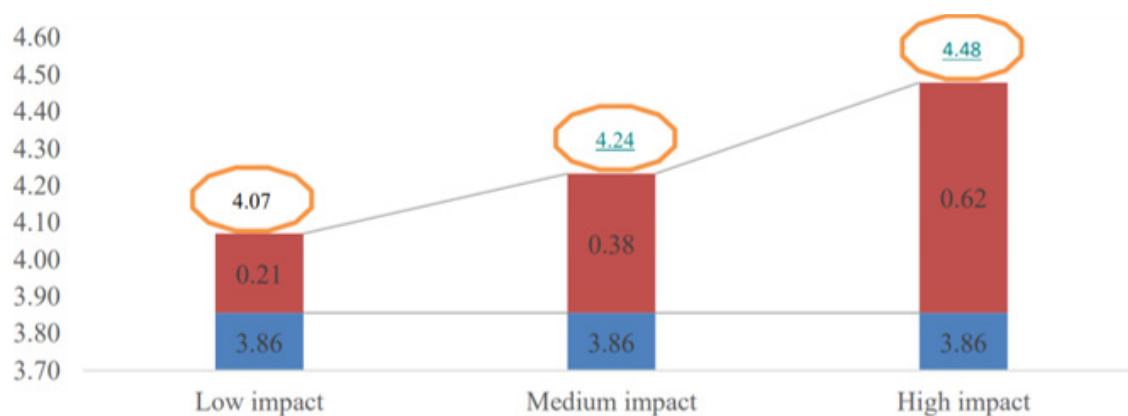


Figure 3 - Projected Unemployment in millions
(Source: PIDE)

contagious in northern China (low temperatures and relative humidity) than in warmer, more humid cities along the southeast coast.²⁴ Moreover, some other under-reviewed or unpublished studies have also indicated the possibility that the spread of the virus will slow down during summer.²⁵ However, experts have cautioned not to pursue public health actions against the pandemic by relying on meteorological factors driven hypothetical prevention.

Economic Implications of COVID-19

The success in combating corona invariably demands the slowdown of economic activity based on China model in Hubei province, but there is an apprehension that a hard containment approach may flatten the curve of disease

Experts have predicted that in case of the exponential growth of the virus, 18.53 million people will be affected by the loss of employment and the average monthly wage loss will be 260.9 billion rupees.²⁹ If the pandemic situation is not halted, the proportional monthly increase of wage loss will worsen the poverty crisis as the people living under the poverty line may double to 125 million.³⁰ It would not be an ordinary recession as the effect of slowdown will ultimately transfer to agriculture, wholesale and retail trade, manufacturing, transport and communication sectors. The daily wage workers and paid workers by piece rate will be the most

²³ Yasemin Saplakoglu, “Could the summer bring an end to COVID-19?,” *LiveScience*, last modified March 25, 2020, <https://www.livescience.com/warmer-weather-slow-coronavirus-spread.html>.

²⁴ Amanda Woods, “Studies show warm weather can slow coronavirus, but won’t stop it,” *New York Post*, last modified March 24, 2020, <https://nypost.com/2020/03/24/studies-show-warm-weather-can-slow-coronavirus-but-wont-stop-it/>.

²⁵ Qasim Bukhari and Yusuf Jameel, “Will Coronavirus Pandemic Diminish by Summer?,” last modified March 17, 2020, Available at SSRN: <https://ssrn.com/abstract=3556998> and Richard Gray, “Will warm weather really kill off Covid-19?,” *BBC*, last modified March 24, 2020, <https://www.bbc.com/future/article/20200323-coronavirus-will-hot-weather-kill-covid-19>.

²⁶ “The IMF explains the economic lessons from China’s fight against coronavirus,” *World Economic Forum*, last modified March 21, 2020, <https://www.weforum.org/agenda/2020/03/imf-economic-lessons-from-china-fight-against-coronavirus/>.

²⁷ “PIDE COVID-19 Bulletin 1,” *Pakistan Institute of Development Economics*, accessed March 27, 2020, <https://pide.org.pk/pdf/PIDE-COVID-Bulletin.pdf>.

