

Sustainable Development Goals and Healthy Living in Post Covid-19[#]

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Introduction

When this research started in mid-August 2020, there were more than 21.83 million coronavirus cases reported in the world. By mid-January 2021, infected cases have exceeded 91 million—more than 4-fold increase in less than half a year. At the time of writing, there are 90 million recovered cases, with 2.5 million deaths representing 2.7% of total infected cases. The U.S. is leading in the “marathon race of Covid-19”, sadly with more than 26 million infected cases and even worse, about 380,000 deaths¹. Living with the pandemic is not the “Game of Thrones” that the story line is twisting here and there among competing claimants.

The approach from containing the outbreak to total elimination of pandemic is full of complexity. Preventing foreign visitors from entering a country and at the same time establishing quarantine facilities are not easy tasks. Entry refusal is politically correct but diplomatically incorrect. Quarantine is a necessary evil but humanely wrong. They are not the best

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¹ <https://www.worldometers.info/coronavirus/> (accessed 10 January 2021).

countermeasures, but understandably acceptable although some people may disagree. Just as important, even with giving vaccine now and in the coming months, it is professionally labor intensive and time consuming. The immunization needs concerted efforts in each country and enhanced cooperation between all countries in the world.

Since the outbreak in Wuhan, Covid-19 continues to wrack havoc all over the world. The devastation persists with many countries started to roll out Covid-19 vaccines that include Pfizer-BioNTech, Oxford-AstraZeneca, Moderna, Johnson and Johnson in the last three months. Likewise, Russia, China and WHO have also authorized Sputnik V, Sinovax, and Covax, respectively. COVID-19 vaccines trigger immune response, thus preventing the pandemic caused by SARS-CoV-2. The efficacy of these vaccines varies. Notwithstanding, our world still cannot flatten the curve in a short time horizon.

Debates persist with respect to the efficacy of different vaccines, however everyone inevitably remains hopeful that the Covid-19 vaccines will achieve herd immunity against in a foreseeable future. It is worth noting it needs two to tango. Medical and health community need people at large—regardless of background—to work together constructively to accomplish herd immunity. This is easier said than done. The journey ahead might be a long and winding one but prevention no doubt is of utmost important effort to begin with. Louis Pasteur said: “When meditating over a disease, I never think of finding a remedy for it, but, instead, a means of preventing it”.

The pandemic has disrupted a wide range of supply chains, which raised high unemployment rate, income reduction, increased medical expenses, interruption in education, employment and the like. International Monetary Fund (IMF) estimates the world output has contracted -3.5% in 2020, whereas the projection for 2021 and 2022, respectively, is 5.5% and 4.2%². On the other hand, the coronavirus has caused mass unemployment around the world. The World Bank estimates that: “.....the effects of the COVID-19 pandemic, projects that an additional 88 million to 115 million people will be pushed into extreme poverty, bringing the total to between 703 and 729 million”³. Optimism is surrounded by despair. Restoring the serious devastation to the economy will likely take some time. A few countries—e.g., China—might have a V-shaped recovery. Most countries are battling for a U-shaped restoration. Anyway, the coronavirus pandemic has seriously undermined

² IMF World Economic Outlook Update January 2021, <https://www.imf.org/en/Publications/WEO/Issues/2021/01/26/2021-world-economic-outlook-update> (accessed 30 January 2021).

³ <https://www.worldbank.org/en/topic/poverty/overview>(accessed 30 January 2021).

human development. Human Development Index (HDI)—the metric for measuring the average achievement relating to three crucial dimensions of human development, viz., longevity, education/knowledge, and decent income to have a proper standard of living—is deteriorating in developed countries as well as the developing world⁴. HDI is one of the crucial benchmarks in appraising the achievement of Sustainable Development Goals (SDGs) launched in 2015.

The decline of HDI in Covid-19 causes two kinds of reaction—doubts and skepticism—concerning our livelihoods in post Covid-19. Instead of giving an answer, doubt instigates uncertainty. On the other hand, skepticism leads people to think critically what alternative approaches are in enhancing the promotion of SDGs for transforming the tragedy to potential in making a healthy living for everyone post Covid-19. This in and of itself requires a different study, which is outside the scope of this paper. Nonetheless, we intend to at least underline how several SDGs can contribute to making a healthy living for everyone in the coming period.

The objective of this paper is two-fold. The first part examines the relationship between globalization and Covid-19. In this context, we conduct two regression analyses: viz., death and infected cases; death, inbound tourists, and infected cases. The second part demonstrates the role of several SDGs in strengthening a healthy living post Covid-19. From these two analyses, this paper provides practical suggestions on how—Japan and her neighbors, the ASEAN, and India—can cooperate constructively to further foster achievement of SDGs as the foundation for a healthy living post covid-19.

1. Globalization and Covid-19

While this pandemic is well reported and updated in media, its linkage with globalization has not attracted serious academic discussion. This situation is the inconvenience truth. Technological change has driven and will continue to accelerate globalization, in which the intensity of cross border exchanges of goods, services and capital has increased amazingly in the last quarter of the century. Moreover, movement of people across national boundaries has also increased rapidly. These two forces have indeed flattened our world. Equally serious, the quest for a higher level of living standards has lifted our income, however it also triggers a spectrum of events that has intensified mass production and consumption spanning the globe. Both aspects induce cross border movement of people. Positive results from both the travelers and the host have been well discussed and documented. However, stories on

⁴ See UNDP, <http://hdr.undp.org/en/content/human-development-index-hdi>.

illicit activities such as human trafficking, money laundering, smuggling of precious stones and illicit drugs, and spread of human-to-human infection diseases are, unfortunately, mostly been kept under the carpet.

There are several crucial premises in contemporary globalization. The concepts such as nation-state, market economy, humanitarian requisites such as fundamental human rights, civil society, fairness of distribution, social justice, social well-beings in individual health and hygiene have increasingly becoming blurred. It is doubtful if everyone understands these concepts in the same manner—even those people who have close contacts either inside or beyond their national boundary. In this context, their contentions are not only necessarily caused by differences in civilization, cultures, and values, but also on the meaning of "sustainable social well-beings".

