U Myint[1]
Yangon
18 September 2020

Comments on Myanmar's COVID-19 Economic Relief Plan (CERP)

"*Lockdowns do not a prison make, Nor iron bars a cage, as We blessed with Smart Phone, Facebook, and Video Conference, Angels alone, that soar above, Enjoy such Liberty.*"

I. Background

1. The Government of the Republic of the Union of Myanmar's *COVID-19 Economic Relief Plan* (CERP) is attached.[2] I have scanned and pasted sentences and phrases exactly as they appear in this *Plan* for ease of reference and have commented on them. They are presented below.

2. Page 1, Title: *Overcoming as One, COVID-19 Economic Relief Plan, 27 April 2020.*

My comments: The "*as One"* mentioned above implies CERP will bring all stakeholders, communities, commissions, political parties, key organizations etc., together in a cooperative and united effort to deal with the virus threat. Unfortunately, this has not been appropriately reflected in the contents of the CERP document. The following, as far as I can make out, appears to be missing: the revered sayadaws and religious leaders, the tatmadaw, ethnic minorities, respected members of the academic, intellectual and professional communities, the media, UMFCCI, Anti-Corruption Commission, National Human Rights Commission, Civil Society Organizations, etc. They are all parts of the country's people. Four months have elapsed since the Economic Relief Plan was adopted. During this period, the need for a united and cooperative effort at national, regional, and international levels to deal with the virus has become obvious.

3. The present regime has steadfastly proclaimed "People are the key" in highlighting important news and activities regarding COVID-19. The State Counsellor has also stated: "*the help and cooperation of the people … needs to be repeated 200 times so that this sinks into the hearts and minds.*"[3] Hence, there should be no difficulty that all those people in the above missing list, be specifically mentioned as equal partners in CERP, and sharing mutual respect, *cetana* and trust, in order to put-up a decent fight against the virus.

4. Page 1, Title: *Overcoming as One, COVID-19 Economic Relief Plan, 27 April 2020.*

My comments: Why only *Economic*? How about the impact of the virus on health, education, social, political, geographic, environment, religion, styles of life and labour, and so on? Accessing daily reports and news on worldwide internet websites and satellite TV broadcasts, provide convincing reasons why these subjects, not necessarily economic in nature, are equally relevant to address the adverse impacts of COVID-19. Hence, it may be desirable to remove

[1]Director, Tun Commercial Bank; Economic Adviser, Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI); and Chief Economic Adviser of former President U Thein Sein.

[2]Government of the Republic of the Union of Myanmar, Overcoming as One: COVID-19 Economic Relief Plan, (Naypyitaw, 27 April 2020).

[3]Global New Light of Myanmar, (Yangon, 29 May 2020), page 1.

the word *Economic* from the title. If acceptable, the revised title will then become "*Overcoming as One, COVID-19 Relief Plan* (CRP)." Although deleted from the title, economic impact will continue to receive the attention it deserves in the revised more inclusive CRP.

5. Please note, a report of a video conference between the State Counsellor, Union Minister U Thaung Tun, Deputy Minister U Set Aung, and U Zaw Win Min President of UMFCCI, is published in the *Global New Light of Myanmar Newspaper* on 17 June 2020.[4] This report contains the following statement: "the country would be able to look after the health care needs of the people only if Myanmar was developed." This is true. Sufficient human and financial resources, a properly functioning market mechanism and a capable state administrative system can look after the healthcare needs of people that suffer from common diseases, that are treatable with available medicines and healthcare infrastructure and institutions such as hospitals, clinics, doctors, and nurses. But COVID-19 is not a common disease. It is a coronavirus pandemic. It has brought the most developed country in the world to its knees and has not finished with that country as yet.[5] Another fact about COVID-19 is that it will be disastrous for poor countries without enough money and expertise to take care of their people even for common diseases. Moreover, even in rich countries, members of marginalized ethnic and racial minorities accounted for a large percentage of total virus infections and deaths.

6. It will also be useful, at this time, to give a more objective and analytical consideration of the *National-Level Central Committee on Prevention, Control and Treatment of the Coronavirus Disease* goals with respect to CERP. For instance, consider *prevention*. Preventive measures such as wearing face masks, washing hands, lockdowns and staying at home, working from home (WFH), avoiding large gatherings, observing social distancing, keeping proper records for effective contact tracing, and closing borders by invoking quarantines to ban both outward and inward movement of people, are well publicized. Myanmar, like other countries, has a long tradition of crises bringing people together to engage in cooperative relief efforts. These have been underway for some time. So are cooperative relief efforts with the country's bilateral and multilateral development partners.

7. One protective measure that has been emphasized is to put on a face mask when going outside in public places. This is a simple requirement that can be easily met by a one year old child, as well as, her ninety-one year old grandmother. I have a feeling our Bamar Hluttaw representatives will probably agree that a face mask can be comfortably and easily put on, just as wearing a *gaung baung*, and with a face mask covering the mouth, there is greater incentive to keep interventions purposeful and short.

8. However, no one in the world knows for sure how long the COVID-19 debacle will last, the seriousness of the disaster it will cause (although there is a generally accepted perception that it is likely to be massive), and when vaccines will be available to all the people

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[4]*State Counsellor discusses remedies to lessen COVID-19 impacts on economy*, Global New Light of Myanmar, (Yangon: 17 June 2020), Pages 1,3, and 4.

[5]Holly Yan, *CDC Director: Covid-19 has brought this nation to its knees*, CNN News, 23 June 2020. The CDC Director is Dr. Robert Redfield, Director of the US Centers for Disease Control and Prevention (CDC).

in the world that will bring the virus under control. Faced with this uncertainty, and aside from prevention measures, timely attention must also be given to the National-Level Central Committee's *control* and *treatment* objectives that are expected to deal with the virus.

9. Devising policies and plans for *treatment* of the carnage and destruction inflicted by the virus on people, their livelihoods and on their economy, in the recovery phase, as well as, in the new normal Post COVID-19 Era are extremely important. In addition, we should cooperate and support the World Health Organization (WHO) and the major world powers in their joint efforts to deliver a treatment to the virus that it deserves, by giving it a knock-out punch that will keep it out of action for half a dozen years. This will give us sufficient time to prepare for the next round with the virus. On the other hand, the virus although down and out for the count, is lying low and mutating and combining forces with its avian virus neighbours to come-up with a New Virus that is more powerful and with a more deadly intent than COVID-19, for the next round with humans.

10. As for control, it has two aspects. First, the appropriate authorities in the country must issue rules to ensure the preventive measures, mentioned in paragraph (6) above are observed by the general public, including themselves. Second, effective and reliable vaccines to control the virus must be developed, mass produced, and distributed to all of us on the planet.

11. The burden of controls imposed on the population for protection from the virus has been extremely high. However, issues concerning whether to maintain these controls until the confirmed infected cases and death curves are flattened or sloping downwards (that is stabilized or declined), or to relax them without bothering too much, to lessen the suffering of the people, are complex and highly controversial. To put it simply we can say: (i) maintain or increase controls to reduce GDP and reduce deaths; and (ii) relax controls to increase GDP and increase deaths. Generally, scientists, doctors, and healthcare experts, with jobs to prevent virus infection and death, will usually go for option (i). On the other hand, politicians to do well in elections will favour option (ii).

12. To impose what controls on the population as protection from the virus menace, how long these restrictions should last, and when to relax or to re-impose the restrictions, will need reliable facts and data on how, and to what extent and duration, the virus is posing a highly dangerous impact on a country. At present, resort to digital information technology has generated considerable amount of data and information on COVID-19. So we often get carried away by analyzing and examining the data and distracting our attention away from the mysterious ways the virus is operating. And it has been pointed out that paying undue attention to data and statistics regarding the virus can cause unjustified comfort or terror among the population. Several observations that have been made on this matter are taken up later. But for now, please see tables in Annexes (A) and (B) on pages 27 and 28.

13. These tables are published every day, beginning on 26 April 2020 and up to now, in the *New Light of Myanmar* and *Kyemon* newspapers. Table (1) in Annex (A) provides COVID-19 total confirmed cases and total deaths for ASEAN member countries on 1 May 2020. Countries in the table are ranked in descending order in terms of confirmed virus infected cases. The table

shows Singapore with over 17,000 cases and 15 deaths tops the list, followed by Indonesia with over 10,000 cases and 800 deaths. Myanmar occupies the seventh place with 191 cases and 6 deaths, which may give an impression as a country where the impact of the virus is not serious. Table (2) in Annex (A) gives data on 10 countries in the world with the highest COVID-19 infected cases. USA with over 1 million cases takes top spot, followed by 5 European countries with cases ranging from over 100,000 to over 200,000. Two countries from the middle-east, Russia and China occupied the remaining 4 places on the list.

14. Tables in Annex (B) show what happened to ASEAN countries and 10 countries with highest virus cases, two months later, on 1 July 2020. In ASEAN, Indonesia has over-taken Singapore to occupy the top place with over 57,000 cases and nearly 3,000 deaths. That left Singapore in the second spot with over 44,000 cases and 26 deaths. The remaining 8 countries maintained their previous spots, with Myanmar still in the seventh place, with cases rising from 191 to 303 but the number of deaths remained unchanged at 6. As for impact of the virus over the past two months on 10 countries with the highest infected cases, USA retains the top spot with an explosive growth of infected cases that rose to 2.7 million, together with a death toll of over 130,000. There have also been significant changes in the composition of countries in this group of 10. The worrisome question is, with three South American nations and India becoming highest virus infected countries in this new composition, can Asia be far behind?

15. Although the Annexes (A) and (B) COVID-19 data may give an impression that the impact of the virus on Myanmar has been relatively modest, facts gathered by those operating at ground zero in the country – such as academics, doctors and healthcare experts, scientists, business people, journalists, and civil society organization members – found the impact of COVID-19 on the country has been serious.[6] Moreover, on 8 June, Health and Sports Minister Dr. Myint Htwe has warned the public not to be complacent and to let down their guard against COVID-19, due to slowing spread of infections and low number of cases and deaths.[7] He also noted that all but one of the 50 new cases reported over the past three weeks were from migrant workers who returned home from abroad. The sole local infection came from a healthcare worker in Shan State that took care of a patient who returned from China.