²⁸ *Ibid.*

²⁹ Muhammad Nasir, Naseem Faraz and Mahmood Khalid, “Sectoral Analysis of the Vulnerably Employed COVID-19 and the Pakistan’s Labour Market,” *Pakistan Institute of Development Economics*, accessed March 28, 2020, <https://www.pide.org.pk/pdf/PIDE-COVID-Bulletin-4.pdf>.

³⁰ Mehtab Haider, “Economic fallout of COVID-19 in Pakistan: People under poverty line may double to 125 million,” *The News*, last modified March 27, 2020, <https://www.thenews.com.pk/print/635146-economic-fallout-of-covid-19-in-pakistan-people-under-poverty-line-may-double-to-125-million>.

affected by the lay-offs, close to 17.76 million in the scenario which the experts deem as most adverse.³¹

The government appears to be cognisant of the economic challenges and has sought \$3.7 billion in loan from the International Monetary Fund, the World Bank, and the Asian Development Bank to mitigate the economic fallout.³² At the same time, the PTI government is also seeking a debt relief of its liabilities from foreign creditors who have agreed to extend a moratorium.

Prime Minister Imran Khan has announced a relief and stimulus package amounting to Rs. 1.2 trillion to support the segments that would be unfavourably impacted by the phased lockdown policy of the government.³³ The safety net initiatives under the Ehsaas Program have been expanded to include 10 million people who shall be given an allowance of Rs. 12,000.³⁴ Even though the financial stimulus package has been well received by the public, the usefulness of Rs. 50 billion earmarked for the utility stores remains debatable.

Social Impacts of COVID-19

Pandemics have been found to alter social organisations and events.³⁵ However, as national economies and health sectors become the frontline targets of pandemics, social implications of pandemics lose focus.³⁶ A sudden hike in the morbidity and mortality rate, resulting from pandemics can make alterations to societal dynamics.³⁷ COVID-19 is also expected to markedly reshape human's interaction with the society in several ways, across the globe and within Pakistan.

Social Distancing

Social distancing is the most commonly practiced control measure against COVID-19, mainly because a medical treatment of the disease remains undiscovered. Social distancing seeks to reduce the transmission of infectious diseases in order to reduce the severity of the

³¹ Muhammad Nasir, Naseem Faraz and Mahmood Khalid, "Sectoral Analysis of the Vulnerably Employed COVID-19 and the Pakistan's Labour Market,"

³² Shahbaz Rana, "Pakistan to seek \$3.7b more in loans to offset virus impact," *The Express Tribune*, last modified March 26, 2020, <https://tribune.com.pk/story/2184413/2-pakistan-seek-3-7b-loans-offset-virus-impact/>.

³³ "PM Imran announces financial stimulus package to mitigate economic fallout from Covid-19 outbreak," *Dawn*, last modified March 24, 2020, <https://www.dawn.com/news/1543411>

³⁴ "Ehsaas Emergency Cash Programme to benefit 10 m corona affectees: Dr Sania," *Business Recorder*, last modified March 25, 2020, <https://www.brecorder.com/2020/03/25/583064/ehsaas-emergency-cash-programme-to-benefit-10-m-corona-affectees-dr-sania/>.

³⁵ Stephen C Schoenbaum, "The Impact of Pandemic Influenza with Special Reference to 1918," *International Congress Series*, 2001: 43-51.

³⁶ Ibid.

³⁷ John Paget, "The influenza pandemic and Europe: the social impact and public health," *Italian Journal of Public Health*, 2009: 257-259.

epidemic. The phenomenon has globally become the order of the day as people avoid mass gatherings and try to maintain physical distance of around two meters.³⁸ Having greatly reduced person-to-person physical proximity, some experts predict that social distancing might become a norm in a post COVID-19 world.³⁹ Research suggests that if the costs of social distancing outgrow the benefits, people are less likely to observe it, thereby reducing the effectiveness of this preventive measure.⁴⁰ Government of Pakistan has taken up several measures to encourage social distancing in the country. These include imposition of lockdowns across major parts of the country coupled with deployment of Army under the Article 245 of Constitution.⁴¹ Events involving congregation have been formally called off.⁴² Awareness campaigns have been launched across mass media in addition to social media. Also, High Courts in Islamabad and Lahore have released prisoners involved in minor crime cases to mitigate the spread of the disease.⁴³ However, the practice is not being observed in optimal spirit across the country mainly due to lack of awareness and interest among the general masses.⁴⁴

Environment

The emergence of infectious diseases and epidemics is attributed to human-led invasion of wildlife ecosystems and environmental damage. Environmental degradation is amongst the most significant non-traditional global security threats. Interestingly, the onset of the coronavirus outbreak has brought a decline in the emission of carbon dioxide and nitrogen dioxide gases due to reduced energy consumption, industrial

³⁸ Felix Richer, "Social Distancing is the Order of the Day," *Statista*, last modified March 16, 2020, <https://www.statista.com/chart/21129/google-searches-for-social-distancing/>.