No one wants to dispute that globalization means openness. This process, at least, implies to the extent of borderless economy. Supporters of globalization insist openness or free trade increases and promotes competitiveness, but they have not examined its shadow sufficiently. The shadow comprises of situations where government losses room for maneuvering policy intervention to support some citizens who are affordable to surf along with globalization waves but might be infected with contiguous diseases while traveling abroad. Equally critical, if not more, there are also some citizens who are poorer but being infected the contiguous diseases at home. Hence, while governments encourage openness on the one hand, on the other hand they lose control of a better governance that adds misery to vulnerable people who live in the sovereign territory.

Dani Rodrick (2012) shows that the nation state, democratic politics, and deep integration are in a triangular relation. These ideals, however, also create a "trilemma" in political economy. Openness brings deeper integration with the rest of the world. Democratic politics promote policies that support openness and enhanced competitiveness in international marketplace. However, nation state is the foundation for democratic politics, it is against immoral and unethical competition that produces a large share of the have-not that defeats the greater good of fairness, equality, social well-beings within the sovereign territory. Hence two elements can be mutually inclusive, but not three. Democratic politics enhance deep integration and vice versa, but nation state does not respond to deep integration because it is obliged to support a large group of vulnerable citizens—both with and without globalization. Nation state and democratic politics are also mutually inclusive if deep integration with the rest of the world is not being included.

People who are involved in activities related to the negative externality still present diversified opinions to the extent of disagreement instead of "agree to disagree". This is not only truly unproductive, but sometimes, it

is the inconvenience truth of globalization that is often being avoided in public policy and discourse. Even when the inconvenience truth is voiced, the discussion is often ambiguous with what priority should be undertaken to achieve sustainable social well-beings. Even if there was an agreement on the type of mechanism for enabling who and how to realize the undertaking, one still could not overlook the fact that, quite often, it did not resolve convincingly because, in fact, that is in and of itself an inconvenience truth.

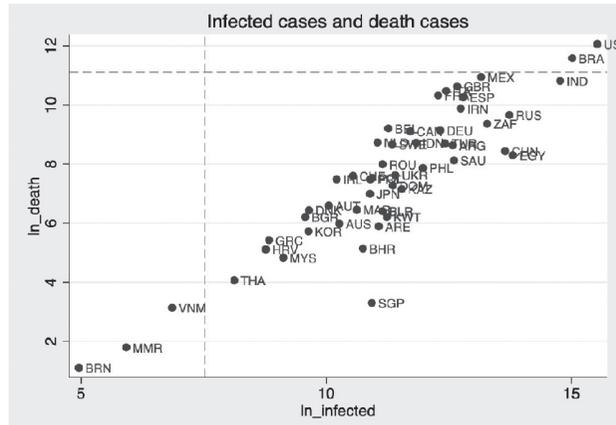
The question to ask is how can governments, international organizations, scientists, medical, and health care professionals and the like work together to contain and arrest Covid-19 in the coming months? The inconvenience truth must not obstruct the mission. The goal instead is clear, although the roadmap will require well-defined milestones to accomplish it. Furthermore, in the post-Covid days, with hindsight, to deal with another fatal disease of equivalent magnitude, a stronger cooperation between countries and among a group of countries requires forward-looking with specific—in enhanced institutional, in organizational, and in technical capability—in disease control and prevention. We shall examine the relationship between globalization and the pandemic or a large scale of outbreak of life-threatening diseases.

2. Examining the relationship between globalization and Covid-19

This section analyses the relationship between international travelers or tourists and Covid-19 in terms of infected cases and death. This analysis selected 51 countries (see Table A1 in Annex). Data for this empirical analysis was based on available information in mid-August 2020. This investigation focuses on the relationship between international travelers, infected cases, and deaths. Figure 1 shows the relationship between infected cases and deaths. This scatter diagram illustrates both the US and Brazil have above average values of infected cases and deaths. This is not surprising because they are the two front runners in this “marathon”.

Results in Tables 1 are quite indicative. This regression explains that about 87 per cent of the relationship between deaths and infected cases. The estimated coefficient “infected” (i.e., infected cases) is statistically significant at 1%. Independent variable in Table 1 shows the estimated coefficient suggests 100 infected cases increment influences an increase of about 3 deaths. The estimated coefficient may be higher, because as shown in Figure 1, the U.S. and Brazil are both higher than the mean of infected cases and deaths. We have conducted a robust regression test as shown in Figure 2. Normalized residual squared is the difference between the predicted value and the actual (or observed) value. Leverage means the distance between independent variable and its mean. A high leverage point can influence the

Figure 1 Scatter diagram of infected cases and death



Note: vertical and horizontal dash line is mean of infected cases and deaths, respectively.

Table 1 Regression results (dependent variable: death; independent variable: infected cases)

$$\text{Death} = 888.86 + 0.029 \text{infected}$$

death	Coef.	Std. Err.	t	p> t
Infected	.0297	0.0016	18.50	0.000
constant	888.86	1,755.8750	1.08	0.287

Note: Adj. R-squared=0.8699, F-value=340.10.

Figure 2 Robust regression of deaths and infected cases

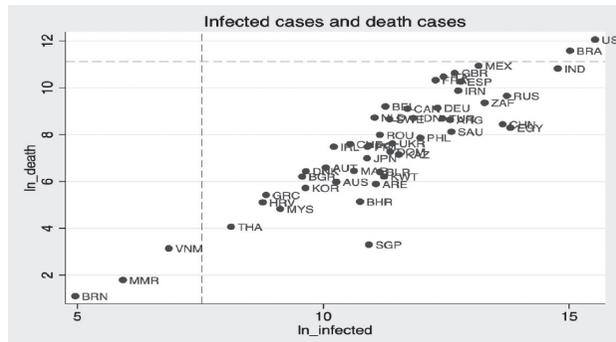


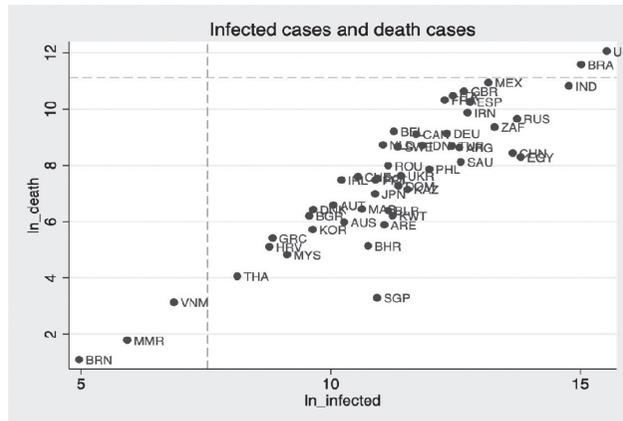
Table 2 Regression results between deaths, tourists, and infected cases (dependent variable: death; independent variables: tourist, infected cases)