II. Myanmar Migrant Workers and Lessons from Singapore

16. Singapore and Thailand are important employers of Myanmar migrant workers. These workers have been returning home in large numbers, in haste and in distress, over the past few months. They are coming back by specially arranged relief flights, and through land border check-points with Thailand. A reason for this mostly unorganized and chaotic exit from their work-places abroad is provided by the experience of Singapore's battle with the coronavirus from the initial stages up to now. The story of this battle is well publicized in reports and studies by Singaporean and foreign authors. It contains useful lessons and is presented below.

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[6]Dr Zaw Oo, "*Impact of COVID-19 on the Economy of Myanmar*," The Myanmar Times, Myanmar Language Edition, pp. 14-17. Pease also see, "*State Counsellor discusses COVID-19 situation with representatives from labour and industry,"* Global New Light of Myanmar, 23 April 2020 edition, pages 1 & 3.

[7]Hmue Angel, "*Myanmar health minister warns against complacency,"* The Myanmar Times, 8 June 2020.

17. The story begins with an observation that Singapore's response to Covid-19 was among the world's most effective and praiseworthy, due to lessons learned from earlier epidemics, notably SARS in the early 2000s.[8] With this experience the country was prepared to meet the virus onslaught. Hence, soon after it recorded its first coronavirus infected case on 23 January 2020, which came after a man from Wuhan who visited the country, it reacted quickly and aggressively by implementing measures that successfully defended the country from the virus invasion.[9] The defensive measures implemented included: (i) Starting on 1 February, anyone who had been in China was banned from entering the country; (ii) two weeks later, the border was closed to all foreigners; (iii) then on 27 March, the Ministry of Health stipulated that those who don't social distance properly, or who meet in groups with more than ten, would be fined or jailed; (iv) using a smartphone app, a team was set-up to rigorously track people who might have been exposed to the virus; and finally, (v) if someone displayed even the mildest of coronavirus symptoms, that person was immediately sent to a hospital and quarantined there.

18. The fact that Singapore with a small area of 564 km^2 and population of only 5.8 million, was completely wired-up and well connected by means of the latest IT system, gave it an advantage for contact tracing. And in fact, the WHO pointed out that Singapore's aggressive contact tracing allowed the city-state to quickly identify and isolate any new cases. It quickly shut down clusters of cases and kept most of its economy and its schools open. The impressive success it achieved led to proclamation that the country was a Shining Star in Covid-19 control.[10]

19. Then something unexpected and unprepared happened to Singapore. It was struck by a massive second wave infections by the virus, that caught it off guard and exposed the danger of not providing proper care and treatment to its marginalized migrant workers. These workers came mostly from countries such as Bangladesh and India. More than 300,000 of them work in Singapore as builders, cleaners, gardeners and labourers, living in 43 huge, purpose-built dorms dotted around the island's more isolated periphery, far from the downtown skyscrapers that they have helped build. The speed at which the virus spread among them was startling. At the start of April there were just 19 such migrant worker cases. By the weekend of 2-3 May, 15,833 had been infected.

20. Singapore has relied on overseas workers to build infrastructure and help power its growth into one of the world's wealthiest nations. The rise in infection rates among them has brought a degree of soul-searching from Singapore's elite, alongside criticism from those who worry that the country's economic rise has produced alarming levels of inequality in its wake. Tommy Koh, a former diplomat noted that dormitories were like a time bomb waiting to explode. The way Singapore treats its foreign workers is not First World but Third World. The

[8]James Crabtree, *How Singapore's second wave is exposing economic inequalities,* New Statesman, 6 May 2020.

[9]Sophia Ankel, *How Singapore went from being applauded for its coronavirus response to facing an alarming second wave with thousands of new cases*, Business Insider, 22 April 2020.

[10]Jason Beaubien, *Singapore was A Shining Star In COVID-19 Control – until it wasn't,* The New Normal Newsletter, 3 May 2020.

government has also allowed their employers to transport them in flatbed trucks with no seats. And they stay in overcrowded dormitories and are packed likes sardines with 12 persons to a room.

21. But there are also Singaporeans who say: "Well, these migrant workers, they are dirty by culture, and you know, they have it good here in Singapore. Why are they demanding more? They deserve their lot." This sort of attitude prevails in several other Asian countries as well. For example, a 2019 ILO report on public attitudes toward migrant workers in Japan, Thailand, Malaysia and Singapore found significant proportions of survey respondents said migrants threaten their country's culture and heritage: 41% in Japan, 53% in Singapore, 58% in Thailand and 68% in Malaysia.[11]

22. It may also be useful to recall that Burma during its British colonial days had a large migrant workforce from India to help build Burma's economy. The attitudes and treatment of the Bamars in those days to the migrants are reported as follows:

> Having left in search of greener pastures from their native villages, the Indian working classes braved the seas, provided the much needed labour to clear the swamps in Lower Burma and malaria-infested jungles and in that process also became the most exploited and vulnerable section of the Indian population. As the nationalist movement in Burma began to gather momentum, it also took an anti-Indian dimension. The alienation of vast tracts of agricultural land to Indian Chettiars, the Burmese entry into the labour markets following the depression of the 1930s, which was hitherto an exclusive Indian domain; the opening of the University of Rangoon and consequent turning out of Burmese graduates searching for clerical jobs; all these proved as catalyst for the growth of anti-Indian sentiments. There were large scale riots against the Indians in the 1930s, due to social, economic, and cultural reasons. The Burmese nationalists wanted freedom not only from the British political domination, but they were also equally keen to throw out the yoke of Indian economic stranglehold.[12]

23. A comment has also been made that Singapore that globally markets itself as a smart city, it is paradoxical that the very low-wage paid migrant labourers that built the architecture of the city live in such poor conditions. A historical fact that a country's success often has within it, the seed of its own decline, may perhaps provide a possible explanation for this paradox. This is especially so for a success that received world-wide praise and acclamation. I wrote a paper that it was one of the reasons that caused the 1997-98 financial crisis of the East Asian tiger economies to which Singapore belongs. This paper is attached.[13] I have a feeling

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[11]Kentaro Iwamoto, *From Malaysia to Japan, crisis highlights need for support and social inclusion*, Nikkei Asian Review, 9 June 2020.

[12]Medha Chaturvedi, Indian Migrants in Myanmar: Emerging Trends and Challenges. Please visit: *https://www.mea.gov.in/images/pdf/Indian-Migrants-Myanmar.pdf.* Medha Chaturvedi is Senior Fellow, India Centre for Migration, Ministry of Overseas Indian Affairs.

[13]U Myint, *Lessons of the Asian Financial Crisis of 1997-98*, National Defence University: Course No. 8, (Yangon: 19 March 2007).

the Third World treatment of migrant workers by Singapore – mentioned by Mr. Koh that provided a vulnerable target for the virus to pounce on – is a seed of decline that came with the city-state's remarkable economic progress in the few preceding decades.

24 Faced with the virus induced disastrous situation, Singapore has taken remedial action.[14] The country's Ministry of Manpower and Ministry of National Development have plans to build additional housing facilities for about 60,000 workers by the end 2020. In addition, as a part of a long-term plan, the government will also build several new dormitories equipped with various facilities, including markets and healthcare services, that can accommodate up to 100,000 workers. This will take time, but the first 11 facilities are due to be built in the next two years.

25. But a view has been expressed that the situation in Singapore is not solely on matters like over-crowdedness, limited sanitation and toilet facilities, but rather the entire ecosystem. And also that it is time now for everyone in the city-state to do some serious soul searching about the treatment of foreign workers.[15] More can be done to improve the situation of these workers by such measures as: not letting the free market to regulate the rules regarding their treatment, with little or no Government involvement; implementing ethical labour practices before bringing them into the country; and paying attention to critics such as migrant labour's rights non-profit organization – the Transient Workers Count Too (TWC2) – that highlighted the unjust treatment of migrant workers in the country well before the city-state faced the disastrous second wave virus attack.

26. Three recommendations for Singapore are also presented in the above view on the migrant worker issue for the Post Covid-19 Era. They are: (i) to give consideration to the design and occupancy load at the large dormitories or any other places that house migrant workers in the country, and to come up with a better system; (ii) to determine and decide on a dignified wage or a fair living standard for any migrant worker who comes to work in the country, including foreign domestic helpers; and finally (iii) to pay close attention to the entire labour supply chain and to adopt ethical business practices that are found to be useful in many countries in the world.

27. As for Thailand, with a large migrant population living in unhealthy and disease prone places in the country, the health experts there warned that their country is highly vulnerable to a second wave of COVID-19, like in Singapore. Myanmar's largest migrant workforce is in Thailand where a huge percentage of that country's 3.9 million migrants (approximately 10 percent of the total workforce), has been laid-off due to the virus. Among them, 90 percent of Myanmar migrants are estimated to have lost their jobs, leaving over 750,00 people stranded in the country without any income and means of livelihood, and are desperately in need of food and shelter.

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[14]Pizaro Gozali Idrus and Maria Elisa Hospita, "*New dorms for migrant workers in Singapore are right step*," AA News Broadcasting System, (10 June 2020).

[15]Harpreet Singh, "*More must be done to improve treatment of migrant workers in Singapore post COVID-19 crisis*," The On-Line Citizen, (16 May 2020).

28. So the Government of Myanmar has made arrangements and has assisted these migrant workers to return to Myanmar starting 1 May 2020. Reports published in the daily *New Light of Myanmar* indicated a total of 70,267 have come back across legal border check-points up to 16 September 2020. Since the border is 1,501 miles (2,416 kms) long and porous, there are likely to be many returnees using the informal channel which do not appear in official statistics.

