Comparing COVID-19 Pandemic Responses of Three South Asian Countries - Bhutan, Sri Lanka, and Bangladesh

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Abstract

South Asia has been hit hard economically by the COVID-19 pandemic, while apparently having done better in terms of mortality and morbidity than many Western countries. This article compares the COVID-19 responses of three South Asian countries, namely Bhutan, Sri Lanka, and Bangladesh. Robust and agile containment efforts along with spirited community cooperation appear to be the key ingredients for Bhutan's success. Early implementation of lockdown and other measures along with rigorous tracing, testing, and isolation helped Sri Lanka limit much of its cases to clusters and quarantine centres. On the other hand, Bangladesh's poorer performance can be explained with a weaker "trace, test, and treat" strategy, coupled with high population density and less effective implementation of control measures. While frank comparisons between countries are inaccurate given the differing contexts, useful insights can nonetheless emerge from comparative analyses of country responses.

Keywords: COVID-19, Coronavirus, South Asia, pandemic response, Bhutan, Sri Lanka, Bangladesh

Introduction

The worldwide Coronavirus (COVID-19) pandemic that originated from Wuhan, China in December 2019 is nearly a year old now. Until the time of writing, there were 53,109,762 cases, 37,224,907 recoveries, and 1,299,651 deaths from COVID-19 worldwide. Much of Europe and the United States are seeing a second wave of infections, which is worse than the first wave although less severe in terms of mortality rates. On the other hand, infections are declining in India and some of it's South Asian neighbors.

South Asian countries have suffered significant economic consequences due to the pandemic, even though mortality and morbidity rates have reportedly been better than many western nations. Like any other region, it comes with its high and low performers in terms of tackling COVID-19. Here, we look at three South Asian nations, namely Bhutan, Sri Lanka, and Bangladesh, and compare their responses to the COVID-19 pandemic roughly until October 2020.

Bhutan is a landlocked Himalayan nation with an area of 38,394 sq. kms, and a population of 754388 in 2018. It is the most sparsely populated of the three countries under comparison. Bangladesh is a South Asian nation with an area of 148,460 sq. kms and a population of around 162 million, making it the eighth most populous country in the world and the most populated among the countries under comparison. Sri Lanka is an island nation located south of India in the Indian Ocean, with a landmass of 65,610 sq. kms and a population of around 22 million. Table 1 captures a snapshot of the pandemic situation in the three countries as on November 11, 2020.

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Country	Total Cases	Total Deaths	Total Cases per Million	Total Deaths per Million	Total Tests per Thousand
Bhutan	364	0	471.74	0	-
Sri Lanka	14715	41	687.191	1.915	29.281
Bangladesh	423620	6108	2572.237	37.088	15.074

Table 1: COVID-19 picture in Bhutan, Sri Lanka, and Bangladesh as on November 11, 2020

(Data from *Our World in Data*)

Brief Time-lines and Country Responses

Bhutan

Figure 1 shows the trend of daily new COVID-19 cases in Bhutan till October 2020. The first confirmed case of COVID-19 in Bhutan, a 76 year old American male tourist who had travelled from India, was detected on 6 March 2020.^[1] In response, entry of foreign tourists was restricted for two weeks and schools were shut in some areas. On March 20, the second COVID-19 case was detected, who was a primary contact of the index case.^[2] Oversees suspects and primary contacts of positive cases were put under institutional quarantine for 14 days since March 14, which was extended to a 21 day quarantine since March 31, on the suspicion that positive cases may emerge even after 14 days.^[3] Aggressive testing and contact tracing were adopted, and around 54 flu clinics were established across the country to facilitate active surveillance. A national response fund was set-up on March 9.^[4] Earlier, in January, surveillance systems were activated at all points of entry, and a National Preparedness and Response Plan was prepared in late February.^[3,5]



Figure 1: Daily new COVID-19 cases in Bhutan till October 2020 (Prepared using data from *Our World in Data*)

Between 22-24 March, international borders were sealed, and import of betel nut, betel leaf and certain other food commodities were banned,^[6] allowing passage only for essential items. In view of the rise in number of cases in neighbouring India, border controls and surveillance were heightened in early April. Around the same time, 309 Bhutanese from India and the Maldives were evacuated and institutionally quarantined in Thimphu, the capital.^[7]

Towards the end of April, a \$5 million COVID-19 Emergency Response and Health Systems Preparedness Project was initiated

by the government together with the World bank.^[8] Until May 7, more than 11,000 people were tested (2400 with Reverse Transcription-Polymerase Chain Reaction [RT-PCR]; 9000 with rapid tests), 4300 discharged from institutional quarantine, and 1500 were then in quarantine.^[9] A number of cases have been from among returnees from the Middle-east. The Ministry of Health also received a grant of US \$400,000 from the Republic of Korea for procuring testing kits and other response measures.^[10]

In August, a 27 year old woman travelling from the middle-east tested positive after having completed institutional quarantine, which led to the first national lockdown in Bhutan.^[11] A cluster of cases was detected among loaders in Phuntsholing, which was soon brought under control.^[12] The national lockdown was relaxed in September.

