



Research Article

NARROW ESCAPE OF NEIGHBOURS OF CHINA FROM COVID-19 AND LESSONS TO BE LEARNT FROM THEM- A REVIEW

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ARTICLE INFO

Article History:

Received 10th April, 2020

Received in revised form 2nd

May, 2020

Accepted 26th June, 2020

Published online 28th July, 2020

Key words:

International Border, Least Affected, Corona Free, COVID-19, China.

ABSTRACT

China shares its international border with, globally highest number of, 14 states. The present menace of COVID-19 began in Wuhan China. Within just few weeks it spread to most of the globe. The neighbors of China were at the risk of getting exposed to this infection first, particularly at the time when the officials in China and its surroundings didn't exactly know what disease they were dealing with. At present whole world has been suffering. Even the most developed nations have got impacted heavily. But surprisingly, under such conditions, there have been certain nations particularly the closest neighbours of China that have contained the disease. The purpose of this review article is to limelight the narrow escape of these closest neighbors of China that have ensured containment of this COVID-19 so as to get lesson for the countries that are heavily impacted at present or are just beginning to experience exponential growth of COVID-19.

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INTRODUCTION

China shares its international border with, globally highest number of, 14 states comprising Afghanistan, Bhutan, India, Kazakhstan, Laos, Mongolia, Myanmar, Nepal, North Korea, Russia, Tajikistan and Vietnam. In addition there is a 30 Km border with special administrative region of Hong Kong, which was a British dependency before 1997 and a 3 Km border with Macau, a Portuguese territory until 1999. With a land border of 22,117 Km in total, it also has the longest land border of any country 1.

A novel type of pneumonia appeared in Wuhan China in December 2019. On 31 December, 2019 WHO was alerted to the emergence of cases of this pneumonia of unknown etiology. By the end of January 2020 thousands of confirmed and suspected cases with 213 deaths were reported throughout China. More worryingly, 106 cases were also confirmed abroad in neighbours such as Vietnam and in some other countries 2.

This disease came to be known as COVID-19 and the causative agent was found to be Severe Acute Respiratory Syndrome Coronavirus-2 (SARS Cov-2) 3. Presently, according to WHO, as on 25th July, 2020, there are 1,55,81,009 number of confirmed COVID-19 positive cases globally and it has spread to 216 nations. The widespread infection has proved that it is a historical concern of serious nature.

Its gravity can be estimated from the fact that besides other losses i.e of social, political or economic nature, the total deaths as on July 25th, 2020 are equal to 6,35,173, which being more than the total deaths due to 1st and 2nd World War combined together (World War 1st + World war 2nd = 116516+405399= 521915) or total deaths due to civil war (6,20,000) 4. Analysis of, the list of top 10 most affected nations by WHO (Table 1), amazingly shows that China is not there. The two bordering neighbours of China i.e Russia and India occupy 3rd and 4th position.

Table 1 showing Top 10 Most Affected Nations in the world in terms of no. of positive cases

Table with 5 columns: S.No., Country, New_cases on 25-07-2020, Cumulative_cases on 25-07-2020, New_deaths on 25-07-2020, Cumulative_deaths on 25-07-2020. Rows include United States of America, Brazil, India, Russian Federation, South Africa, Peru, Mexico, Chile, The United Kingdom, Iran (Islamic Republic of), and a Total row.

In the list USA is at the top with more than 71,000 new positive cases getting added daily. USA and Brazil together show cumulative deaths of above 2.25 lakh. Total cumulative cases and deaths of these top 10 nations alone are 1,05,30,413 and 4,08,080 respectively. The things do not stop here. There are expectations of surge in the number of new cases and deaths globally and humanity is heading towards a major

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historical challenge to face. The top two nations i.e USA and Brazil alone tests these days more than 1.31 lakh new positive cases in just 24 hours. Out of the top ten, 6 nations are Non-Asian countries.