$$\text{Death} = -3,326.88 + 0.0003 \text{tourist} + 0.0271 \text{infected}$$

death	Coef.	Std. Err.	t	p> t
tourist	0.0003	0.0008	3.50	0.001
infected	0.0271	0.0017	16.47	0.000
constant	-3,326.875	3173.375	-1.53	0.1323

Note: Adj. R-squared= 0.8815, F-value= 178.55.

Figure 3 Robust regression of deaths, tourists, and infected cases



estimation (i.e., the estimated coefficient).

Table 2 shows the regression that explains about 88 percent of the relationship between deaths, tourists, and infected cases. The estimated coefficients suggest that an increase of 1 million tourists influences 300 deaths, whereas a 1,000 increment of infected cases affects 27 deaths. The latter is quite close to the estimated result shown in Table 1. The former hints that mobility in globalization has a bearing in the spread of SARS-CoV-2. When compared with the analytical sample shown in Table A1 (about 1.14 billion of tourists), the estimated coefficient for infected cases has about half of the explanatory power. Figure 3 shows the robust regression result, which clearly indicate more countries than those in Figure 2 have leverages in this sample.

3. A case examination: present situation of Covid-19 in the context of ASEAN and India

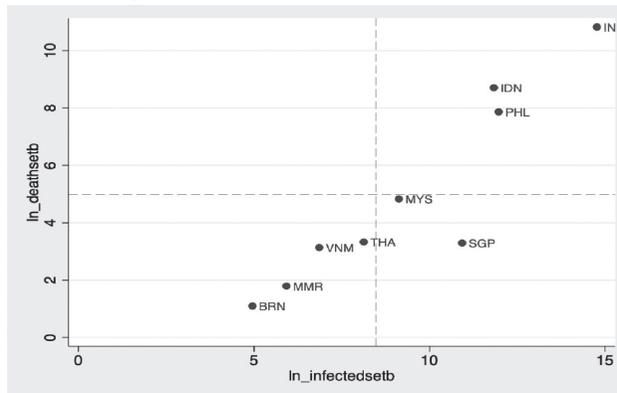
Table 3 shows the basic facts of Covid-19 pertain to the ASEAN and India. There were about 148 million (11 percent of world total) international tourists visited these 13 countries (in 2018). There are approximate 2.95 million (20.3 percent of world total) infected cases as of 16 August 2020. The deaths are approximately 59,000 (about 8 per cent of world total).

Figure 4 shows there are three distinct groups: India, Indonesia, and the Philippine which lie quite far away from the means of infected cases and deaths; Malaysia and Singapore are situated above the mean of infected cases but with lower than the mean of deaths; Thailand, Vietnam, Myanmar, and Brunei all are below the means of infected cases and deaths. The first group of countries have done relatively well in either complete lock-down or strict

movement control⁵. But, population size, giving non-existence of medicines and vaccines, inevitably caused quite significant deaths in each respective country. Lower deaths in Malaysia and Singapore are the results of imposed movement control and strict quarantine measures⁶. However, pockets of infected clusters have resulted in many people being infected. In the third group, Thailand and Vietnam have done well in containing the spread⁷, whereas Myanmar and Brunei are not seriously affected because of their lesser exposure to globalization waves.

Our regression model explains about 99 per cent of the relationship between deaths, inbound international travelers, and infected cases. The estimated independent variable—infected cases—is statistically significant at 1%, whereas international inbound travelers are not statistically significant. The former suggests that a 1,000 increment of infected cases influences about 19 deaths. This is about 10 fewer deaths than the estimated result of 51 countries shown earlier. International inbound travelers do not influence death cases because of strict border controls.

Figure 4 Scatter diagram of the ASEAN-India infected cases and death



⁵ South Morning China Post, Free Malaysia Today, New Straits Times, New York Times, *The Economist* and other news medias.

⁶ Ibid.

⁷ Ibid.

Table 3 The ASEAN-India tourists, infected cases, and deaths (person)

		Tourist	Infected	Death
Laos	LAO	3,770,000	22	0
Brunei	BRN	278,000	142	3
Cambodia	KHM	6,201,000	273	0
Indonesia	IDN	15,810,000	137,468	6037
Malaysia	MYS	25,832,000	9,175	125
Myanmar	MMR	3,551,000	374	6
Philippines	PHL	7,168,000	157,918	2600
Singapore	SGP	14,673,000	55,661	27
Thailand	THA	38,178,000	3,376	28
Vietnam	VNM	15,498,000	951	23
	sub-total	130,959,000	365,360	8913
India	IND	17,423,000	2,589,208	50,084
	Total	148,382,000	2,954,568	58,997

Source: Same as Table A1.