³⁹ "Coronavirus Will Change the World Permanently. Here's How," *Politico*, last modified March 19, 2020, <https://www.politico.com/news/magazine/2020/03/19/coronavirus-effect-economy-life-society-analysis-covid-135579>.

⁴⁰ Timothy C. Reluga, "Game Theory of Social Distancing in Response to an Epidemic," *PLoS Comput Biol*. 6, no. 5 (2010).

⁴¹ "Lockdown in Pakistan: Army called in for help amidst coronavirus outbreak," *Geo News*, last modified March 25, 2020, <https://www.geo.tv/latest/278812-government-calls-in-pakistan-army-troops-amid-coronavirus-outbreak>.

⁴² "Nation celebrates Pakistan Day with pledge to fight against coronavirus pandemic," *The Nation*, last modified March 23, 2020, <https://nation.com.pk/23-Mar-2020/nation-celebrates-pakistan-day-with-pledge-to-fight-against-coronavirus-pandemic>.

⁴³ "Court moved for release of prisoners over virus risk," *The News*, last modified March 25, 2020, <https://www.thenews.com.pk/print/634203-court-moved-for-release-of-prisoners-over-virus-risk>.

⁴⁴ Ali Raza, "Lockdown orders fail to keep people indoors," *The News*, last modified March 23, 2020, https://www.thenews.com.pk/print/633137-lockdown-orders-fail-to-keep-people-indoors?_ga=2.213104724.1799734172.1585061757-1543999734.1585061753.

activity and travel restrictions.⁴⁵ In Pakistan, however, the threat of environmental contamination resulting from inappropriate medical waste management prevails. Pakistan's National Action Plan for coronavirus disease has stipulated measures to reduce this threat.⁴⁶ However, the effective implementation and outcomes of these measures shall be revealed with time.

Food Insecurity

Food insecurity is understood as people's limited access to nutritious food due to factors like inadequate food supplies, reduced incomes, or increased job insecurity.⁴⁷ In the current situation, factors like labour shortages, transport restrictions, limited access to markets and disruptions in supply chains coupled with panic buying and an overall decline in purchasing power are expected to lead to food insecurity. As of 2019 estimates, malnutrition is already highly prevalent in Pakistan with around 60 per cent of the population facing food insecurity.⁴⁸ Pakistan, as a low-income developing state is already vulnerable to food shortages. The 2019 third-quarter report of the State Bank of Pakistan signalled the emerging food shortage due to population increase and climate change.⁴⁹ Pakistan's Special Assistant on National Health Services, Dr. Zafar Mirza has announced the government's intention to develop a food security plan, seeking to mitigate the threat of food shortage resulting from COVID-19 crisis.⁵⁰ However, the plan is yet to be announced. The government of Pakistan is attaching prime focus to food security during the COVID-19 crisis.⁵¹ On 24 March, the Prime Minister announced the government's relief programme which extended PKR 1.2 trillion for the provision of essential food and utility

⁴⁵ "How changes brought on by coronavirus could help tackle climate change," *The Conversation*, last modified March 17, 2020, <https://theconversation.com/how-changes-brought-on-by-coronavirus-could-help-tackle-climate-change-133509>. and "Coronavirus pandemic leading to huge drop in air pollution," *The Guardian*, last modified March 23, 2020, <https://www.theguardian.com/environment/2020/mar/23/coronavirus-pandemic-leading-to-huge-drop-in-air-pollution>.

⁴⁶ "National Action Plan for Corona virus disease (COVID-19) Pakistan," *Government of Pakistan - Ministry of National Health Services, Regulations & Coordination*, last modified February 29, 2020, <https://www.nih.org.pk/wp-content/uploads/2020/03/COVID-19-NAP-V2-13-March-2020.pdf>.