Sri Lanka

Figure 2 shows the trend of daily new COVID-19 cases in Sri Lanka till October 2020. The first case was in the form of a 43 year old Chinese woman, detected on 27 January and admitted to the Infectious Disease Hospital.^[13]



Figure 2: Daily new COVID-19 cases in Sri Lanka till October 2020 (prepared using data from Our World in Data)

extensions began, which were relaxed on 11 May.[17]

Before this, screening of passengers began at the Colombo international airport, and a 22 member National Action Committee to control COVID-19 had been set up.^[14] The first case among local nationals was detected on March $10.^{[15]}$ Institutional quarantine for travelers from Italy, Iran, and South Korea was started since the first week of March. On March 22, entry of all passenger flights and ships were banned.^[16] Around 45 quarantine facilities had been constructed by the end of March with active involvement of the military. March 16 was declared a public holiday, and a series of lockdown

Aggressive educational campaigns were started early to promote hygiene and self-quarantine measures. Work from home orders were promulgated; special precautions were advised for mothers, children, and the elderly; and measures to deter overcrowding and panic buying and facilitate home delivery of goods were taken. Sri Lanka was also among the first countries to arrange for prompt repatriation of stranded citizens abroad.^[18]

A 'COVID-19 Healthcare and Social Security Fund' open for foreign and local donations was set-up in late March.^[19] The government also appropriated 0.1% of its GDP for quarantine and containment activities, and donated \$5 million to the SAARC COVID-19 Emergency Fund.^[20]

A large percentage of cases in the country came from quarantine facilities and clusters in densely populated areas. This included the Welisara navy camp cluster in April, where nearly 4000 sailors and their families were quarantined;^[21] a cluster emanating from the Kandakadu rehabilitation Centre in July; and from Minuwangoda and Divulapitiya in the Gampaha District in October, emanating from a garment factory. The latter marked a second wave of infections and resulted in fresh lockdown and police curfews. A cluster was also reported from the Peliyagoda fish market in late October.

Bangladesh

Figure 3 shows the trend of daily new COVID-19 cases in Bangladesh till October 2020. The first three cases in Bangladesh were reported by the country's Institute of Epidemiology Disease Control and Research (IEDCR) on March 8.^[22] Earlier, since Jan 22, screening of travelers arriving from China was started, and on February 1, 312 Bangladeshis evacuated from Wuhan, China were guarantined in Dhaka.^[23] On February 2, onarrival visas for Chinese visitors were suspended, followed by those of other countries in March. A national Committee under the Ministry of Health was constitut-



Figure 3: Daily new COVID-19 cases in Bangladesh till October 2020 (prepared using data from *Our World in Data*)

ed for tackling the pandemic, which also released national guidelines on COVID-19 clinical management. [24,25]

Number of infections witnessed a surge in April after remaining low in March. A lockdown termed a "general holiday" began on March 23 and extended till 30th May.^[26] Rohingya refugee camps in Cox's Bazar presented a special concern, and on 9th April, a complete lockdown was imposed on these refugee camps.^[27] The need to resume economic activity and save livelihoods prompted the lockdown relaxation in May, even though cases were on the rise. International flights resumed since mid-June after over three months of suspension.^[28]

On September 1, the final curbs on public movement were removed.^[29] Restrictions at different points during the lockdown included prohibitions on staying outdoors (except in emergencies) from 10 pm to 5 am; closure of shops, malls, private and public offices; prohibitions on mass gatherings, meetings; shutting of educational institutions; and restrictions on public transport. Measures to spread awareness on social distancing, hygiene, and self-isolation and quarantine were adopted. The lockdown has been held as a relaxed one,^[30] and low levels of testing, instances of treatment denial, and loose observance of directives on social distancing and isolation have been reported in the country.