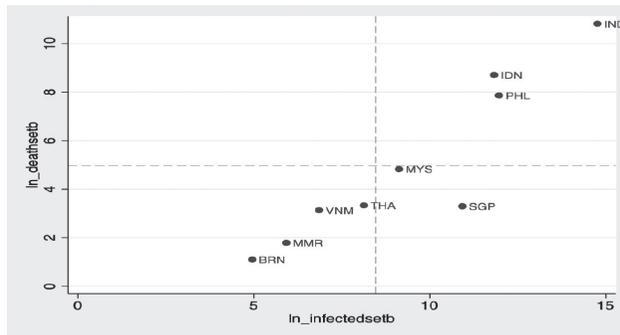
Table 4 Regression results between deaths, tourists, and infected cases in the ASEAN-India (dependent variable: death; independent variables: tourist, infected cases)

$$\text{Death_setb} = 81.7259 + 6.65e-06 \text{tourist_setb} + 0.0193 \text{infected_setb}$$

death_setb	Coef.	Std. Err.	t	p> t
tourist_setb	6.65e-06	0.0004	0.19	0.856
infected_setb	0.0193	0.0052	37.65	0.000
constant	81.7259	610.7531	0.13	0.897

Note: Adj. R-squared= 0.89934, F-value= 718.64.

Figure 5 Robust regression of deaths, tourists, and infected cases in the ASEAN-India



Statistically, India and Indonesia may have influenced substantially on the estimated results. Figure 5 shows the leverage point of India, whereas normalized residual square of Indonesia is relatively high. Interestingly, Thailand, despite her position shown in Figure 4, has quite a high leverage point.

In comparing two sets of countries, the findings show international inbound tourists did not affect deaths in the ASEAN-India regional group. This implies the border control and the strict domestic movement restriction in each country before mid-August 2020 helped to contain the outbreak. Many countries in another set have lifted the restrictions earlier than necessary. Consequently, instead of reinvigorating economic activities and a freer mobility for normalizing social interactions among citizens, it is quite apparent that the reemergence of transmission has become alarmingly high. For the economy to maintain similar level of output, *ceteris paribus*, the pandemic creates a critical situation where unemployment rate increases the lesser control of containment⁸. As of to date, the intensity of the trade-off has not diminished yet. Moreover, mass inoculation against the pandemic accelerated supplies and overcoming the challenge of logistical challenges of vaccine distribution. Hence, it is incorrect to ignore the clear and present danger poses by the invisible Covid-19.

4. SDGs and a healthy living

Our estimated results clearly show that infected cases and tourists are related to deaths in the sample of 51 countries, whereas infected cases have influenced deaths, but not tourists, in the sample of the ASEAN-India—a regional group of 11 countries. These analytical findings imply that if we did not flatten the curve, then the number of deaths will not decline. Vaccines indeed are crucial antidote, but it is expected to take a time to achieve strong herd immunity. For this reason, how people can improve their life to achieve a healthy lifestyle in a post pandemic world has attracted immense attention.

The Government of Canada defines healthy living as: “At a population level, healthy living refers to the practices of population groups that are consistent with supporting, improving, maintaining and/or enhancing health. As it applies to individuals, healthy living is the practice of health enhancing behaviors, or put simply, living in healthy ways. It implies the

⁸ A production possibility curve illustrates the economy’s opportunity set. In this example, unemployment rate and infected cases form an opportunity set for the same level of output. Hence, others remain constant, unemployment rate rises with the increase in infected cases (or lesser control of containment). The magnitude of the trade-off decreases if the production possibility curve shifted inward.

physical, mental, and spiritual capacity to make healthy choices⁹. A study by Harvard T.H. Chan School of Public Health shows five areas—viz., healthy diet, healthy physical activity level, healthy body weight, non-smoking, and moderate alcohol intake—improve a healthier lifestyle¹⁰. These are self-explanatory.

This study contends that SDGs are essential catalysts in building a resilient post pandemic society where healthy living is the new normal of life on the planet earth. The 17 Sustainable Development Goals and 169 targets were adopted by the United Nation's General Assembly on 25 September 2015. Annex 2 shows all SDGs. Every society must not wait until the curve is flattened or herd immunity is achieved. The imperative to work resolutely with one another is urgent. For this purpose, constructive voices are of utmost important instead of skeptical views. We do not deny our ability to cover every SDG in creating a healthy living in every society because the scope is broad. Therefore, this paper especially focuses on Goal 3—"Ensure healthy lives and promote well-being for all at all ages". While all SDGs are mutually inclusive, but Goal 3 is closely inter-related to Goals 1, 2, 4, 5, 6, 8 and 9.

Healthy lives and promote well-being for all at all ages are the results of the entire elimination of poverty (Goal 1), and at the same time, the end of hunger, achieve food security and improved nutrition and promote sustainable agriculture. (Goal 2). It also causes the achievement of Goal 4—ensure inclusive and equitable quality education and promote lifelong learning opportunities for all on one hand, and on the other hand, gender equality and the empowerment of all women and girls. Goal 1 to goal 5 together mutually reinforce goals 6-8, viz., availability and sustainable management of water and sanitation for all, the access to affordable, reliable, sustainable, and modern energy for all, and the promotion of sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.

Since the United Nation General Assembly in September 2015, international community works concertedly to support the achievement of SDGs. The OECD (2016) identifies four broad areas of action: "Apply an SDG lens to the OECD's strategies and policy tools; Leverage OECD data to help analyze progress in the implementation of the SDGs; Upgrade the OECD's support for integrated planning and policy-making at the country level and provide a space for governments to share experiences on governing for the SDGs; Reflect on the implications of the SDGs for OECD external

⁹ <https://www.canada.ca/en/public-health/services/health-promotion/healthy-living.html> (assessed 15 December 2020).

¹⁰ <https://www.health.harvard.edu/blog/healthy-lifestyle-5-keys-to-a-longer-life-2018070514186> (assessed 15 December 2020).

relations.” Similarly, JICA (2016) places special emphasis on the following SDGs to make a large impact by its assistance: “2 (Zero hunger), 3 (Health), 4 (Education), 6 (Water/sanitation), 7 (Energy), 8 (Economic growth), 9 (Industry/infrastructure), 11 (Sustainable cities), 13 (Climate actions), and 15 (Forests/biodiversity)”.