⁴⁷ Simona Beltrami, "How to minimize the impact of Coronavirus on food security," *World Food Programme*, accessed March 24, 2020, <https://insight.wfp.org/how-to-minimize-the-impact-of-coronavirus-on-food-security-be2fa7885d7e>.

⁴⁸ "FOOD ASSISTANCE FACT SHEET – PAKISTAN," *USAID*, last modified September 30, 2019, <https://www.usaid.gov/pakistan/food-assistance>.

⁴⁹ Farahnaz Farooq Ahmed, "Food Insecurity: An Imminent Threat to Pakistan," *The Daily Times*, last modified February 7, 2020, <https://dailytimes.com.pk/553850/food-insecurity-an-imminent-threat-to-pakistan/>.

⁵⁰ "Food security plan promised by SAPM Zafar Mirza," *The News*, last modified March 16, 2020, <https://www.thenews.com.pk/print/629747-food-security-plan-promised-by-sapm-zafar-mirza>.

⁵¹ "PM Imran Khan unveils Rs1.2tr relief package Fuels fall by Rs15 a litre," *The News*, last modified March 25, 2020, <https://www.thenews.com.pk/print/634158-pm-imran-khan-unveils-rs1-2tr-relief-package-fuels-fall-by-rs15-a-litre>.

items along with tax reduction on food items.

Mental Health Issues

Apart from physical health, pandemics considerably affect individuals' mental health. Psychological reactions might include stigmatisation of affected individuals, health care officials and state authorities.⁵² The immediate reaction to COVID-19 has been observed in the form of rising xenophobia against Asians, apart from increased levels of anxiety among people. Mental health issues are already wide-spread in Pakistan, with around 50 million citizens suffering some form of mental disorder.⁵³ A hike in COVID-19 related morbidities and mortalities might determinately affect the condition of mental health among the citizens. A recent study suggests that cases of depression, anxiety, insomnia, and distress rise among medical health workers who treat the patients of COVID-19.⁵⁴ Mental health issues that are expected to unleash in near future include depression, anxiety, increased levels of contamination obsessions among the patients of obsessive compulsive disorder (OCD) and Ekblom Syndrome.⁵⁵

Remote Work

Pandemics have been found to affect day-to-day professional activity due to sickness related absenteeism, disrupted work schedules and decreased levels of workplace productivity.⁵⁶ However, the COVID-19 has set the trend of remote work including working from home and distant learning.⁵⁷ Several telecommunication companies, private offices and international governmental and non-governmental organisations operating across Pakistan have initiated "work from home" as an alternative to routine functioning. Similarly, educational institutions have also embarked upon online education. These initiatives are aimed at mitigating the lag that can be caused by provincial-level lockdowns.

⁵² Nidal Moukaddam and Asim Shah, "Psychiatrists Beware! The Impact of COVID-19 and Pandemics on Mental Health," *Psychiatric Times*, March 15, 2020, <https://www.psychiatristimes.com/psychiatrists-beware-impact-coronavirus-pandemics-mental-health/page/0/1>.

⁵³ Dr. Rafi Amir-ud-Din, "Dispelling myths about mental health," *The News*, last modified February 16, 2020, <https://www.thenews.com.pk/tns/detail/614383-dispelling-myths-about-mental-health>.

⁵⁴ Jianbo Lai, Simeng Ma, Ying Wang, "Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019." *JAMA Network 3*, no. 3 (2020).

⁵⁵ Paul Daley, "We face a pandemic of mental health disorders. Those who do it hardest need our support," *The Guardian*, last modified March 24, 2020, <https://www.theguardian.com/commentisfree/2020/mar/25/we-face-a-pandemic-of-mental-health-disorders-those-who-do-it-hardest-need-our-support> and Nidal Moukaddam and Asim Shah, "Psychiatrists Beware! The Impact of COVID-19 and Pandemics on Mental Health,"

⁵⁶ "Economic and social impact of epidemic and pandemic influenza." *Vaccine*, 2006.

⁵⁷ "The Coronavirus Is Creating a Huge, Stressful Experiment in Working From Home," *The Atlantic*, last modified March 13, 2020, <https://www.theatlantic.com/ideas/archive/2020/03/coronavirus-creating-huge-stressful-experiment-working-home/607945/>.