29. Upgrading living quarters, paying a decent wage, and implementing principles of worker rights will increase costs and reduce demand for migrant workers. For instance, the Singapore government has been pushing to reduce reliance on foreign workers even before the pandemic, especially in the construction sector, using automation and prefabrication techniques. Nevertheless, there are views that plenty of construction work will continue to require manual labour. As it is difficult to find locals to fill these jobs, it will be unrealistic at present to ignore migrant workers in the construction sector. The COVID-19 emergency also provides an opportunity for Thai authorities to reflect on the importance of migrants to their economy, and to take better care of their welfare and rights in accordance with ILO conventions. These are matters that will be useful to take into account of the impacts of the virus that will help promote fairer economic relations among the countries of the region.

30. As for Myanmar, we will do our best to bring our migrant workers back home. We will transform them from cheap unskilled labourers into skilled manpower resources that will be required for us to become a modern developed nation. No doubt, this will be a long and difficult journey. There is a well-known saying "*the journey of a thousand miles begins with a single step*." Our job at present is to make sure that this single step goes forward in the right direction, and not that goes backwards, sideways or around in circles.[16]

III. Lessons from the Spanish Flu Pandemic of 1918

31. Page 3, Foreword: *While we must come together in the fight against COVID-19 our past offers us no blueprint for the future.*

My comments: To determine whether "*our past*" can offer us a blueprint or lesson, we will have to look at the impact on us of a major pandemic in the past. The battle between humans and deadly bacteria and virus endemics has been going on for centuries. Among them, the obvious choice to find out what a past pandemic has done to us, is the Spanish Flu of 1918 which is considered to be the deadliest, and mother or all pandemics in history. It killed 50 million people worldwide including 15 million in India.[17] As for its impact on Myanmar, a report is available in an article titled "*Myanmar and the 1918-20 Spanish Influenza.*"[18] The following points are made in this report:

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[16]The Policy Research Centre for Economic and Social Development (CESD), in which I am a founder and patron, will help undertake this task.

[17]Manimanjara Sengupta, *How Spanish Flu Pandemic of 1918 affected India,* The Indian Express, *YouTube*, Down-Loaded 28 May 2020.

[18]*Myanmar and the1918-1920 Spanish Influenza.* Please visit: *https://lostfootsteps.org/en/history/myanmar-and-the-1918-20-spanish-influenza.*

(a) In the later years of 1910s, Burma was in a period of intense political change and debate. WW1 ended in 1918 and in late that year the British colonial government promised limited self-rule to India. Burma was a province of India at that time but was excluded from the coming constitutional reforms. This caused considerable disappointment to the people of Burma.

(b) Due to preoccupation to get a better political deal from the colonial government, sufficient attention was not devoted to the impact of the global pandemic of catastrophic proportions on the country.

(c) In early 1918, when the disease was already ravaging through Europe, no local preparations were made in Burma.

(d) So when the pandemic struck, the impact was devastating. Recent estimates by scholars indicated about 2-3% of Burma's 12 million population in 1918, or up to 360,000 people, died from the pandemic. Poor urban people, including Indian migrants, were badly hit. But so too were ordinary villagers. Agriculture in many parts of the country in 1918 was virtually paralyzed. In the frontier areas, where there were many returning soldiers, medical care was not provided, and no one knows how many died.

(e) One of those who died was U Tun Shein. He was a Young Men's Buddhist Association (YMBA) leader, and together with U Ba Pe, and U Pu, was a member of the delegation sent to London to discuss Burma's future constitution. These men spent six months in London at the height of the pandemic in 1919.

(f) U Tun Shein died shortly after he returned to Rangoon. His funeral became a big nationalist affair. A recording of the funeral by U Ohn Maung of the New Burma Film Company, became Burma's first movie. It was shown during 1920 to sell-out audiences at the Cinema de Paris (where Scott Market was located later). In this way, the pandemic is believed to have launched Burma's film industry.

32. Although we may not have much to learn from our past experience with a major pandemic, many useful lessons are available from the 1918 Spanish Flu. It took place during the First World War which began in July 1914 and ended in November 1918 which was also a major contributing factor why the virus was able to kill so many, so fast, and spread the disease so quickly all over the world. A good example of death and destruction it caused is illustrated by what it did to USA, that declared war on Germany on 6 April 1917, and became a major combatant in WW1.

33. Why USA entered WW1, with the country and army absolutely unprepared to fight such a war is presented in a report titled "*World War 1: Building the American military.*"[19] The unpreparedness is obvious by noting that on 6 April 1917, the US army consisted only of a constabulary force of 127,151 soldiers, and the National Guard with 181,620 members. The country did not have a large standing army like other combatants in WW1. For example, on

[19]Jim Gramine, *World War I: Building the American military,* Department of Defense News, Defense Media Activity April 3, 2017.

the Allied Powers side, armies of major combatants such as Russia had 12 mil. soldiers, British Empire had 8.9 mil., and France had 8.4 mil. On the Central Powers side, Germany had 11 mil., Austria-Hungary had 7.8 mil., and Turkey had 1.2 mil.

34. Hence, the first priority for US to prepare for war was to build-up the army. That required opening recruiting stations, setting up military camps and ensuring a steady and large supply of recruits, who in turn needs barracks, training areas, uniforms and equipment. Moreover, camps and barracks must be provided with roads, railroad spurs, sewage, electricity, plumbing, mess halls, administrative buildings, hospitals and so on. Another huge task that required high priority was manufacture of armaments, heavy artillery, armored cars, tanks, transport vehicles, ships, etc. All these requirements to build the army, in a short time, will need commitment of a huge amount of country's resources supported by a dedicated workforce. And all this had to be done with the country under serious threat from the Spanish Flu.

35. American President Woodrow Wilson met the problem by taking two measures in 1917, namely: (i) Creating the Committee on Public Information (CPI) a government agency to distribute information to influence public opinion to inspire support for America's entry in the war;[20] and (ii) Executive order to censor Spanish Flu news, because if a free press publishes what is known about this pandemic, no one will come to work or to enlist as a recruit.[21]

36. CPI was responsible for producing films, commissioning posters, publishing numerous books and pamphlets, purchasing advertisements in major newspapers, and recruiting businessmen, preachers, and professors to serve as public speakers to support America's entry into the war. It had an impact and the Americans public supported intervention in the war and participated widely in supporting the effort. However, CPI was criticized after the war when it became clear that it had manipulated information. Similarly, the Executive Order that censored information on the Spanish Flu to keep up morale, was noted to have mostly lied, covered truth, and misinformed people.

37. It is not clear how and where the Spanish Flu came from. A popular belief holds that it most likely originated in the United States. One of the first recorded cases occurred on 11 March 1918, at Fort Riley in Kansas. The fort's overcrowded and unsanitary conditions created a fertile breeding ground for the virus and within a week, infected cases there rose to over 500.[22] Medical officers recommended to quarantine the entire post but was not accepted by the army commander – as the country was at war – and troops were sent to forts in other states in USA causing the spread of the disease all over the country.

38. By May 1918, influenza began to subside in the United States and soldiers at various forts were ready for battle. They were sent across the ocean in cramped unhygienic ships in a

[20]Robert McNamara, "*Committee on Public Information, America's WWI Propaganda Agency*," *https://www.thoughtco.com/committee-on-public-information-4691743*, accessed 29 June 2020.

[21]"*How America's Newspapers Covered Up a Pandemic*," *https://newrepublic.com/article/157094/americas-newspapers-covered-pandemic*, accessed 29 June 2020.

[22]Sara Francis Fujimura, *Purple Death: The Great Flu of 1918*, Perspectives in Health Magazine, vol. 8, Number 3, 2003.

long voyage to Europe. During this journey, the virus had time to incubate, infect and kill many of those on board even before the ships landed. And when the ships landed, the troops were transported on packed trains and trucks to the battle front line to engage the enemy in trench warfare. Trenches were filthy, unsanitary, and highly disease prone. Cramming soldiers into trenches provided an ideal opportunity for the virus to infect and kill many of them. In fact, there are historical records that show that US soldiers serving overseas in WW1 accounting for 64,114 deaths from diseases and other causes, were more than 53,402 killed in action.[23] When soldiers returned home the disease spread to their countries. In addition, the virus invasion was helped by the military's procedure to send sick soldiers back home to their families.

39. Thus, the flu disease spread from the battlefields of Europe, and its ability to hitchhike rides unseen on naval ships and carriers, merchant vessels, and passenger trains, the virus became a world traveler, which quickly transformed the flu epidemic into a flu pandemic. What is of considerable speculation and interest at present is the lessons can be re-learned and recalled from the Spanish Flu pandemic to rectify the mistakes we are repeating with the on-going battle with the COVID-19 pandemic.

40. One obvious lesson that needs to be recalled is the effective preventive measures against the virus in vogue today called *nonpharmaceutical interventions* – wearing face masks, staying away from each other, avoiding large gatherings, lockdowns, quarantines, etc. – are results of well documented evidence of events that occurred in the Spanish Flu pandemic. The usefulness of such preventive measures is already known during the flu pandemic days. How countries and communities respond by applying them to deal with the virus made a big difference. Those that took immediate and aggressive action by observing personal protection equipment (PPE) rules, social distancing, and quarantines, got off without much damage and harm. Others that did not, paid an extremely high price.

41. The consequences of difference in response by cities and communities to the virus threat have been highlighted in flu pandemic reports. The most tragic and often cited case took place in Philadelphia.[24] Doctors urged cancellation of a scheduled huge parade in the city for public support of the Liberty Bond war loan. The public health director ignored the advice and the parade in which 200,000 people participated was held on 28 September 2018. It soon led to a major public health disaster. The flu infected thousands and hundred were dying every day. Within a few days, the city's 31 hospitals were overwhelmed with sick and dying and by the end of the week more than 4,500 were dead. This in turn overwhelmed the morgues and cemeteries when total deaths rose to 15,000.