Comparative Analysis and Policy Perspectives

Figure 4 captures the trends of Government Response Stringency Index for Bhutan, Sri Lanka, and Bangladesh till October 2020.

All the three nations are developing countries in the lower middle income bracket. Bhutan is a democratic constitutional monarchy, Sri Lanka is a semi-presidential representative democratic republic, while Bangladesh is a parliamentary representative democratic republic. One major difference between them is in terms of population: Bangladesh being the most densely populated, while Bhutan has the least total population and population density.

The countries under consideration have displayed different degrees of success in tackling the COVID-19 pandemic, despite broadly similar underlying modalities of response. Bhutan and Sri Lanka have been cited as success stories, while Bangladesh has been one of the worst-affected nations in South Asia. A frank comparison with the goal of deriving sweepingly practicable lessons would be inaccurate given the differing contexts. Nonetheless,



Figure 4: COVID-19 Government Response Stringency Index for Bhutan, Bangladesh, and Sri Lanka till October 2020 (Source: Hale, Webster, Petherick, Phillips, and Kira [2020]. Oxford COVID-19 Government Response Tracker. Obtained online from Our World in Data. Retrieved from: https://ourworldindata.org/grapher/covid-stringency-index?tab=chart&time=2020-01-22..2020-10-30&country=BTN~LKA~BGD) a comparative analysis of their responses to the pandemic could provide some important insights that could be relevant particularly for lower middle income countries.

First, let us consider the vulnerabilities of these countries. All of them are in close proximity to India, a high case-load country, with Bangladesh and Bhutan sharing long borders with India. They also have close trading ties with India, which predisposes them to importation of infection. Bhutan, in particular, is landlocked between

India and China, the latter being the country where the COVID-19 pandemic originated. Its economy is also reliant considerably on tourism. Bhutan has a porous border with India and is the recipient of significant Indian support in the form of supplies and aid. Another vulnerability is that of an under-resourced health system that is typical of many lower middle income countries. Bangladesh faces considerable shortage and maldistribution of doctors and other health personnel, and had a hospital bed: population ratio of a mere 0.8:1000 in 2015. ^[31] Bhutan in particular has a severe shortage of doctors. Sri Lanka fares better in these respects, and its hospital bed:population ratio is higher than the average for middle income countries. Nonetheless, balancing pandemic-imposed demands with regular health needs poses a formidable challenge for the health systems of all these countries. High population density is a major challenge for Bangladesh, less so for Sri Lanka, and least for Bhutan (although population is considerably concentrated in urban areas).

A robust early response to deter the spread of infection is vital during a pandemic, because even the most robust health systems cave in to a rampaging rise in cases, as seen in the case of many advanced Western nations during the COVID-19 pandemic. If anything, this is all the more important for developing, lower middle income nations with weaker health systems and more economically vulnerable societies. Early and effective response and containment efforts can thus predict, to a certain extent, the success of a country in tackling the pandemic. After reporting of the first case in Bhutan, all contacts of the primary case were immediately traced and placed under institutional quarantine. A rigorous contact tracing and testing strategy has been a major asset of Bhutan. ^[3] All oversees travelers and primary contacts of positive cases were placed in facility quarantine, and tested at entry and again at exit from quarantine. The quarantine duration was even extended from 14 to 21 days with a view to ensure absence of infectivity at exit. Quarantine facilities were supplied with all necessary amenities and all costs borne by the government. Similarly, any case of flu-like illness was tested for COVID-19, and every positive case managed in a health care facility. Also, Bhutan took the difficult step of suspending border activity despite being heavily reliant on imports from countries like India,^[5] and expenditures from non-essential activities from different sectors were re-prioritized for COVID-19 response.^[4] These measures helped prevent overburdening of its curative health care that is characterized by limited critical care capacity and manpower shortages - while enabling it to avoid blanket lockdowns for the most part. This was while the country had no experience from the SARS epidemic of 2003.

Similarly, in Sri Lanka, surveillance activities were bolstered to identify cases of respiratory illnesses between the discovery of the first case in January and the further increase of cases in March.^[32] A lockdown was implemented early and stringently, and a rigorous strategy of contact tracing, testing, and isolation was followed with the help of community health workers and the military, including random RT-PCR testing in densely populated areas to detect possible community spread.^[18] Important measures like social distancing and mask use were applied early along with effective public awareness campaigns. Such measures helped Sri Lanka limit most of its cases to quarantine centres and clusters in densely populated areas. An important characteristic of both Bhutan

and Sri Lanka has been the emphasis on institutional quarantine, which could help in better monitoring of compliance than home quarantine.