The fact is unignorable that the disease originated in Asia (China) and the continent had the highest number of cases before the disease spread more rapidly in other continents. Naturally, neighboring countries were the first to get the disease transmitted. However, many Asian countries particularly some closest neighbors of China like Mongolia, Vietnam etc., have been able to contain the virus than the other regions, thus ensuring their narrow escape from COVID-19. This could be because of the immediate stern measures taken by these countries which helped in faster containment of the outbreak or because the countries in the west where virus reached later, seem to have been more complacent, despite getting a head start to prepare ⁵.

There is no doubt in it that China has been responsible for COVID-19. However, it has never been wise to put all the blame on China for its failure to act early in the pandemic when the officials there did not know what they had been dealing with. In comparison, officials in other continents like Europe and America knew exactly what they were facing once the outbreak reached their borders. Nonetheless, they were often slow to react, wasting time as the virus spread through Asia and ignoring lessons learned by other countries. The characteristic features of virus being highly contagious and having relatively a high mortality rate, had come to human cognizance by early February, 2020. The effective measure like enforcing social distancing to control it was established before the arrival of virus in west. Despite this, Western governments, particularly the US and UK, were staggeringly slow to act. Nationwide social distancing guidelines instituting lockdowns, stay-at-home orders etc. were issued months after the recording of earliest cases there ⁶.

World has witnessed a historical fatality rate due to COVID-19 pandemic. Numbers of factors have been reported to be the determinants of fatality rates across countries like poor health infrastructure, access to public health, BCG vaccination policy and demographic factors ⁷. The Centre for Disease Prevention and Control in Europe has pointed out that the impact of COVID-19 on any country depended on its level of preparation and its ability to implement rapid countermeasures⁸.

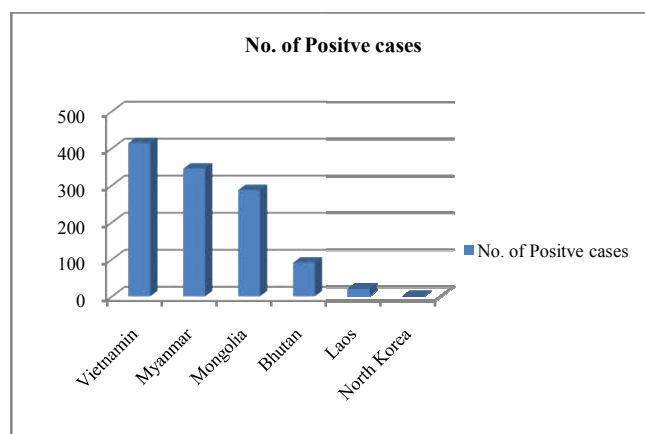
At the time when almost whole world is worstly suffering because of COVID-19 and everywhere efforts are being endeavoured to mitigate its impact and stamp out this menace as soon as possible, certain nations surprisingly claim to have been succeeded in battling against this pandemic. There are nations that have been least affected and are having total cumulative cases below thousand or even below hundred (Table 6a and 6b). Some are totally corona free nations as well (Table 7). The success of the neighbors of China where this global pandemic has been contained and the least or no effected nations entails a lesson to be learnt by others at present or in the future. As in Mongolia, ⁹ the past experience in dealing with certain high-risk infections (plague, cholera) helped in COVID-19 confinement. Whenever outbreaks of these infections occur there, the health system and government

workers team up to track, isolate and treat the infected people, leading to quick successful outcomes

RESULT

We have tabulated the least affected nations (affected in terms of number of Positive cases) in table 6a and 6b with total positive cases below 1000 and below 100 categories respectively. The comparison of the total number of positive cases among the neighboring countries of China shows that Vietnam, Mongolia, Myanmar, Bhutan, Laos and North Korea (Table 2 and Bar 1) have total number of cumulative cases below 500. It can be called a success particularly at the time when the developed nations like USA and Brazil are reporting around 70,000 and 60,000 new positive cases in just 24 hours. It appears that these neighbors, having total cases below 1000, have contained the virus. However India and Russia are in most affected nations list. India tops with cumulative positive cases on 25-07-2020 as 13,36,861 followed by Russia with 8,06,720. Kazakhstan, Afghanistan, Nepal and Tajikistan are having total cases below 1,00,000.