42. There are many comparative views of the impact of the virus on those who did and did not take prompt protective measures. An interesting case is about two small islands in the

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[23] World War I United States Military Records, 1917 to 1918. Please visit: *https://www.google.com/search?client=firefox-b-d&q=number+of+us+soldiers+in+ww1*

[24] *How Philadelphia city officials helped the Spanish Flu to take hold*, Smithsonian Channel, *YouTube*, assessed 29 May 2020.

middle of the Pacific ocean – Western Samoa and American Samoa.[25] The flu disease was brought to Western Samoa by a visiting New Zealand ship. The first few infected cases were ignored by the island's authorities that resulted in one of the most serious public health disasters from the flu pandemic: 85,000 islanders perished within a short period, accounting for 25% of the population. On the other hand, American Samoa which lies 40 miles east of Western Samoa, the authorities there took strict quarantine and protective measures promptly that prevented the spread of the disease and no one died.

43. The experience of many major US cities that quickly adopted quarantine and social distancing measures were also able to slow down the pandemic. The St. Louis city provided a good example. In just two days after the first few cases were detected, the city closed schools, playgrounds, libraries, courtrooms, and churches; and banned public gathering of more than 20 people. These resulted in keeping the flu infected death curve flat at around a few fatalities and then sloping downwards. In sharp contrast, for cities that did not take timely preventive measures (such as Philadelphia), their death curves skyrocketed into hundreds, flattened for a while and shot-up again, as the virus attack comes in waves, and the second and latter waves were more deadly than the first.

44. By 30 August 2020, six months have elapsed in the battle against the coronavirus. Most countries adopted quarantines and other protective measures during this time. As stated earlier, the toll of such measures imposed on the public has been extremely high. The crucial issues now are how and when to relax the restrictions and what lessons to recall from the flu pandemic experience.

45. One such lesson is provided by San Francisco that enforced a strict citywide lockdown and mask-wearing measures in September 1918, when the flu was ravaging across the USA. Then when the new flu cases dropped in November, the city lifted its lockdown, reopened businesses and permitted the public to go outside their homes without wearing masks. But this change of tact was too early and the city had to pay a high price for it.[26] The high price came in early December when new virus cases surged again, and the city authorities had to issue an order to reimpose the restrictions in mid-January 1919. Many defied the order, and some were fined or arrested. Civilians, joined by some doctors, set-up the "Anti-Mask League" that organized an event at the city's roller skating rink that attracted 4,500 protesters. With the human camp in disarray the virus was able to inflict fatalities in January/February 1919 that were twice the deaths it meted out to the city's population than in November 1918. The experience also illustrated that the public will not tolerate re-imposing a lockdown after lifting it.

46. A study by a team of medical historians calculated how many more people died during the height of the pandemic, from September 1918 to February 1919 than in a typical flu year,

[25] "*Spanish Flu of 1918_The history of a deadly pandemic and lessons for Coronavirus*," *YouTube*, assessed 29 May 2020.

[26] *San Francisco paid the price of lifting Spanish Flu lockdown early*, YouTube, assessed on 28 May 2020.

in 43 selected US cities, and came up with a statistic called "excess deaths."[27] The team by also looking at how these cities' nonpharmaceutical interventions affected the impact of the virus, found more than 115,000 "excess deaths" occurred. The highest rate was 807 extra deaths per 100,000 people, in Pittsburgh; and the lowest was 267 per 100,000, in Minneapolis. In addition, the study confirmed the cities that fared best, imposed restrictions the earliest and kept them in place the longest, and that it was difficult to re-impose restrictions after they were lifted.

47. The flu pandemic took a heavy toll on both the Allied Forces and Central Powers. The combatants stifled reports to hide information that could be valuable to the enemy. War time press censorship stifled news further. Spain was neutral and did not enforce press censorship. Its free press gained reputation as the main source of information on the pandemic and hence ended up by being labelled the flu in its name, although the country did nothing much to earn this label.

48. In sharp contrast, we are now in the Information Technology (IT) age and have easy access to a lot of statistical data and information on the COVID-19 virus. A useful information for scientists is how and from where the virus came from. There are past experiences where knowledge of the origin of the virus, coupled with quick and firm support from the authorities, have helped scientists to formulate effective vaccines against a deadly virus and prevented it from becoming a pandemic.

49. As follow-up to the question of where the coronavirus came from, the US has added a blame-game query: who caused the pandemic, who is responsible? At a press briefing, a journalist asked President Trump why he is naming COVID-19 as China virus and Wuhan virus. His reply: because it came from China. It is true several Chinese public health experts who took care of the earliest coronavirus infected patients in the country were aware that the virus was deadly and capable of person to person transmission. They submitted warnings concerning the danger to both the local and the country's central authority, the Chinese Communist Party (CCP). The warnings were not only ignored, but CCP hid the truth and assured the world community that the virus posed no danger and is under control, until several weeks later.[28] Li Wenliang, a doctor at Wuhan Central Hospital, infected by the virus, sent a message to fellow doctors on 30 December 2019 warning them to wear protective clothing to avoid infection. A month later, he also posted his story on Weibo (the Chinese social media site) from the hospital bed. The local authorities harassed and accused him of spreading rumours and making false comments that had severely disturbed the social order.[29] Dr. Li died on 7 February 2020. A wave of anger and grief of the Chinese people was reported to have flooded Weibo when news of his death appeared in the newspapers.

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[27]Steve Liewer, *In 1918 flu pandemic, Omaha had second surge of cases after lifting restrictions*, Omaha World Herald, 2 May 2020.

[28]Samone Gao, *The coverup of the century: New documentary on how the CCP covered up the coronavirus outbreak*, NTD News, YouTube, accessed 17 April 2020.

[29]Stephen McDonell, *Li Wenliang: Coronavirus kills Chinese whistleblower doctor*, BBC News, Beijing, 7 February 2020.

50. Up to mid-September 2020, the coronavirus is winning the war with USA, the world's largest economy in its election year. The lessons from Spanish Flu clearly illustrated that regardless of where the virus came from, its impact on a country depended on how the country responded to the onslaught by employing prompt nonpharmaceutical interventions, and providing support and paying heed to the advice of the country's front line warriors – doctors, nurses and public health experts and scientists – in the battle against the virus. The President of the United States has ignored these measures to fight the virus. The consequences have been disastrous both within the country and in its relations with major players on the world stage, especially China. The turmoil in US is continuing, with infected cases and deaths soaring in many states and social order in tatters. It is likely the USA's experience in dealing with COVID-19 will be the most important lesson in the entire history of the battle between humans and the virus that extended over centuries. That lesson will be provided to us by the Americans themselves, especially by highlighting what transpired in their country from now (17 September) up to November 2020. We should try to understand this USA experience and draw lessons from it, that will help us to devise evidence based and consistent measures in our on-going battle against the coronavirus.

IV. Lessons from the Ebola Epidemic of 2014 - 2016

51. Ebola epidemic of 2014 - 2016 is another battle with the virus from which useful lessons can be drawn. Please note Ebola is an epidemic and different from a pandemic. Epidemic is defined as a disease that affects a large number of people within a community, population, or region; whereas a pandemic is an epidemic that spreads over multiple countries or continents.[30] A simple way to remember the difference between the two is to keep in mind that pandemic starts with letter "p", which in turn can be taken to mean a pandemic has a passport. Hence, a pandemic is an epidemic that travels all over the earth with a passport. There are two other terms that will need to be mentioned to explain why the virus is called Ebola. These are: (a) endemic which is defined as something that belongs to a particular people or country; and (b) outbreak which is defined as greater-than-anticipated increase in the number of endemic cases. It can also be a single case in a new area.

52. There has been a long series of small outbreaks of Ebola Virus Disease (EVD)[31] since 1976, most of them taking place in the Democratic Republic of the Congo. In fact, the name "Ebola" given to the virus came from a river that flows through the Congo when the disease first appeared there in 1976. In those early days, the EVD is said to appear suddenly "from the jungle" and disappeared each time as rapidly as it arrived. The morbidity (sickness) and mortality (death) numbers of all known of EVD outbreaks before 2013 came to a total of 2,427 sick and 1,597 death, which were not serious or big enough to qualify the disease to be called an epidemic. Then beginning in December 2013, the EVD launched a fierce attack on three

[30] *"What is the difference between a pandemic, an epidemic, endemic, and an outbreak?"* Intermountain Healthcare, 2 April 2020.

[31] The name Ebola Virus Disease (EVD) is given by WHO in consultation with US Centers for Disease Control and Prevention (CDC).

West African countries – Guinea, Liberia, and Sierra Leone. All of them were badly hit. WHO declared them as *Public Health Emergency of International Concern* (PHEIC), starting from 28 August 2014 and ending on 29 March 2016. Over this period, there was a total of 28,616 infected cases and 11,310 deaths from EVD in these West African countries. The disease also spread to seven other countries, listed in footnote 32. But the impact on them was not significant as their total effect came to a negligible 36 infected cases with 15 deaths. Hence, Ebola is aptly designated as the West African epidemic. If we add the infected and death toll of these other seven countries, the total West Africa epidemic's infected cases came to 28,652 with 11,325 deaths. This gives a Case Fatality Ratio (CFR) of 40%, which is an extremely high death ratio.[32].

53. As for Myanmar, 22-year old Zaw Min Oo returned from Guinea and Liberia with a fever, and fainting spells, on 19 August 2014. He was hospitalized, placed in isolation, and his blood sample was sent to WHO recognized laboratory in India for testing, as Myanmar lacked such a facility at that time. The test result was negative.[33] So Myanmar did not have hands-on experience with the Ebola virus. Nevertheless, there are several important lessons we can learn from the West African epidemic. These lessons have been highlighted by Yale University's medical historian Emeritus Professor Frank M. Snowden in his book titled "Epidemics and Society: From Black Death to the Present."[34] I have prepared a brief summary of his views in the paragraphs below, to help my understanding of the key issues relating to the Ebola virus, and also perhaps to share them with others who may be interested.