Just as important, the Government of Japan has launched the basic plan for the formation of Society 5.0, which is defined as¹¹: “A human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space.” In this connection, Japan Medical Association, in its “Report of the 4th Medical Association Future Vision Committee” “Medical Association in” Society 5.0¹², has underlined that “the government defines Society 5.0 as “a human-centered society that achieves both economic development and resolution of social issues through a system that highly integrates cyber space and physical space,” and promoted Society 5.0 to promote the SDGs. It has “Society 5.0 for SDGs” to achieve the SDGs”.

The preceding paragraphs have given three specifics of the work undertaken at the governmental and inter-governmental levels with respect to the importance of SDGs. The following example demonstrates integration of individual’s efforts in using a traditional local produce to complement governmental role in fostering the achievement of SDGs. The traditional local produce is sourced from the root of *Panax natoginseng*¹³, which is cultivated in Yunan province, China. Takahiro Shirai branded this produce as a herb supplement *Shirai Denshichi* that can be used for inhibiting and healing coronary disease. Zhou *et al.* (1981) have successfully identified two additional dammarane-saponins that are vital to explain the effectiveness of *Panax natoginseng*. The conclusion of a study by Konoshima *et al.* (1996) is: “*P. natoginseng* might be a valuable anti-tumor-promoter and chemopreventive agent in chemical carcinogenesis, and that one of the active principles of the *P. natoginseng* extract might be ginsenoside Rg₁¹⁴”. Equally, as shown in Annex 3, clinical studies in China have demonstrated the effectiveness of *Panax natoginseng* in curing a variety of diseases. The effective rate of each disease (19 diseases) ranges from 75.0% (the lowest) to 100%.

In addition, Shirai is also promoting three other healthy merchandises

¹¹ https://www8.cao.go.jp/cstp/english/society5_0/index.html (accessed 25 November 2020).

¹² <https://www.med.or.jp/nichiionline/article/009397.html> (accessed 25 November 2020).

¹³ In Chinese it is called *tiánqī* or *sanqī* (literally means three-seven root). Takahiro Shirai started his organic cultivation in Yunan in 1994.

¹⁴ “Rg1 appears to be most abundant” in *Panax natoginseng*. <https://pubchem.ncbi.nlm.nih.gov/compound/Ginsenoside-RG1> (accessed 27 December 2020).

from *Panax natoginsengi*: powder; blended with Japanese tea powder; earthen kiln vinegar powder. Each respective merchandise is branded as *Shirai Denshichi Powder*, *Shirai Denshichi Tea*, *Shirai Denshichi Kama*. *Shirai Denshichi's* merchandises are effective not only in curing a variety of diseases, but equally important, if not more, they strengthen individuals' immune system too. We are also confident these products inhibit aging on one hand, and the enhancement of healthy living on the other hand. Consequently, the continuous intake of *Panax natoginseng* in the form of its derivatives will surely ensure a healthy lifestyle, which enhances the deterrence of life-threatening diseases. The outcome leads to the accomplishment of SDGs, which are strongly link to the practical conception of human security—"freedom from fear and freedom from want". The goal is clear, but that is still quite a long journey. The clear and present commitment from every member of the society is how to accelerate the pace of all SDGs in general, and Goal 3—ensure healthy lives and promote well-being for all at all ages—in particular. However, there are about 800 million extremely poor people (at US\$1.9-a-day, PPP) who could not afford to acquire healthy nutrients and supplements. Therefore, the provision of improved public health and the support to enhance individual hygiene to save lives and to protect people from health threats are of utmost importance. For this purpose, the stimulation of SDGs investment in lesser developing countries will certainly improve the capability in disease control and prevention.¹⁵ Kato *et al.* (2017) call attention to: "a [firm's] strategy should integrate long-term strategy and short-term strategic objectives using BSC [balanced scorecard], and the evaluation method using BSC may contribute to promotion of the SDGs investment". We stand by their statement.

5. Japan+3-ASEAN-India: prospects for promoting SDGs and a healthy living

Japan established close relations with Southeast Asian countries and India more than millennia ago. Buddhism and trade were two drivers of exchanges between this group of countries. Their relationship has grown with leaps and bounds in the last five decades, especially with sustained intensity of exchanges in goods, services, capital, and people. Likewise, China and South Korea have strengthened their relationships with Southeast Asian countries and India in the last four decades. These two northeastern countries historically were also linked to Southeast Asia region and India through Buddhism and trade.

¹⁵ We appreciate a valuable comment from Jiro Hanyu on this subject matter.

Regional integration in Southeast Asia region started with the formal establishment of the Association of Southeast Asia Nations (ASEAN) on 8 August 1967. Since then, notwithstanding the First-Second divide, the collapse of the Berlin Wall, this regional group has grown with accelerated development in the last half-century. The accession of Vietnam, Laos, Myanmar, and Cambodia in 1990s have elevated the level of development to a higher plateau in the last two decades. Their sails were not necessarily smooth. Occasionally, tides were high, and wind was strong. Every member country is pushing deeper and wider regional integration with pragmatic approach based on market-based principles. Each country also adheres to the principle of non-interference. Equally crucial, this group of countries abides by “agree to disagree”. The code of conducts, without question, have facilitated the creation of the ASEAN Community—Political-Security Community, Economic Community, and Socio-Cultural Community—in 2015. A wide variety of regional fora is created for transforming the diversity to “One Vision, One Identity, One Community”¹⁶.

India’s Look East Policy, launched in 1991, has not only reignited but it has shortened both the socioeconomic and psychological distance with countries in Southeast Asia region. French oriental scholar George Coedes’ theory of “Indianized Kingdom” claimed Southeast Asia region was influenced by Indian civilization before Common Era. Although this theory was eloquent, but it could not explain the spread of Theravada Buddhism in the continental Southeast Asian countries (Myanmar, Thailand, Cambodia, Laos). Instead, strong influence of “Pali-ism” (Pali Canon) caused these countries to spontaneously receptive to Indian civilization in the 4th and the 5th Century¹⁷. From this historical context, India indeed has rediscovered the long lost cultural and trade linkages with Southeast Asia.