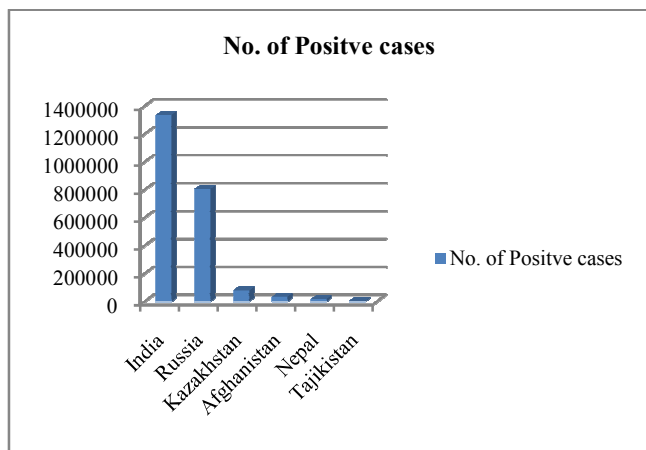
On comparison of number of deaths in the neighbors of China the data shows that there are 9 nations (Table 4 and Bar 3) having total deaths below 1000, which has been a very positive sign of containment of virus as up to July, 25th 2020. However, only three nations namely India, Russia and Afghanistan (Table 5 and Bar 4) have recorded deaths more than 1000. India is at the top with 31,358 deaths upto 25 July 2020.



Bar 1 Showing the number of positive cases in neighbors below 1000

Table 2 Showing the number of positive cases in neighbors below 1000

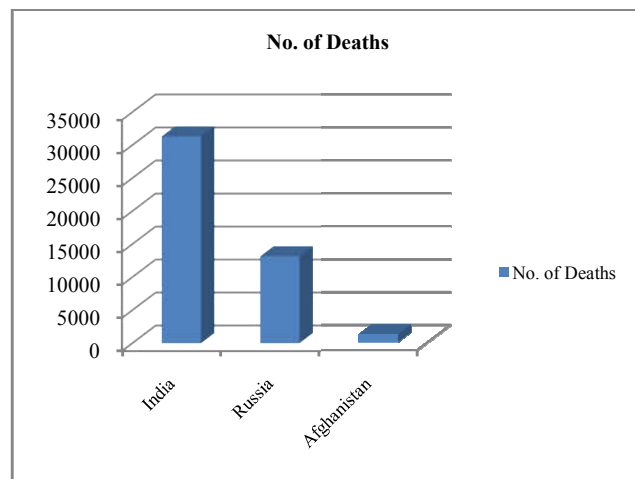
S.No.	Neighbouring Country	Positive cases on 25-07-2020
1	Vietnam	415
2	Myanmar	346
3	Mongolia	288
4	Bhutan	92
5	Laos	20
6	North Korea	0



Bar 2 Showing the number of positive cases in neighbors above 1000.

Table 3 Showing the number of positive cases in neighbors above 1000

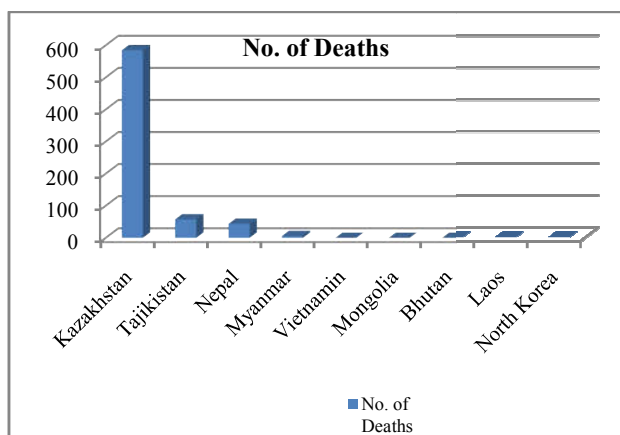
S.No.	Neighbouring Country	Positive cases on 25-07-2020
1	India	1336861
2	Russia	806720
3	Kazakhstan	80226
4	Afghanistan	36036
5	Nepal	18374
6	Tajikistan	7104



Bar 4 Showing the number of positive cases in neighbors above 1000

Table 5 Showing number of positive cases in neighbors above 1000

S.No.	Neighboring Country	No. of Deaths On 25-07-2020
1	India	31358
2	Russia	13192
3	Afghanistan	1246



Bar 3 Showing the number of deaths in neighbors below 1000.