54. In December 2013, a small child named Emile who lived in a village in Guinea died of Ebola. He died after playing under a tree close to his house. The tree was full of bats. The bats are natural hosts of the Ebola virus and their droppings spread out under the tree, led to Emile's virus infection that killed him. Normally, thousands of bats lived in the deep forests. They came to roost on trees in and around the village due to deforestation and land clearance. A 2009 report noted that forest cover of over 75 percent has been cleared in the three West African countries to promote trade and investment in mining, logging and agrobusiness. However, there is another popular belief how the Ebola virus is transmitted from bats to humans. It says transmission is due to forest dwellers hunting, butchering and eating contaminated meat of infected bats and other animals. No proper study on this belief has been conducted and its contribution to the virus epidemic has been disputed.

55. The reason for hectic pace of deforestation and land clearance in the West African countries was to meet international demand for oil palm. Oil palm is native to this region and has properties that can be used as input to produce many industrial and consumer products. As

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[32] "*2014-2016 Ebola Outbreak in West Africa*," The Ebola Virus Disease. Please visit: https://www.cdc.gov/vhf/ebola/history/2014-2016-outbreak/index.html. The seven countries are Italy, Mali, Nigeria, Senegal, Spain, UK and USA.

[33] Shwe Yee Saw Myint, "*Myanmar man tested for Ebola shows signs of improvement*," The Myanmar Times, 22 August 2014.

[34] Frank M. Snowden, "*Chapter on The Challenge of Ebola*," Epidemics and Society: From Black Death to the Present, (Kindle eBook, pp. 473–505). This eBook was purchased on-line, on 23 May 2020.

the land was held by subsistence crop-producing peasants by custom and not by law, the state engaged in dispossessing, or grabbing land from them, a practice which is not unknown to us. The land was then provided cheaply to plantation owners. Profits were made and state officials received payments for brokering deals and other services that facilitated land acquisition. Moreover, oil palm is a lucrative cash crop. It earned much needed foreign exchange from exports for local governments. It was considered to have good potential to promote private sector export-led growth with an enabling environment and support provided by the local government, in cooperation with multilateral and bilateral development partners, as well as, with big agrobusiness firms from within and outside the country playing an active part in implementing the projects.

56. Clearing land with bulldozers and fire and replacing forests with large palm oil monoculture plantations had serious negative economic, social and environmental impacts that resulted in vociferous oppositions from "green" NGOs such as World Rainforest Movement and Greenpeace. The negative features they pointed out included: loss of biodiversity, contribution to greenhouse effect and global warming, population displacement, low wages and harsh working conditions of plantation workers, unfavourable long term development prospects by relying on producing raw materials for the global market, and inability of perennial crops like palm oil to respond to market fluctuations.

57. Faced with the above negative factors it will be useful to take a brief look at the recent economic situation of these three West African nations. They, together with Myanmar, are in year 2020 list of 47 Least Developed Countries (LDC) issued by the United Nations Conference on Trade and Development (UNCTAD).[35]

58. Their recent economic situation is available from IMF's list of 186 countries, ranked in terms of per capita GDP in current US dollars in 2019. The data for four countries noted above in this list are as follows: (a) Myanmar: Ranked 156, Per Capita GDP $1,244, Population 54.4 mil.; (b) Guinea: Ranked 160, Per Capita GDP $981, Population 13.2 mil.; (c) Liberia: Ranked 174, Per Capita GDP $703, Population 5.1 mil.; and (d) Sierra Leone: Ranked 176, Per Capita GDP $546, Population 8.0 mil.[36] These figures show their palm oil export drive, in the three West African nations, did not have a positive outcome as anticipated. Instead, they remain firmly stuck in the LDC list. They are among countries with the lowest per capita GDPs in the world, and their chances of graduating from LDC status are uncertain at present. Moreover, low priority accorded to the health sector by the governments made the situation worse. For example, a summit of African health ministers in 2001, pledged all countries to achieve health expenditure amounting to 15 percent of GDP. But in 2014, the three countries lagged far behind that goal, with 1.9 percent recorded for Sierra Leone, 2.7 percent for Guinea, and 3.2 percent

[35]UNCTAD, UN least of Least Developed Countries List of year 2020. Please visit: https://unctad.org/en/Pages/ALDC/Least%20Developed%20Countries/UN-list-of-Least-Developed-Countries.aspx

[36]IMF, Rank of countries by per capita GDP in 2019. Please visit: https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(nominal)_per_capita

for Liberia. Hence, it is not surprising that deforestation for the palm oil export drive, instead of bringing economic well-being to the people, by destroying the natural habitat of bats, brought the bats along with the Ebola virus, to the people.

59. Person to person transmission of Ebola disease is said to be through direct contact between a healthy person and an infected person's bodily fluids. This spread of the disease takes place at homes, funerals, and hospitals. The at-home spread is illustrated by the transmission of the disease from Emile to his family members, visiting friends and those who took care of him. Emile's death was soon followed by deaths of his mother, sister, grandmother, a village nurse and a midwife. As Ebola victims shed more virus particles after death, customary funeral rituals cause more infections and deaths. The rituals include keeping the body at home for several days to provide sufficient time for relatives and friends, both near and far, to come and pay respects to the departed. The departed is bathed, wrapped in a sheet, his head is kissed by mourners to show remorse and paying respects, and finally the community gathers to accompany the departed to the grave.

60. In addition to home and funeral, another major site of EVD was the hospital. Due to poverty noted above, most hospitals were in bad shape – no isolation wards, electricity, running water, diagnostic facilities, and protective equipment for staff. Under such circumstances, the health-care workers – orderlies, nurses, and doctors – became easy prey for the virus and a heavy toll was inflicted on them in terms of death and disease. When the epidemic struck, they were totally unprepared, frightened, poorly paid, overworked and in deep despair and distress at their inability to help sufferers in their care. The funeral rituals noted above are to ensure the soul of the departed to rest in peace in the afterlife. These rituals cannot be performed as morgues and graveyards are overwhelmed when hundreds of people are dying per day from the epidemic, and corpses are piling-up all over the place. Failure to perform the rituals is believed to prevent the dead person's soul to rest in peace and it engages in haunting the living. The native people are more afraid of this danger than the virus disease. So they end-up with a huge psychological stress which the health-care workers are not trained to deal with. This in turn resulted in distrust of doctors and nurses by the general population, who also regarded hospitals as places to die.

61. Aside from issues concerned with the person to person transmission of the disease noted above, important lessons can be drawn from the responses to the epidemic. The responses are from international, national, bilateral and multilateral development partners, and big companies operating in the country. The response process was initiated by the whistle-blower – Médecins Sans Frontières (MSF, or Doctors Without Borders). MSF's mission, as mentioned in its website, is "*to act as a first responder in humanitarian crises while galvanizing local governments, WHO, and First World states to assume major responsibility*." It did its best to fulfill this mission. But by March 2014, there were growing concerns that the Ebola epidemic, which was spiraling out of control, will become an Ebola pandemic. So on 31 March 2014, MSF declared that the crisis in West Africa was an unprecedented emergency demanding an immediate and coordinated international effort.

62. WHO's response to MSF's appeal for coordinated international effort to deal with Ebola was reported to be lukewarm and unsatisfactory, and for which there are many reasons. However, I believe like any international organization it has constraints. For instance, it needs to exercise some discretion in making announcements that may un-necessarily frighten people, or that are not consistent with the views of local governments and major players on the world stage who occupy high positions in the decision-making authorities of their organizations. The WHO Spokespersons therefore, took the initial safe line by proclaiming:

> "The fortunate thing with Ebola is that it's quite difficult to transmit. You have to touch someone. Fortunately for the greater population, the risks are quite small…Moreover, this is not a unique situation, we have faced it many times, and we are quite confident that we can handle this."[37]

63. At the local level, the three West African countries gave more attention to economics than to science or to the health of their people. Their big worry concerns the adverse impact of the disease on investment and development plans; international airlines cancelling flights, that cripple tourism; drying-up of lucrative kickbacks from mining and agrobusiness companies; and widespread media coverage of the origin and spread of epidemic from their region will create a bad image of them as poor backward countries still steeped in obsolete tribal practices. Deception and concealment were therefore their strategies of choice.

64. The application of this strategy is demonstrated by President Alpha Condé of Guinea, by reporting only a fraction of the known and suspected infected cases. He lifted quarantine imposed on his subjects to illustrate the virus is harmless and is under control, and at the same time, he shifted the quarantine onto journalists, with his police under strict orders, to prevent them from reporting something else that is different from the official view. Banning the sale and consumption of bush meat was also highlighted as the priority option that has been adopted as protection from the virus disease. And in a visit to Geneva at the end of April 2014, when the epidemic was in full swing, President Condé is reported to have declared "the situation is well in hand. And we touch wood that there won't be any more cases."

65. As for the international effort from the First World, high hopes were placed by all on USA for leadership and help to fight the Ebola virus. By that time, United States was the sole remaining superpower with abundant resources and its Atlanta-based Centers for Disease Control and Prevention (CDC) set the international standard for all organizations that intended to carry out medical surveillance and emergency epidemic response. Unfortunately, US was not keen on taking-on such a role and is said to be pursuing a sort of public health isolationism policy. What most Americans mainly wanted to know was whether the West Africa epidemic posed a direct threat of crossing the Atlantic and causing disease and death to people such as in New York, Houston, and San Francisco. Until July 2014 the consensus answer to this question was "it won't happen." This optimistic outlook is illustrated by David Quammen who published an article in the *New York Times* with a title "Ebola is not the Next Pandemic." He

[37]Frank M. Snowden, Epidemics and Society: From Black Death to the Present, *Op. Cit.*, p. 488.

acknowledged that Ebola was a terrible and excruciating disease for its victims, but he was confident it had no relevance for the United States. He continued by stating Ebola, in fact, was "a rare disease caused by the grim and local misery endured by a small number of Africans who are obliged by scarcity of options to eat bats, apes and other wild creatures, found dead or captured alive."[38]

66. The above optimistic attitude received a drastic shock in July 2014 when two US medical volunteers infected by Ebola came home. They received advanced supportive therapy treatment at a technologically equipped center and recovered. But their plight brought about a sea change in the attitudes of the American public toward the Ebola virus. It has been reported that all of a sudden, people were exclaiming: "Oh my God, it's knocking at my doorstep." Opinion polls conducted in mid-August 2014 also indicated 39 percent of respondents believed a large outbreak of the disease would occur in USA. This was followed by virus infection of eight more healthcare volunteers working in West Africa, and a person not involved with healthcare who travelled from West Africa to Dallas, died from virus infection, while spreading the disease to two nurses that took care of him. Over the September and October period, there were also 30 infected cases in the European countries.