Figure 5 and 6 show the trends in daily new COVID-19 tests per 1000 people in Sri Lanka and Bangladesh respectively till October 2020. In Bangladesh, the "trace, test, and treat" strategy has been less rigorous. Despite cases arising countrywide, the IEDCR in Dhaka was for a long time the sole authority for testing of samples.^[33] Lockdowns were applied with a rather relaxed approach,



using data from *Our World in Data*)



and directives on social distancing, activity restrictions, and quarantine were often disregarded. In one instance, 142 returnees from Italy were allowed to go for selfisolation after protests against institutional guarantine.^[34] High population density acted as an impediment to physical distancing. This was compounded by social behavioral patterns and ineffective public risk communication.^[35] Administrative failure, weak political accountability, and weak capacity of state institutions due to years of under-investment have been blamed for the failures in implementing strict lockdowns and

Figure 6: Daily new tests per 1000 people in Bangladesh till October 2020 (prepared using data from *Our World in Data*)

ensuring compliance with government directives. Further, a lack of coordination within the government and a general lack of direction have been held responsible for the failure to mount a robust and concerted response to the pandemic.

In handling emergencies, the role of public trust in government is pivotal. Further, a spirit of community and widespread community engagement are fundamental to robust response efforts. Through his address to the nation on March 22, the King of Bhutan inspired a strong sense of solidarity and collective action towards the unprecedented public health emergency. Nearly every section of the society, including farmers, lay public, hoteliers, and businesses, contributed in pecuniary and non-pecuniary terms to combat the pandemic.^[4] Also, a supportive opposition facilitated government efforts rather than politicizing the pandemic response. These have valuable lessons to offer with respect to politics and public administration.

It is also important to underscore that adequate health system capacity and essential health care coverage are vital when faced with public health emergencies. Bhutan has a tax-financed system of public health care delivery with an emphasis on primary health care. There is a constitutional mandate for the state to provide free basic health care, and significant progress has been made over the years in terms of population health gains and financial risk protection (share of out-of-pocket spending on health was 12 percent in 2014), although inequities in health services access and utilization do exist.^[36] Sri Lanka exhibits considerably robust health system capacities, and is often hailed as having one of the best health systems among developing nations. Years of focus on the public health system has fostered good health outcomes and health equity at rather low levels of spending, making it an exemplar of "good health at low cost" - although a for-profit private sector has expanded considerably in recent years. Bangladesh has made considerable progress in terms of the Millennium Development Goals 4 and 5 (reducing under-five mortality and maternal mortality), and also in other important areas like poverty reduction, primary school enrolment, and reducing incidence of communicable diseases.^[37,38] However, it has one of the lowest levels of public spending on health, accounting for less than one percent of its GDP. This translates to weak public health sector capacities. In 2016, Bhutan and Sri Lanka spent 3.45 percent and 3.89 percent of their GDPs respectively on health,^[39,40] while Bangladesh spent 2.37 percent (declining from about 2.78 percent in 2011),^[41] with out-of-pocket health spending accounting for the major share.

Conclusion

To conclude, it is necessary to reiterate that direct comparisons between countries come with their share of inaccuracies owing to differing contexts. Such contextual disparities not only constrain the choice of the response modalities adopted, but also determine the ability to implement similar modalities across different countries and their effectiveness. Also, many of these contextual factors are a result of years of accretion and are not amenable to immediate change. It is also important to note that pandemic response calls for concerted action from many actors. The role of the health system, though important, is a subset of the overall pandemic response mounted together with multiple other sectors, and can therefore be facilitated or undermined by their actions. Nonetheless, useful lessons can emerge from comparative analyses of country responses, which nations could choose to customize and apply according to their individual contextual considerations and peculiarities - not just in the immediate term but also in the long run.

The threat of COVID-19 is still far from over. At the time of writing this article, Sri Lanka is in the midst of a second wave of Coronavirus cases. Bangladesh shows a general downward trajectory in its first wave and a second wave is being anticipated around winter, while a stable picture emerges from Bhutan. The forthcoming months could bring a number of challenges, and the experience gathered thus far, both domestically and internationally, could be crucial in tackling them. Countries which have responded successfully with appropriate measures are also relatively well placed to repeat such success in future. Countries which haven't been able to do so, however, have an opportunity to learn from their own example and that of others, and apply the relevant and practicable lessons.

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