Table 4 Showing the number of deaths in neighbors below 1000

S.No.	Neighboring Country	No. of Deaths On 25-07-2020
1	Kazakhstan	585
2	Tajikistan	58
3	Nepal	44
4	Myanmar	6
5	Vietnam	0
6	Mongolia	0
7	Bhutan	0
8	Laos	0
9	North Korea	0

Least Affected Nations: The nations that show an addition of on an average 10 or below number of positive cases per day with total cumulative COVID-19 positive cases of 1000 or below are considered here to be least affected.

According to WHO, there are 41 nations (Table 6a) having cases below 1000 and above 100. Such nations are treated to be in the category of least affected nations because total cumulative cases of COVID-19 in such nations on 25th of July 2020 are equal to 16,973, which being about equal to the one third of the new daily cases recorded in India at present and India is at the 3rd position in the list of top 10 nations. Total cumulative deaths in all these nations are 535 only. Vietnam, Myanmar and Mongolia fall in this category.

There are 30 nations across the globe with cases below 100. Total cumulative positive cases in such nations are 1101 only with total cumulative deaths just 32, which being comparatively a very low number. Bhutan and Laos fall here.

Table (6a) showing the list of countries with 100-1000 cumulative positive cases

S.No.	Country	New_cases on 25-07-2020	Cumulative_cases on 25-07-2020	New_deaths on 25-07-2020	Cumulative_deaths on 25-07-2020
1	Chad	0	915	0	75
2	Andorra	8	897	0	52
3	Angola	29	880	2	35
4	Sao Tome and Principe	111	860	0	14
5	Togo	11	839	1	17
6	Jamaica	5	821	0	10
7	Other	0	741	0	13
8	San Marino	0	716	0	42
9	Botswana	64	686	0	1
10	Malta	6	686	0	9
11	RÅ©union	8	654	0	3
12	Syrian Arab Republic	24	608	0	35
13	United Republic of Tanzania	0	509	0	21

14	Lesotho	60	419	3	9
15	Viet Nam	3	415	0	0
16	Guyana	1	351	0	19
17	Myanmar	3	346	0	6
18	Burundi	0	345	0	1
19	Mauritius	1	344	0	10
20	United States Virgin Islands	6	342	0	7
21	Comoros	0	340	0	7
22	Isle of Man	0	336	0	24
23	Jersey	0	331	0	31
24	Guam	0	329	0	5
25	Mongolia	1	288	0	0
26	Bahamas	55	274	0	11
27	Martinique	7	269	0	15
28	Eritrea	0	261	0	0
29	Guernsey	0	252	0	13
30	Cayman Islands	0	203	0	1
31	Guadeloupe	8	203	0	14
32	Cambodia	0	202	0	0
33	Faroe Islands	0	191	0	0
34	Gibraltar	2	184	0	0
35	Gambia	0	170	0	5
36	Bermuda	0	153	0	9
37	Trinidad and Tobago	1	142	0	8
38	Brunei Darussalam	0	141	0	3
39	Aruba	0	117	0	3
40	Seychelles	0	107	0	0
41	Barbados	0	106	0	7
	Total	414	16973	6	535

Table (6b) showing the list of countries with below 100 cumulative positive cases