This development is expected to considerably alter the patterns of operations in many organisations in future.⁵⁸

Recommendations

Over the past few days, a number of recommendations have been shared to deal with this pandemic.⁵⁹ In addition to those recommendations, some additional recommendations are as follows for government agencies to deal with COVID-19:

1. Involving Health Professionals in Decision-Making – In order to better cope with the pandemic, it is imperative that health professionals should have an instrumental role in decision-making. Bureaucracy at lower levels should support the professionals in executing better responses against COVID-19

2. Transparency about the coverage of Ehsaas Program - For assisting daily wagers and those who are unemployed, the federal government needs to explain the methodology through which it will ensure that needy people are assisted through the program.

3. Effective Communication - It is important that government should apprise citizens about COVID-19 on regular basis to avoid creating an information vacuum. A dedicated one-stop information repository should be created so to communicate real-time, reliable information to citizens, journalists, experts, foreigners, etc.

4. Joint Political Front - Political cohesion and cooperative collaboration between the government and the opposition needs to be established. A joint political front against the COVID-19 outbreak is highly pertinent to ensure an optimal political performance against the outbreak.

5. Communicating in Local Languages - Government's communication team should employ all the regional languages for creating awareness about COVID-19 and the adoption of preventive measures. In this regard, the widespread use of radio should be undertaken to target rural population.

6. Local Production of COVID-19 Testing Kits - Authorities can stimulate instant local production of coronavirus testing kits in the industrial hubs of Sialkot and Gujranwala to start mass testing.

7. Engaging private organisations - Government authorities should seek support of private charitable organisations to reach out to daily wage earners, blue-collar workers or those who have been unemployed as a result of coronavirus outbreak. Additionally, private

e-commerce stores should be engaged for door-to-door supply of essential food and medical supplies.

8. Tax Cuts for Producers of Essential Goods - Tax cuts for producers of essential goods to keep the supply chains active and to ward off the threat of sudden recession and unemployment amid the pandemic.

9. Formulation of a Comprehensive Plan for Circular Economy - A comprehensive plan to ascertain the availability of food and other utility products at reasonable and affordable prices along with the continuity of circular economy in the longer run needs to be devised.

10. Essential staffers staying at workplaces - Government authorities should formulate plans to ensure that staff belonging to essential services should reside in or near working places to reduce commute time and remove possibility of human to human transmission.

11. Creating Volunteer Teams at Union Council Level - At union council level, small teams of volunteers should be setup to coordinate effective delivery of essential food and medical supplies to those in need. Such teams should be engaged in countering disinformation on social media platforms.

12. Countering and Blocking Disinformation - Government should create a team which should counter/block disinformation and conspiracy theories related to COVID-19 on real-time basis at Pakistan Telecommunication Authority. The rules of engagement and working modalities of such a team need to be properly formulated to avoid misuse of power. Additionally, fact-checkers should also be supported in this regard.

13. Delivery of Essential Goods - Government should incentivize delivery services to deliver groceries and other essential items on the doorsteps of people so that majority of people would avoid going out to purchase them.

14. Online Portal for Mental Health Assistance - Government should create an online portal of psychologists and psychiatrists to aid mentally struggling people in self-isolation and self-quarantine at homes.

15. Engaging Additional Medical Staff - Considering the growing need of medical staff, those medical students which are either in second last or last academic year should be engaged by government agencies to cope with the pandemic.

16. Incorporating Non-traditional Security Threats - It is high time that Pakistan expands its national security narrative to incorporate the evolving non-traditional security threats. The state needs to brainstorm and devise appropriate responses and strategies to security threats arising from issues other than traditional inter-state security concerns.

⁵⁸ Rafia Zakaria, "The world after Covid-19," *Dawn News*, last modified March 25, 2020, <https://www.dawn.com/news/1543506/the-world-after-covid-19>.

⁵⁹ Usman T. Malik, "CORONAPOCALYPSE!,"

Conclusion

With the passage of the first phase of the pandemic, it remains imperative for federal and provincial governments to synchronise their efforts in a more robust and consolidated manner to decrease the spread of COVID-19. The country faces a calamity of great proportion and a unified political front will play an instrumental role in dealing with this situation in a more efficient manner. Failure to do so can cause significant losses to Pakistan across various sectors which will take years to recover.