67. Hence, Ebola virus was crossing an ocean and a continent and beginning to spread its disease to First World countries. People there were alarmed, and they helped launch a coordinated international response that prevented the Ebola epidemic from becoming an Ebola pandemic. As noted in paragraph (52) on page 15 above, WHO declared the Ebola disease as a *Public Health Emergency of International Concern* (PHEIC), starting from 28 August 2014. So it took five months for WHO to make this declaration from MSF's 31 March 2014 announcement that the crisis in West Africa was an unprecedented emergency demanding an immediate and coordinated international effort. But despite the delay, the coordinated international response, with several hiccups, was able to end the Ebola epidemic when WHO lifted the PHEIC status of the West African nations on 16 March 2016. There are many useful lessons from the Ebola epidemic, especially for dealing with spike in virus infected cases in Myanmar presented in section (VI) on page 23 of this paper. However, before doing that, it is necessary to comment on a few other contentious points in the Myanmar Government's COVID-19 Economic Relief Plan. As usual these are provided in the paragraphs below.

68. Page 3, Foreword: However, such reallocations [of government expenditures] shall not come at the expense of hard-fought-for fundamental social and economic freedoms now enjoyed in Myanmar.

My comments: The hard-fought for fundamental social and economic freedoms is true. The hard fighting to make changes for greater freedom and justice was conducted by many individuals, monks, students, and ethnic minorities, over decades against tremendous odds. Sacrifices were made, and lessons were learnt in the process. We are pleased when NLD promised to bring about change by starting a new page. This is good because there should be

[38] *Ibid*.; page 489.

change with continuity. Starting a new page satisfies this requirement because all you have to do is to flip a few pages back to glance at something that may be worthwhile to continue. But producing a new book by relying on unknown authors with dubious qualifications and credentials do not fulfill this requirement. As for the phrase "fundamental social and economic freedoms now enjoyed in Myanmar," it is debatable.

69. Page 5, Overview & Structure: It [CERP] consists of policies and proposals that are as realistic and implementable as they are bold and hopeful. The CERP also carefully matches intentions to resources. Myanmar's strong debt position and stable macro-economy of recent years mean that we are well-placed to meet much of the increased spending we need.

My comments: This is an interesting statement. COVID-19 pandemic began in Myanmar some time ago in January 2020. We are now in mid-September 2020, so the conflict has been raging for over 7 months. During these months, the Government of Myanmar like most governments, has given high priority to safeguard the country and its people from the deadly danger posed by the coronavirus. The humanitarian assistance is provided by the government by drawing on its own resources, and in cooperation with domestic well-wishers and bilateral and multilateral development partners. There are websites with countries reporting their virus infection and death status in standardized statistical health indicators in which Myanmar is participating. I believe a review of such indicators and data will enable us to consider whether the CERP's policies and proposals are realistic, implementable, bold and hopeful, as well as, the view that Myanmar's strong debt position, and good economic performance of recent years, have well-placed our country to meet much of the increased spending needed to fight the virus. The statistics and data review are presented in section (V) below.

V. Covid-19 Statistics and Data Review

70. A considerable amount of data, covering several aspects of COVID-19, are available from websites such as:
https://www.worldometers.info/coronavirus/?utm_campaign=homeAdUOA?Si,#countries

This website provides COVID-19 data for the world, together with 213 countries and territories, plus 2 conveyances (cruise ships). For all the countries, the data provided include total virus infected cases, new cases, total deaths, new deaths, total recovered, active cases, serious critical cases, and tests conducted.[39]

71. Such data are often reported in lists mostly based on total confirmed infected cases. This is problematic and can be confusing. Several factors affect estimates of virus health statistical indicators. These are a country's population size; availability of test equipment, and materials; having doctors nurses, and medical experts with training and expertise to conduct tests; how, what, and when preventive control measures are adopted and implemented; and capacity of a country's human, natural, and man-made resources to meet the challenge of a virus that infects without bothering about nationality, race, religious belief, gender preference, age, political orientation, and economic and social status.

[39]In addition following data are also provided: *Total Cases/1M Pop, Total Deaths/1M Pop, Total Test/1M Pop, and size of Population*. Countries with some of these data are presented in tables (7) and (8) in Annex (D) on page 30 of this paper.

72. Keeping the above difficulties in mind, the significant incidents with COVID-19 that Myanmar experienced, which are available in the daily *New Light of Myanmar*, to serve as background for the on-going decision-making and implementing policies, plans, and projects to deal with the virus, are given below.

(a) Two confirmed virus infected cases occurred for the first time in the country on 23 March 2020.

(b) The number of cases rose to 4 on 31 March. The Health and Sports Ministry reported the country's first fatality from the virus on 31 March as well. This occurred when a 69 year old man, a resident of a Yangon township, went to Australia for cancer treatment, stopped over a few days in Singapore on the way back, and died in Yangon from the virus infection.

(c) There were 22 cases and officially announced number of deaths rose to 3, on 8 April.

(d) This was followed by 150 cases and number of fatalities rising to 6, on 29 April.

(e) Moreover, on 29 April, among the 150 cases, 116 were in Yangon region which accounted for 77%. On the same date, of the reported 6 deaths, 5 occurred in Yangon region as well.

73. On 15 July 2020, table (5) in Annex (C) on page 29 shows Myanmar with 337 cases and 6 deaths occupying the seventh spot among ASEAN member countries. Compared with six ASEAN countries with greater virus impacts on the list, Myanmar has performed well. The performance naturally becomes more impressive when compared with the situation in ten countries with the highest virus impact in the world in table (6) which is presented side-by-side with table (5). The comparison with USA at number one spot with 3.5 million infected cases and over 139,000 deaths shown in table (6), and even with UK on the tenth spot with over 291,000 infected cases and nearly 45,000 deaths, confirm Myanmar has achieved remarkable success in responding to the virus threat.

74. Based on the statistical information in these tables, the State Counsellor on 7 July 2020 proclaimed: "Our country is not rich and yet we are able to control COVID-19 effectively up till now. The reason [for this] is we made preparations at the early stage with the vision that COVID-19 will have a great deal of impact on the economy. [Moreover], although our country is not rich, you should not feel disheartened." At the same time, she kept reminding that COVID-19 matter is still not finished; the challenge has not reached its end-stage; and that we must still struggle and keep up our efforts. [40]

75. In mid-July 2020, Health and Sports Minister Dr. Myint Htwe has also claimed Myanmar was able to contain the spread of COVID-19 so far because of measures taken since early January and active public participation and cooperation in the fight against the disease. However, he warned as he has done before, that the people in the country should not let their guard down before COVID-19 is eliminated, as the second wave of the disease could come, as it did in many countries causing major disaster. He regretted this warning is not heeded and

[40] Global New Light of Myanmar, 8 July 2020, p. 3.

noted that people are now relaxed, no longer wearing masks and have abandoned social distancing in crowded places as though they are inviting a second wave of the disease. Furthermore, he pointed out that recent checks (official inspections) found many factories and other workplaces in Yangon are violating Health Ministry's guidelines for preventing infections.[41]

76. The robust national media publicity of Myanmar's impressive performance with low infected cases and only 6 deaths for two and a half months, has contributed to Dr. Myint Htwe's concern that many people, factories and workplaces are no longer observing the Health Ministry's guidelines as they feel the virus threat has been taken care of, and the danger is over.

77. The worldwide spread of COVID-19 virus disease is well-known. Table of its impact on 213 countries and territories, each listed and ranked in descending order in terms of the number of total confirmed virus infected cases is available from several websites. Tables in Annex (D) on page 31 provide this information for 16 September 2020. For example, table (7) for ASEAN countries shows Myanmar occupies Serial Number (SN) five on the ASEAN list. On the 213 country world list Myanmar is ranked 125, with 3,821 total virus infected cases and population estimated to be 54,487,182. The following calculation illustrates the total infected cases per 1 million population:

3821/54487182 = 0.000070127 x 1,000,000 = 70.13 = 70

With a total of 40 deaths, the following calculation gets the total deaths per 1 million population:

40/54487182 = 0.000000734 x 1000000 = 0.73 = 0.7

For 191,696 total tests, the following calculation gets the total tests per 1 million population:

191696/54487182 = 0.00351819 x 1000000 = 3518.19 = 3518[42]

78. Table (8) provides virus impact data for the world and 18 countries. These countries are selected with geographic coverage and variety of experience that are likely to be of interest to Myanmar for dealing with its recent spikes in virus infected cases which are presented in Section (VI) below, after making brief comments on points raised in the following CERP paragraphs:

79. Pages 6-15, Action Matrix and Implementation Monitoring.

My comments: CERP is a relief plan. How much relief it will provide is not known yet as the COVID-19 war is still in progress. A lot depends on the virus. It launches deadly surprise second wave attacks. It goes for soft spots, and we have many soft spots. Action Matrix and Implementation Monitoring provides a list of numerous items with two or three lines written for each item. Substantive information for these items will have to be more fully formulated, explained, and elaborated before comments can be made.

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[41]San Yamin Aung, *"Myanmar Health Minister Urges Renewed Vigilance to Prevent Second COVID-19 Wave*," The Irrawaddy, 29 July 2020

[42]Please note this is the lowest estimate of total tests per 1 million population among ASEAN countries.