S.No	Country	New_cases	Cumulative_cases	New_deaths	Cumulative_deaths
		on 25-07-2020	on 25-07-2020	on 25-07-2020	on 25-07-2020
1	Monaco	0	99	0	1
2	Sint Maarten	10	94	0	15
3	Bhutan	0	92	0	0
4	Turks and Caicos Islands	4	90	0	2
5	Liechtenstein	0	87	0	1
6	Antigua and Barbuda	0	76	0	3
7	French Polynesia	0	62	0	0
8	Saint Vincent and the Grenadines	0	52	0	0
9	Belize	4	47	0	2
10	Saint Martin	0	46	0	3
11	Northern Mariana Islands (Commonwealth of the)	0	38	0	2
12	Papua New Guinea	1	32	0	0
13	Curaçao	1	29	0	1
14	Fiji	0	27	0	0
15	Saint Lucia	0	24	0	0
16	Timor-Leste	0	24	0	0
17	Grenada	0	23	0	0
18	New Caledonia	0	22	0	0
19	Lao People's Democratic Republic	1	20	0	0
20	Dominica	0	18	0	0
21	Saint Kitts and Nevis	0	17	0	0
22	Falkland Islands (Malvinas)	0	13	0	0
23	Greenland	0	13	0	0
24	Holy See	0	12	0	0
25	Montserrat	0	12	0	1
26	Bonaire, Sint Eustatius and Saba	0	11	0	0
27	British Virgin Islands	0	8	0	1
28	Saint Barthélemy	0	6	0	0
29	Saint Pierre and Miquelon	0	4	0	0
30	Anguilla	0	3	0	0
	Total	21	1101	0	32

Nations with Zero COVID-19 Cases: There are few countries that surprisingly show no COVID-19 cases on 25-07-2020.. Many of these countries are Pacific Island Countries in Oceania. (Table 7) ¹⁰.

Table 7 showing the list of Nations with Zero COVID-19 case

S.No.	Country	Cumulative_cases
1	North Korea	0
2	Turkmenistan	0
3	Solomon Islands	0
4	Vanuatu	0
5	Samoa	0
6	Kiribati	0
7	Federated States of Micronesia	0
8	Tonga	0
9	Marshall Islands	0
10	Palau	0
11	Tuvalu	0
12	Nauru	0

DISCUSSION

COVID-19 spread from Wuhan China. Within a very short time it reached to most of the globe. However, before it affected other continents, the countries that were the first to get infected were Asian countries in the neighborhood of China. China along with its neighbors should have been at the top of the most affected nations. But this is not the case. China is not among the top 10 most affected nations. Only two of China's closest neighbors figure there with India at the 3rd position followed by Russia. Vietnam, Myanmar, Mongolia, Bhutan, Laos and North Korea show cumulative cases below 1000. Kazakhstan, Tajikistan, Nepal, Myanmar and North Korea show very low number of COVID-19 deaths with Vietnam, Mongolia, Bhutan and Laos showing no deaths at all.

All countries where COVID-19 reached, took some measures to contain or mitigate the spread of COVID-19. These include: Declared a state of emergency, lockdowns across countries or in major cities or curfews. Lowered the chances of importing the virus by: (a) fully or partially closing borders; (b) adopting screening at the ports; and (c) introduced travel bans or restrictions. Contained community transmission through: (a) social distancing; (b) school closures; and (c) closure of public places. However, less than 50 per cent of the countries penalized violation of these isolation orders. Among those that did, they did so by imposing fines, public humiliation and imprisonment. For instance, Singapore penalized those who flout social distancing regulations with a fine of up to S\$10,000 or six months imprisonment. In comparison, only a quarter of the countries did mass testing and contact tracing, which has been identified as effective measures to contain COVID-19 ¹¹.

Using such measures some countries particularly the neighbors of China created success stories in this regard. Mongolia is one of them.

Geographically, Mongolia is one of the closest countries to Hubei Province, China, where the outbreak of novel coronavirus disease (COVID-19) originated. Mongolia, a landlocked country between China and Russia, has a population of over three million, of which approximately half is concentrated in the capital city Ulaanbaatar. Mongolia's success in containing the spread of the disease is attributed to its timely adoption of decisive preventative measures ¹².