In last few decades, enhanced market-based activities have generated higher intensities of development in every country and between countries in this group of nations. Their closer cooperative relations have created the ASEAN+3 (China, Japan, and South Korea), the ASEAN and India, the ASEAN+6 (China, Japan, South Korea, India, Australia, and New Zealand). These solid cooperative foundations can indeed undoubtedly serve as vehicles in pushing stronger efforts for the achievement of SDGs, which are the keys to realizing a healthy living of every individual of society.

Impressive Indian diplomacy and long historical relationship have cemented the establishment of the “Framework Agreement on Comprehensive

¹⁶ <https://asean.org/storage/2012/05/7.-Fact-Sheet-on-ASEAN-Community.pdf> (accessed 15 August 2020).

¹⁷ Kiriya Noboru and others (2019).

Economic Cooperation Between the Republic of India and the Association of Southeast Asian Nations” (Framework Agreement) on 1 July 2004¹⁸. The Framework Agreement led to the creation of the ASEAN-India Free Trade Agreement (AIFTA) on 1 January 2010¹⁹.

Since then, trade flows between the ASEAN-India have picked up notably. Total trade value of this group of countries in 2019 was \$3,590 billion, which equates about 9.5 per cent of total world trade²⁰. This is a substantial share from a group of 11 countries. India exports to and imports from the ASEAN in 2019 was \$33.80 billion and \$57.49 billion, respectively. India’s trade deficit was \$23.7 billion, quite an alarming situation. On the contrary, the ASEAN’s exports to and import from India was \$360.9 billion and \$337.20 billion, respectively (see Table A2 for the intra-ASEAN-India trade). The ASEAN’s trade surplus was equivalent to India’s trade deficit. Therefore, the Indian government is presently asking for the reduction of trade deficit from her counterparts in Southeast Asia. Although this is an alarming situation, this regional grouping must not let it blur their quest for a deeper and a broader economic integration in the spirit of Framework Agreement.

In theory, total exports balance total imports. The deficit between India and the ASEAN is compensated by the former’s surplus with other countries or regional groups. In this respect, the parties concerned must work together in leveling the imbalance. Otherwise, everyone is “not seeing the wood for the trees”, which will defeat the spirit enshrines in the Framework Agreement. More importantly, trade, in and of itself, is not the sole purpose for a closer integration between the ASEAN and India. This is similar for Japan+3-the ASEAN too. There is a broad spectrum of mutually beneficial cooperative issues that require equal attention as in the trade front. In this regard, stronger ASEAN-India cooperative relations in general, and especially pushing for new cooperation in disease control and prevention in the post-Covid era is surely mutually beneficial. This paper does not exclude Japan+3, but the case of ASEAN-India is also applicable to an extended group of countries—Japan+3-the ASEAN-India.

¹⁸ https://asean.org/?static_post=framework-agreement-on-comprehensive-economic-cooperation-between-the-republic-of-india-and-the-association-of-southeast-asian-nations-2 (access 14 August 2020).

¹⁹ <https://www.asean.org/wp-content/uploads/images/2015/October/outreach-document/Edited%20AIFTA.pdf> (accessed 14 August 2020).

²⁰ <https://www.trademap.org/> (accessed 14 August 2020).

5-1. Disease control and prevention in the post-Covid era: A case of the ASEAN-India

The ASEAN and India have defined the objectives of Framework Agreement²¹:

- ① Strengthen and enhance economic, trade and investment co-operation between the Parties;
- ② Progressively liberalize and promote trade in goods and services as well as create a transparent, liberal and facilitative investment regime;
- ③ Progressively liberalize and promote trade in goods and services as well as create a transparent, liberal and facilitative investment regime;
- ④ Explore new areas and develop appropriate measures for closer economic co-operation between the Parties; and
- ⑤ Facilitate the more effective economic integration of the new ASEAN Member States and bridge the development gap among the Parties.

The Parties are working diligently in achieving the objectives in the last decade. The ferociousness of invisible Covid-19 is unparalleled in recent history. Thus, mutual exploration for specific field of cooperation is not in the radar. It is certainly “better late than never” to work together in determining what kind of modalities for cooperating in disease control and prevention in the post-Covid era. We must not ignore there are many known unknowns in life-threatening diseases or viruses. For this reason and others, it is politically, socioeconomically, and morally right for member states of the ASEAN-India to resolve the details in realizing this area of cooperation.

The ASEAN has a regional setup known as “The ASEAN Emergency Operations Centre Network for Public Health Emergency” (ASEAN EOC Network). It falls within the purview of the ASEAN Health Ministers Meeting, under the umbrella of the ASEAN Socio-Cultural Community. In addition, each member state has a national organization for working closely with the ASEAN EOC Network. From the early stage of Covid-19, the ASEAN EOC Network has contributed enormously to data collection, information sharing, expertise and experience sharing among member states and many other dialogue partners such as China, Korea, Japan, Australia, France, EU, and others. It also disseminates information regularly for raising awareness and strengthening information flows of disease control and prevention.

²¹ https://asean.org/?static_post=framework-agreement-on-comprehensive-economic-cooperation-between-the-republic-of-india-and-the-association-of-southeast-asian-nations-2.

Table 5 Total trade in 2019: the ASEAN and India (billion USD)

	Import	Export
Brunei Darussalam	5.10	7.04
Cambodia	23.97	19.24
Indonesia	170.73	167.00
Lao PDR	5.80	5.81
Malaysia	204.91	238.09
Myanmar	18.58	18.00
Philippines	117.25	70.93
Singapore	358.97	390.33
Thailand	216.80	233.67
Vietnam	253.44	264.61
India	478.88	323.25
Total	1,854.43	1,737.98

Source: <https://databank.worldbank.org/source/world-development-indicators> (retrieved 13 August 2020).

To stimulate construction deliberation among the Parties, this paper proposes the establishment of the “ASEAN-India Disease Control and Prevention Center (AI-DCPC)”. In this respect, member states of the ASEAN-India not only can expand the ASEAN EOC Network, but also add new specific response measures in establishing a permanent, action-oriented, information and expertise sharing, strengthening hard and soft institutional and organizational infrastructures, capacity building human resources (including leadership in disease control and prevention), both at national and local levels in each member country. Furthermore, AI-DCPC is a good vehicle to foster public health and to strengthen individual hygiene for masses of poor inhabitants in its member countries. Equally important, the proposed AI-DCPC can solicit cooperation from the established institutions of the similar kind in each important dialogue partner (China, Japan, Korea, Australia, New Zealand).