VI. Dealing with spikes in virus infected cases in Myanmar

80. Some ideas on how to deal with the recent spike in virus infected cases in Myanmar are presented in this section using Normative and Positive Economic concepts. Normative economics focuses on values such as economic fairness, or "what should be." On the other hand, Positive economics focuses on facts and cause-and-effect and deals with "what is."[43]

81. To explain, some academics say an important way to deal with the virus is by promoting trust between the government and its people. Sweden presents an outstanding example in meeting this requirement. The Swedish Government trusts its people and Swedish people trust their Government. Due to this high level of trust in Swedish society, the country became the only exception by not imposing lockdowns, quarantines, and wearing masks, like in the rest of the world. For instance, the government may recommend individuals to wear masks, but left each person to decide by himself to follow or not to follow this recommendation, without the government taking disciplinary action. Hence, up to late March 2020, Swedish bars, restaurants, hairdressers, gyms and primary and middle schools stayed open, and people were allowed to keep living mainly as they did before in normal times.[44]

82. However, statistics in table (9) in Annex (E) on page 31, show Sweden's total infected cases, tests and deaths (except Denmark for tests) are far in excess compared to other Nordic countries. This poor performance has led twenty-two Swedish scientists to send signed letters to their government to change course in dealing with the virus. Among them was Lena Einhorn, a virologist. When a journalist asked her why a scientist like her acted the way she did, she replied: "Scientists are people and have ideas they cling to. You will be surprised how much science is not ruled by rationality, but by feelings to a large extent."

83. I agree with her. Economists are also people. They have feelings that are usually not rational. Classical (also known as Standard) economic models, with a few simplifying assumptions, will make the models rational and enable economists to spend a lot of time and effort, telling people what they should do. But people want answers and clear decisions on what society cares about, not a long list of what they should do, but a short list of what they are to do. For this, the classical economic model will need to cover a broader range and perspective including what we know about human nature, by supplementing the standard model with behavioural economics, which is a method of economic analysis that applies psychological insights into human behaviour to explain economic decision-making. To get information about this method please search "behavioral economics" on the Internet. I believe this is one measure that should be given serious attention in the Post COVID-19 era.

84. But what is behavioural economics; why should it be given serious attention, and how can it be done? The answer can be provided, as usual, by telling a little story. The story begins with the idea of "risk aversion" which is a key concept that underlies behavioural economics. An example of risk aversion is to ask a person to make a choice between two options, namely,

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[43] "*Normative and positive economics,*" Wikipedia and Investopedia.

[44] "*Sweden's Covid-19 strategy has caused an amplification of the epidemic*," France 24, 17 May 2020.

option (a): A coin is tossed, if head turns up, you will get 5,000 kyats. If tail turns up, you will get nothing; and option (b): No coin is tossed, but you will be given 4,000 kyats. What do you choose?

85. According to human nature and feelings the person will go for option (b) because it is a sure thing. Option (a) offers 1,000 more kyats, but it is risky. The person may end up getting nothing. He does not want to take this risk. He is risk averse.

86. So how does this affect the way we make economic decisions? The recent virus disease spikes in Myanmar provide an opportunity to consider this matter. The issues regarding virus impact on Myanmar have already been discussed in section (V) on virus statistics and data review. We continue by providing further information below by illustrating how the number of infected cases changed in the country during 1 August to 17 September 2020:[45]

(a) From 1 to 7 Aug., Change in virus infected cases: 359 – 353 = 6 cases

(b) From 7 to 14 Aug., Change in virus infected cases: 374 – 359 =15 cases

(c) From 16 to 22 Aug., Change in virus infected cases: 441 – 375 = 66 cases

(d) From 23 to 30 Aug., Change in virus infected cases: 775 – 450 = 325 cases

(e) From 1 to 7 Sept., Changes in virus infected cases:1,518 – 919 = 599 cases

(f) From 8 to 17 Sept., Changes in virus infected cases: 4,043 – 1,709 = 2,334 cases.

87. There have been the following changes in number of deaths From 3 to 17 September as follows:

(a) From 3 to 8 Sept., change in number of deaths: 10 – 6 = 4 deaths

(b) From 8 to 12 Sept., change in number of deaths: 16 – 10 = 6 deaths

(c) From 12 to 17 Sept., change in number of deaths: 60 – 16 = 44 deaths.

88. The spikes came in the last week of August, and by 17 September 2020, Myanmar's 4,043 infected cases and 60 deaths exceeded both these figures for Vietnam and Thailand. Myanmar rose from seventh place with respect to impact of virus disease among ASEAN to fifth place in about a month. These spikes are unexpected and worrisome and in order to guard against a possible deadly second wave virus attack, the Myanmar authorities took immediate steps and implemented the Wave Response Model which goes something like this: "When infections spike, control them by imposing more and stricter lockdowns, mask wearing and social distancing; gradually lift controls as infections go down; and reintroduce them if they go up again."[46]

89. The wave response model, as defined above, is accepted worldwide as a good defensive weapon against the virus. It has both normative and positive behavioural aspects. The normative aspects that require telling people what they should do are easy to formulate, compose and publicize. But this is not so, regarding the positive aspects which require telling

[45]The data for 17 September, is obtained from New Light of Myanmar, 18 September 2020, p. 10.
[46]James Griffiths, "*If New Zealand's Covid-19 outbreak is terrible like Trump says, then how bad rest of the world*?" CNN News, 18 August 2020.

people what exactly they are to do. For example, suppose a spike of infected cases occur in a country. It could develop into a disastrous second wave. The country's authorities take immediate action by tightening controls that has loosened because virus activity has subsided over the past few months. In fact when a spike occurs the people in the country are more interested in knowing the government response to it rather than the increased danger from the virus. Responding to unexpected and frequent changes in virus activity results in uncertainty which in turn brings hardships to consumers and producers, especially those at the bottom of the income scale, who are underpaid, ignored and leading a hand-to-mouth existence.

90. The website of Ministry of Health and Sport (MOHS) provides international standard COVID-19 data and information in charts, graphs and tables. These are useful to make inter-country comparisons as illustrated in tables in Annex (E) on page 31. For instance, table (9) shows by 16 September 2020, Myanmar has conducted 191,696 tests to find out the number of versus infected cases in the country. This is much less than 3.2 mil. tests conducted by Philippines, 2.7 mil. by Indonesia, 2.5 mil. by Singapore, and over 1 mil. by Malaysia and Vietnam. If we consider total tests per 1 million population, we get 3,518 for Myanmar which is the lowest among ASEAN countries. MOHS is cooperating with bilateral and multilateral development partners to improve its health and healthcare data. I am sure more reliable data will help us to come-up with more effective response measures to the virus onslaught.

91. Let us now assume after general elections are held in Myanmar on 8 November, the new administration takes over the governing duty on 1 April 2021 and spends 2 months(up to June 2021) to set up its administrative structure. This means the government authorities (at both the Union and State/Division levels) will be busy from now until June 2021. Let us also assume by June 2021, a new effective anti-coronavirus vaccine has been developed, distributed and administered to all the people in the world and a new normal Post COVID-19 Era has emerged. Call the period from September 2020 to June 2021 as the transition period. During this transition period the virus infection spikes will probably be continuing and academics, researchers, and experts in various fields can collaborate in undertaking some activities where we have capacity to address the virus threat.

92. One activity that comes readily to mind and which I am discussing with my colleagues is to conduct a survey of what is actually happening to those who are hard hit by the coronavirus for an evidence based approach to provide assistance to them. With the virus lurking around in unexpected places the threat of infection will have to be taken into account in implementing the project.

93. An interesting recent development took place in Vietnam, where up to 30 July 2020, for 99 days the country had 468 virus infected cases that were not locally transmitted, and no deaths. Vietnam is a large country with 97.4 million population. It has 870 mile border with China where a robust cross-border economic and social interchanges are taking place. So there is interest on how the country achieved such good performance. The success was attributed to

taking prompt action, relying on lessons drawn from the SARS experience, and one party system that has persuasive powers to ensure protective rules are observed.[47]

94. Hence, there was general feeling that the virus threat had subsided, and fans packed into football stadiums, schools reopened, and customers returned to their favourite cafes. However, a day later on 31 July 2020, the virus emerged raising infected cases to 546 and bringing one death for the first time. Then on 16 September 2020, infected cases rose to 1,063 with 35 deaths. The reason for the sudden upsurge was a mystery, although a likely possibility could be the virus went undetected during the months where there were no reported cases, or due to an error somewhere along the quarantine process with someone released prematurely.[48] Vietnam's case is similar to what happened to Myanmar. It will be useful to keep track of developments there and to exchange views between the two countries.

95. Finally, on another matter, please note in table (10) Bangladesh at world rank 15 has 342,671 infected cases and 4,823 deaths. In refugee camps there, Rohingyas are reported to live in overcrowded flimsy shelters with up to ten or more people in one room. They also use communal latrines and water facilities, and food is distributed to them in limited spaces. These conditions are ideal for infection and spread of covid-19 disease. However, compared to the rest of Bangladesh, such virus impacts in the Rohingya camps are reported to be relatively low, with 130 infected cases and 7 deaths on 7 September 2020.[49] Explosion of virus infected cases and deaths can occur at any time in the Rohingya camps. When that happens, Myanmar can expect to be the main recipient of blame-game accusations.

[47]Stephen Cameron, "*Vietnam has zero coronavirus deaths: Here's why*," CNBC Report, 18 March 2020.
[48]Preeti Jha, "*Coronavirus Vietnam: The mysterious resurgence of Covid-19*," BBC News, 8 August 2020.
[49]Md. Kamruzzaman, "*Covid-19 death toll in Rohingya camps rise to 7*," World, Health,Asia-Pacific, Latest on coronavirus outbreak, Dhaka, Bangladesh, 7 September 2020.