The response to the virus comprised shutting its extensive border with China and Russia, banning international flights

and the strategies such as wearing masks in public and implementation of C \$75 fines for breaking the rule, cancellation of mass gatherings and large events, closure of transportation system in the capital city and compulsory isolations in hospitals for the arrivals for 14 days extended for a maximum of 21 days, seems to have worked. Aggressive contact tracing and testing have been conducted in hospitals to have immediate isolation for those with symptoms of COVID-19¹³. Lessons learnt are early and timely adoption of preventive measures.

Another success story has been that of Vietnam. Despite limited resources Vietnam has managed to contain the pandemic relatively well with its prompt and aggressive response through its monitoring strategies, and communicate effectively with citizens. When the health care systems of most powerful countries in the world had failed to curb the spread of COVID-19, the South Asian country of Vietnam performed an outstanding work against the pandemic cutting swath through the globe. The country is considered to have built a success story with its fight against novel coronavirus. A nation of around 95 million population, Vietnam confirmed its first COVID-19 case on Jan. 23rd, 2020. Aside from some common policy measures such as contact tracing, ramping up production of medical supplies, and installing checkpoints at airports, Vietnam found its success in proactiveness, proactive prevention." The country's "epidemic control program has been well-organized for it relied on four relatively cost-effective solutions, including quick strategic testing, aggressive contact tracing, effective public communication campaigns, and swift development of testing kits¹⁴. Lessons learnt are early awareness of the pandemic, appropriate, drastic and people-centric measures, as well as public support.

Bhutan has emerged as unlikely success case for how to handle the outbreak with decisive and collective leadership. Indeed, had it not been for the strong initiative taken by its king, government, and citizens, the country of around 750,000 with just over 300 doctors serving the whole country may have faced a terrible fate. Bhutan has limited its number of infections to just 92 till 25th of July, 2020 with no death. Bhutanese government actively worked on quarantine, sealed its borders with India and suspended the entry of all foreign arrivals. Bhutan limits the number of infections as a result of heavy contact tracing and extensive testing much higher than in other South Asian countries. Further, the country on March 22, decided to shut down completely¹⁵. Lessons learnt are complete shutdown, heavy contact tracing and extensive testing.

Besides the above, some factors like low population and least exposure of a country to tourism has also contributed. There are some nations (although not the closest neighbors of China) which show zero cases of COVID-19. Many of these are Pacific Island Countries in Oceania (Table 7)¹⁶. Small population of these countries (Table 8) definitely has given an edge in the control of COVID-19 infections. Also many of the least effected nations are small in terms of size and population.

Table 8 showing the population of Countries with Zero COVID-19 cases

S.No.	Country	Population	Cumulative cases
1	North Korea	2,57,78,816	0
2	Turkmenistan	60,31,200	0
3	Solomon Islands	6,86,884	0
4	Vanuatu	3,07,145	0
5	Samoa	1,98,413	0
6	Kiribati	1,19,451	0
7	Federated States of Micronesia	1,15,030	0
8	Tonga	1,05,695	0
9	Marshall Islands	59,190	0
10	Palau	18,094	0
11	Tuvalu	11,793	0
12	Nauru	10,823	0

Countries which are least visited in the world are having a comparatively lower risk of getting exposed to such pandemic. Tuvalu and Nauru are the countries that hold the record for being one of the least visited countries in the world and show zero cases of COVID-19.

CONCLUSION

COVID-19 spread from Wuhan China. The closest neighbors of China, sharing borders with it, were the first to get exposed to infection particularly at the time when much was not known about the disease. But unlike many other nations most of the closest neighbors have managed a narrow escape from the disease in terms of low number of cumulative positive cases or deaths by adopting rapid counter measures. Surprisingly, their names figure in the list of countries with total cumulative cases below 1000 or even below 100. When whole world is suffering because of COVID-19, these neighbors have created success stories and thus act as source of lesson for present as well as for future.

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How to cite this article:

Imteyaz Ahmed, Ajaz A. Wani and Altaf Ahmed (2020) 'Narrow Escape of Neighbours of China from Covid-19 and Lessons to Be Learnt From Them- A Review', *International Journal of Current Advanced Research*, 09(07), pp. 22827-22832. DOI: <http://dx.doi.org/10.24327/ijcar.2020.22832.4513>