A concluding remark: The promotion of SDGs and a healthy living in Japan+3-the ASEAN-India

As discussed earlier, utilizing traditional local produce such as *Panax natoginseng* can be integrated into modern product such as health supplement to benefit and achieve a long-lasting healthy lifestyle—SDG Goal 3—for every individual regardless of background on our planet earth. Special emphasis on SDG Goal 3 along with the implication of the ASEAN-India disease control and prevention in post Covid-19 is undoubtedly one of the main drivers for

a durable, safer, and healthier livelihood for everyone.

There remains a broad spectrum of specific issues of greatest concerns such as financial and human resources, medical and health expertise, and others that require detailed study. This task is beyond the scope of this paper, but we intend to study it in the foreseeable future. This paper has examined, alas narrowly, the imperative and urgent subject matter that is of extreme relevance to the home of 3.5 billion citizens. The main intention is to raise awareness of urgency in driving the achievement of SDGs—especially with respect to SDG Goal 3, the shift to enhanced individuals' health and immunity, and the provision of better public health and the assistance to improve personal hygiene. This direction raises the imperative to establish an inter-governmental but not-for-profit regional center in the form of hub with extended pipelines to each member states of Japan+3-the ASEAN-India regional group.

Covid-19 will persist beyond 2021. Even when this pandemic is contained, everyone must remain resilience in facing new challenges that are of life-threatening in the future. We certainly feel rewarded with new hope if this paper generates new interests in academic and public discourse of maximizing efforts for the promotion of SDGs on one hand, and on the other hand, minimizing uncertainty of the mercilessness of any invisible enemy in post Covid-19.

The journey to the realization of the proposed AI-DCPC or similar kind of institution is likely to be a long and winding one. However, we are confident that with the committed dedication from individuals, institutions, and the business communities will surely lay down foundation and specific milestones towards the goal. The transformation from unknowns to known knowns without question will make our livelihoods far more healthy, safer, and rewarding in the post Covid-19 era.

Abstract

This paper examines relationship between globalization and Covid-19. It then demonstrates the role of several SDGs in strengthening a healthy living post Covid-19. From these two analyses, this paper provides practical suggestions on how—Japan and her neighbors, the ASEAN, and India—can cooperate constructively to further foster achievement of SDGs as the foundation for a healthy living post covid-19. This study contends that SDGs are essential catalysts in building a resilient post pandemic society where healthy living is the new normal of life on the planet earth. In this connection, this paper especially focuses on Goal 3—"Ensure healthy lives and promote well-being for all at all ages". This paper underlines the importance of utilizing traditional local produce such as *Panax natoginseng* can be integrated into modern product such as health supplement to benefit and achieve a long-lasting healthy lifestyle—SDG Goal 3—for every individual regardless of background on our planet earth. Furthermore, this study gives special emphasis on SDG Goal 3 along with the implication of the ASEAN-India disease control and prevention in post Covid-19 is undoubtedly one of the main drivers for a durable, safer, and healthier livelihood for everyone.

Inter-disciplinary areas: Economic cooperation, sustainable development, traditional herb medicines, individual and public health.

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Annex 1

Table A1 Tourists, infected cases and deaths (person)

		Tourist	Infected	Death
United States	USA	79,745,920	5,529,789	172,606
Brazil	BRA	6,621,000	3,317,832	107,297
India	IND	17,423,000	2,589,208	50,084
Egypt, Arab Rep.	EGY	11,196,000	986,336	4,003
Russian Federation	RUS	24,551,000	917,884	15,617
China	CHN	62,900,000	842,827	4,634
South Africa	ZAF	10,472,000	583,653	11,617
Mexico	MEX	41,313,000	517,714	56,543
Spain	ESP	82,773,000	358,843	28,617
Iran, Islamic Rep.	IRN	7,295,000	341,070	19,492
United Kingdom	GBR	36,316,000	317,379	41,361
Saudi Arabia	SAU	15,334,000	297,315	3,369
Argentina	ARG	6,942,000	289,100	5,637
Italy	ITA	61,567,200	253,436	35,392
Turkey	TUR	45,768,000	248,117	5,955
Germany	DEU	38,881,000	224,478	9,290
France	FRA	89,322,000	215,521	30,409
Philippines	PHL	7,168,000	157,918	2,600
Indonesia	IDN	15,810,000	137,468	6,071
Canada	CAN	21,134,000	121,889	9,024
Kazakhstan	KAZ	8,789,000	102,287	1,269
Ukraine	UKR	14,104,000	89,719	2,044
Dominican Republic	DOM	6,569,000	85,545	1,438
Sweden	SWE	7,440,000	84,294	5,783
Belgium	BEL	9,119,000	77,869	9,935
Kuwait	KWT	8,508,000	75,697	498
Romania	ROU	11,720,000	69,374	2,954
Belarus	BLR	11,501,600	69,308	603
United Arab Emirates	ARE	21,286,000	64,102	361
Netherlands	NLD	18,780,000	62,495	6,169
Poland	POL	19,622,000	56,090	1,869
Singapore	SGP	14,673,000	55,661	27
Portugal	PRT	16,186,000	53,981	1,775
Japan	JPN	31,192,000	53,577	1,085
Bahrain	BHR	12,045,000	46,430	170
Morocco	MAR	12,289,000	41,017	632
Switzerland	CHE	10,362,000	37,924	1,991
Australia	AUS	9,246,000	28,723	396
Ireland	IRL	10,926,000	27,191	1,774
Austria	AUT	30,816,000	23,179	728
Denmark	DNK	12,749,000	15,483	621
Korea, Rep.	KOR	15,347,000	15,318	305
Bulgaria	BGR	9,273,000	14,333	495
Malaysia	MYS	25,832,000	9,175	125
Greece	GRC	30,123,000	6,858	226
Croatia	HRV	16,645,000	6,420	165
Thailand	THA	38,178,000	3,376	58
Vietnam	VNM	15,498,000	951	23
Myanmar	MMR	3,551,000	374	6
Cambodia	KHM	6,201,000	273	0
Brunei	BRN	278,000	142	3

Source: <https://data.europa.eu/euodp/en/data/dataset/covid-19-coronavirus-data> (accessed 14 August 2020).
<https://www.worldometers.info/coronavirus/> (accessed 14 August 2020).