ANNEX (A)

Table 1. **Asian member countries: COVID-19 Cases, Recovered and deaths as of 1 May 2020**

SN	*Country*	*Total Confirmed Cases*	*Recovered*	*Deaths*
01.	Singapore	17,101	1,244	15
02.	Indonesia	10,551	1,591	800
03.	Philippines	8,772	1,084	579
04.	Malaysia	6,071	4,210	103
05.	Thailand	2,960	2,719	54
06.	Vietnam	270	222	0
07.	Myanmar	191	31	6
08.	Brunei	138	124	1
09.	Cambodia	122	119	0
10.	Laos	19	8	0

Source: New Light of Myanmar, 2 May 2020 edition, p. 3.
Note: Countries are ranked in descending order in terms of total confirmed COVID-19 infected cases.

Table 2. **Ten Countries with highest COVID-19 Cases, Recovered and Deaths as of 1 May 2020**

SN	*Country*	*Total Confirmed Cases*	*Recovered*	*Deaths*
01.	USA	1,100,608	156,089	64,022
02.	Spain	239,639	137,984	24,824
03.	Italy	205,463	75,945	27,967
04.	UK	171,253	NA	26,771
05.	France	167,178	49,476	24,376
06.	Germany	163,331	126,900	6,632
07.	Turkey	120,204	48,886	3,174
08.	Russia	114,431	13,220	1,169
09.	Iran	95,646	76,318	6,091
10.	China	82,874	77,642	4,633

Source: New Light of Myanmar, 2 May 2020 edition, p. 7.
Note: Countries are ranked in descending order in terms of total confirmed COVID-19 infected cases.

ANNEX (B)

Table 3. **Asian member countries: COVID-19 Cases, Recovered and Deaths as of 1 July 2020**

SN	*Country*	*Total Confirmed Cases*	*Recovered*	*Deaths*
01.	Indonesia	57,770	25,595	2,934
02.	Singapore	44,122	39,011	26
03.	Philippines	38,511	10,438	1,270
04.	Malaysia	8,640	8,379	121
05.	Thailand	3,173	3,059	58
06.	Vietnam	355	335	0
07.	Myanmar	303	222	6
08.	Brunei	141	138	3
09.	Cambodia	141	131	0
10.	Laos	19	19	0

Source: New Light of Myanmar, 2 July 2020 edition, p. 17.
Note: Countries are ranked in descending order in terms of total confirmed COVID-19 infected cases.

Table 4. **Ten Countries with highest COVID-19 Cases, Recovered and Deaths as of 1 July 2020**

SN	*Country*	*Total Confirmed Cases*	*Recovered*	*Deaths*
01.	USA	2,732,732	1,143,923	130,196
02.	Brazil	1,409,693	790,040	59,745
03.	Russia	654,405	422,931	9,536
04.	India	593,701	353,333	17,521
05.	UK	313,483	NA	43,906
06.	Spain	296,351	NA	28,355
07.	Peru	285,213	174,535	9,677
08.	Chile	279,393	241,229	9,688
09.	Italy	240,978	190,248	34,767
10.	Iran	230,211	191,487	10,958

Source: New Light of Myanmar, 2 July 2020 edition, p. 17.
Note: Countries are ranked in descending order in terms of total confirmed COVID-19 infected cases.

ANNEX (C)

Table 5. **ASEAN Member Countries: COVID-19 Infected Cases, Recovered, and Deaths, 15 July 2020**

SN	Country	Total Cases	Recovered	Total Deaths
01.	Indonesia	80,094	39,050	3,797
02.	Philippines	58,850	20,967	1,614
03.	Singapore	46,878	42,737	27
04.	Malaysia	8,734	8,526	122
05.	Thailand	3,232	3,092	58
06.	Vietnam	381	353	0
07.	Myanmar	337	266	6
08.	Cambodia	165	133	0
09.	Brunei	141	138	3
10.	Laos	19	19	0

Source: New Light of Myanmar, 16 July 2020 Edition, p. 17.
Notes: Countries are ranked in descending order in terms of confirmed COVID-19 cases. In each column, highest is coloured red and lowest is coloured blue.

Table 6. **Ten countries with highest COVID-19 Infected Cases, Recovered, and Deaths, 15 July 2020**

SN	Country	Total Cases	Recovered	Total Deaths
01.	USA	3,548,546	1,160,926	139,189
02.	Brazil	1,933,655	1,213,512	74,336
03.	India	941,630	594,723	24,371
04.	Russia	746,369	523,249	11,770
05.	Peru	333,867	223,261	12,229
06.	Chile	319,493	289,220	7,069
07.	Mexico	311,486	193,976	36,327
08.	Spain	303,699	pending	28,409
09.	South Africa	298,292	146,279	4,346
10.	UK	291,373	pending	44,968

Source: New Light of Myanmar, 16, July 2020 Edition, p. 17.
Notes: Countries are ranked in descending order in terms of confirmed COVID-19 total cases. In each column, highest is coloured red and lowest is coloured blue.

ANNEX (D)

Table 7. **ASEAN Member Countries: COVID-19 Cases, Deaths and Tests, 16 September 2020**

SN	World rank	Country	Total Cases	New Cases	Total Cases/1 M Pop	Total Deaths	Total Deaths/ 1M Pop	Total Tests	Total Tests/1M Pop	Area (km^2)	Population
01.	21.	Philippines	272,934	+3,550	2,484	4,732	43	3,200,528	29,126	300,000	109,886,120
02.	23.	Indonesia	228,993	+3,963	835	9,100	33	2,755,120	10,050	1,904,569	274,132,173
03.	54.	Singapore	57,514	+26	9,815	27	5	2,498,073	426,287	697	5,860,079
04.	94.	Malaysia	10,031	+62	309	128	4	1,407,259	43,363	330,803	32,452,825
05.	125.	Myanmar	3,821	+319	70	40	0.7	191,696	3,518	676,578	54,487,182
06.	128.	Thailand	3,490	+10	50	58	0.8	749,213	10,728	513,120	69,837,459
07.	165.	Vietnam	1,063	0	11	35	0.4	1,009,145	10,348	331,212	97,523,480
08.	184.	Cambodia	275	0	16	0	0	118,717	7,080	181,035	16,767,301
09.	191.	Brunei	145	0	331	3	7	55,087	125,666	5,765	438,362
10.	205.	Laos	23	0	3	0	0	45,612	6,250	236,800	7,297,582

Source: Reported Cases, and Deaths by Country, Territory, or Conveyance, Coronavirus Update. Please visit:
https://www.worldometers.info/coronavirus/?utm_campaign=homeAdUOA?Si,#countries
Note: Countries are ranked in descending order in terms of confirmed COVID-19 total infected cases. There are 213 countries.

Table 8. **World and Major Countries COVID-19 Cases, Deaths and Tests, 16 September 2020**

World Rank	World/ Country	Total Cases	New Cases	Total Cases/1 M Pop	Total Deaths	Total Deaths/1M Pop	Total Tests	Total Tests/1M Pop	Population
00.	World	30,026,460	+308,318	3,852	944,719	121.2	na	na	na
01.	USA	6,828,301	+40,154	20,603	201,348	608	94,369,067	284,746	331,415,157
02.	India	5,115,893	+97,859	3,699	83,230	60	59,429,115	42,975	1,382,863,649
03.	Brazil	4,421,686	+37,387	20,771	134,174	630	14,617,980	68,668	212,879,694
04.	Russia	1,079,519	+5,670	7,397	18,917	130	41,400,000	283,663	145,947,910
05.	Peru	744,400	+6,380	22,511	31,051	939	3,592,221	108,632	33,067,784
08.	South Africa	653,444	+1,923	10,989	15,705	264	3,961,179	66,613	59,465,326
11.	Chile	439,287	+1,304	22,938	12,058	630	2,991,005	156,181	19,150,875
13.	France	404,888	+9,784	6,200	31,045	475	10,000,000	153,129	65,304,439
14.	UK	378,219	+3,991	5,565	41,684	613	20,521,243	301,952	67,961,895
15.	Bangladesh	342,671	+1,615	2,076	4,823	29	1,770,106	10,726	165,035,061
16.	Saudi Arabia	327,551	+621	9,378	4,369	125	5,868,149	168,013	34,926,695
17.	Pakistan	303,089	+665	1,367	6,393	29	3,024,987	13,640	221,777,121
22.	Germany	266,865	+2,021	3,183	9,449	113	14,557,136	173,627	83,841,193
39.	Sweden	87,575	0	8,660	5,860	579	1,393,161	137,764	10,112,638
41.	China	85,214	+12	59	4,634	3	160,000,000	111,163	1,439,323,776
44.	Japan	76,448	+490	605	1,461	12	1,766,478	13,976	126,392,677
73.	Australia	26,779	+40	1,048	824	32	7,120,024	278,539	25,561,996
77.	South Korea	22,504	113	439	367	7	2,178,832	42,490	51,278,659

Source: Reported Cases, and Deaths by Country, Territory, or Conveyance, Coronavirus Update. Please visit:
https://www.worldometers.info/coronavirus/?utm_campaign=homeAdUOA?Si,#countries
Note: Countries are ranked in descending order in terms of confirmed COVID-19 total infected cases. There are 213 countries.

ANNEX (E)

Table 9. **Nordic Countries: COVID-19 Cases, Deaths and Tests, 16 September 2020**

SN	World rank	Country	Total Cases	New Cases	Total Cases/1 M Pop	Total Deaths	Total Deaths/1 M Pop	Total Tests	Total Tests/1M Pop	Population
01.	39.	Sweden	87,575	0	8,660	5,850	579	1,393,161	137,764	10,112,638
02.	78.	Demark	20,571	0	3,549	633	109	3,082,836	531,839	5,796,558
03.	90.	Norway	12,498	+105	2,302	265	49	913,283	168,185	5,430,213
04.	99.	Finland	8,750	+25	1,579	339	61	837,173	151,044	5,542,566
05.	147.	Iceland	2,189	+15	6,406	10	29	238,738	698,651	341,713

Source: Reported Cases, and Deaths by Country, Territory, or Conveyance, Coronavirus Update. Please visit:
https://www.worldometers.info/coronavirus/?utm_campaign=homeAdUOA?Si,#countries
Notes: Countries are ranked in descending order in terms of confirmed COVID-19 total infected cases. World rank is out of 213 countries..