Table A2 The Intra-ASEAN-India Trade in 2019 (billion USD)

	India	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	Total exports
India		0.057	0.204	4.515	0.029	6.269	0.507	1.636	10.739	4.332	5.513	33.799
Brunei	0.581		0.000	0.039	0.000	0.612	0.000	0.119	0.967	0.552	0.199	3.068
Cambodia	0.047	0.020		0.043	0.000	0.165	0.002	0.085	2.099	2.048	0.902	5.411
Indonesia	15.564	0.131	0.619		0.031	8.942	0.873	6.758	12.929	6.213	5.150	57.210
Lao PDR	0.003	0.000	0.017	0.002		0.015	0.002	0.000	0.015	2.407	1.055	3.515
Malaysia	10.408	0.605	0.602	7.737	0.023		0.668	4.387	33.036	13.480	8.383	79.328
Myanmar	0.957	0.001	0.017	0.183	0.003	0.263		0.124	0.327	3.229	0.228	5.331
Philippines	0.557	0.009	0.026	0.821	0.002	2.179	0.048		3.832	2.972	1.270	11.715
Singapore	14.894	0.640	2.270	17.305	0.088	21.606	3.387	6.935		15.354	12.961	95.440
Thailand	7.034	0.118	6.949	9.463	2.916	10.677	2.171	7.249	7.657		11.608	65.843
Vietnam	7.446	0.115	4.311	3.842	0.451	4.726	0.625	3.860	3.647	5.010		34.034
Total imports	57.490	1.694	15.015	43.950	3.544	55.453	8.283	31.152	75.246	55.597	47.268	

Source: <https://comtrade.un.org/data/> (accessed 13 August 2020).

Annex 2

Sustainable Development Goals

(Resolution adopted by the General Assembly on 25 September 2015,

<https://sustainabledevelopment.un.org/post2015/summit>, accessed 10 November 2020)

-
- Goal 1 End poverty in all its forms everywhere.
 - Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
 - Goal 3 Ensure healthy lives and promote well-being for all at all ages.
 - Goal 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
 - Goal 5 Achieve gender equality and empower all women and girls.
 - Goal 6 Ensure availability and sustainable management of water and sanitation for all.
 - Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all.
 - Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
 - Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
 - Goal 10 Reduce inequality within and among countries.
 - Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable.
 - Goal 12 Ensure sustainable consumption and production patterns.
 - Goal 13 Take urgent action to combat climate change and its impacts*.
 - Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
 - Goal 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
 - Goal 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
 - Goal 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development.
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* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

Annex 3

Clinical studies of *Panax notoginseng* (PN) in China

	Disease	Control	Number of cases	Cure	Significant effect	Effectiveness	Invalid	Effective rate%
1	Hemorrhage of upper digestive tract	① injection (1g of PN/2 ml), intravenous ② powder, 3 times/day, 1.5g/time, oral	110 60	102 58			8 2	92.7 96.7
2	Hemoptysis	powder, 2-3 times/day, 0.6-0.9g/time, oral	10	8		2		100.0
3	Hypertension	① 10% PN extract, 1 time/day, ion osmosis therapy ② injection (2ml PN extract/100mg), intravenous	70 22	68 22			2	97.1 100.0
4	Traumatic vitreous hemorrhage	10% PN extract, 1 time/day, ion osmosis therapy	19	19				100.0
5	Obstruction of vena centralis retinae	Injection (1ml saponin/50mg), intravenous	64		14	38	12	81.3
6	Gravitocerebral injury	powder 3g, 2-3 times/day, oral or nasal injection	40		16	14	10	75.0
7	Postoperative abdominalgia	powder 1g, 3 times/day, oral	47	40			7	85.1
8	Disorders of temporomandibular joint	PN tincture, 1/day, 20 minutes, cupping therapy	312	85	105	82	40	87.2
9	Coronary heart disease	① PN saponin formulation 0.6g-1.2g, 3 times/day, oral ② 3 capsules (PN 1g), 3 times/day, oral	263 35	186	29 27	6 7	42 1	84.0 97.1
10	Cerebral thrombosis	Injection 2ml (PN saponin 70mg), intravenous	73	15	35	17	6	91.8
11	Hypertension	① raw PN powder 0.6g, 3 times/day, oral ② raw PN powder, 0.9g/day, oral	10 73		10 48	15	10	100.0 86.3
12	Nutritional anemia	① injection 2ml (PN saponin 80mg), intramuscular injection ② 5% PN milk powder 20-30g, oral pediatric	25 218		20 218		5	80.0 100.0
13	Hyper-glutamic pyruvic transaminase disease	raw PN powder 1g, 3 times/day, oral	45		34	10	1	97.8
14	Hepatitis	① injection 2ml (PN 1g), intramuscular or intravenous ② raw PN powder 1.5-2g, 3 times/day, oral	65 53		47 6	5	13 4	80.0 92.5
15	Peritoneal dialysis	injection (PN extract 1ml/50mg), after dialysis	8		8			100.0
16	Wart	① PN powder 1.5g, 2 times/day, oral ② PN powder 0.5g-1g, 3 times/day, oral	30 13	20 12		6	4 1	86.7 92.3
17	Rhagades	PN ointment, 3-4 times/day, for external use	68	45		23		100.0
18	Sequela of cerebral hemorrhage	PN powder 2 g+ heech 3g, 3 times/day, oral or PN powder 3-5g, boil chicken 1 time/day	42	15	21	4	2	95.2
19	Lichen planus	Film agent, 3-5 times/day, paste on the affected area	50	30	10	6	4	92.0

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