

Risk Assessment for International Dissemination of COVID-19 to the ASEAN Region

ASEAN Biodiaspora Virtual Center (ABVC)

as of April 6, 2020 (2:00 PM GMT+8)



COVID-19: Highlights and Situation Overview

- As worldwide cases increased more than 1 million and deaths over 50000, Dr. Tedros, WHO Director-General, stressed that the best way for countries to end restrictions and ease their economic effects was to attack the virus with an aggressive and comprehensive package of measures.
- WHO has released new technical guidance recommending universal access to public hand hygiene stations and making their use obligatory on entering and leaving any public or private commercial building and any public transport facility. It also recommends that healthcare facilities improve access to and practice of hand hygiene. F
- 50,000 PCR (polymerase chain reaction) COVID-19 test kits from South Korea are expected to arrive at Soekarno-Hatta International Airport according to Indonesian Embassy in Seoul. The embassy announced on April 5 that the PCR diagnostic kits had been donated by four companies under South Korea's LG group, namely LG Electronics, LG Chem, LG Innotek and LG International Indonesia. The kits were sent from Seoul on Garuda Indonesia flight GA879 directly to Soekarno-Hatta International Airport in Tangerang, Greater Jakarta.
- The medical expert team sent by the Chinese government arrived in Manila, Philippines on April 5 to assist and advise the Philippines in its ongoing efforts to curb the spread of COVID-19. Besides dispatching the medical expert team, China also donated to the Philippines a new batch of medical supplies, including surgical masks, medical N95 masks, medical protective suits, medical face shields, and non-invasive ventilators.
- **Travel Advisories (new updates)**
 - Indonesia: Passengers are not allowed to transit or enter Indonesia (except nationals of Indonesia, passengers with a Temporary Stay Permit (ITAS) or Permanent Stay Permit (ITAP), airline crew, passengers with a Diplomatic Visa or Service Visa, passengers with a Diplomatic Stay Permit or Service Stay Permit, medical Aid Workers or Food Sustenance Workers for Humanitarian Purposes, and foreigners/Expatriates working on strategic national projects). Passengers who are eligible to enter Indonesia (except nationals of Indonesia) must comply with the following requirements:
 - have a valid health certificate in English issued by Health Authority from respective country. It must be valid within 7 days and state the passenger is free from respiratory disease, and
 - have no travel history in the last 14 days from China (People's Rep.), France, Germany, Iran, Italy, Korea (Rep.), Spain, Switzerland, United Kingdom and Vatican City (Holy See), and
 - agree for self-quarantine for 14 days and fill in statement of compliance on arrival.
 - Laos: Lao government has completely closed all of its international border gates and not allowed any individuals to go through these border gates, except for trucks carrying goods and emergency cases from April 3-19.
 - Malaysia: Effective April 3, transfer from an international flight to a domestic flight were not allowed. Malaysian authorities also ordered the reopening of the Padang Besar checkpoint in Songkhla effective April 6

to allow the import of concentrated latex from Thailand for the country's production of rubber gloves.

- Singapore: The following is effective April 5, 2020:
 - All returning residents, with travel history to Brunei Darussalam, Cambodia, France, India, Indonesia, Lao People's Dem. Rep., Malaysia, Myanmar, Philippines, Switzerland, Thailand, USA, United Kingdom or Viet Nam in the last 14 days, are required to serve out their mandatory 14-day Stay-Home Notice (SHN) at dedicated hotels.
 - Flight and cabin crew of foreign airlines, who are Singapore Citizens, Permanent Residents or long-term pass holders entering Singapore, will be issued with a Stay-Home Notice (SHN). Such crew with travel history to Brunei Darussalam, Cambodia, France, India, Indonesia, Lao People's Dem. Rep., Malaysia, Myanmar, Philippines, Switzerland, Thailand, USA, United Kingdom or Viet Nam within the last 14 days must serve the SHN at Crowne Plaza Changi Airport. Those who do not have travel history to the listed countries within the last 14 days may serve the SHN at their residence in Singapore. The SHN must be served until their next departure flight out of Singapore or for 14 days, whichever is earlier.
 - Flight and cabin crew of foreign airlines, who are not Singapore Citizens, Permanent Residents or long-term pass holders, will not be allowed to enter Singapore, or transit through Singapore. This does not apply to flights that require a layover due to flight time limitations or an aircraft-on-ground (AOG) situation in Singapore. In this case, airlines may layover their flight and cabin crew at Crowne Plaza Changi Airport. They will be issued with an SHN which shall be served until their next departure flight out of Singapore.
- Vietnam: National flag carrier Vietnam Airlines announced on April 5 that it will adjust the frequency of its flights from Hanoi/Ho Chi Minh City to Da Nang after the central city requires a 14-day quarantine period for passengers from the two major cities amid the COVID-19 pandemic. Accordingly, the carrier will conduct three flights per week on Mondays, Wednesdays and Fridays on each route from April 7-15 and has suspended international flights until April 30.

Cases and Deaths as of 6 April 2020

- As of April 06 (2PM, GMT+8), worldwide, there were **1,232,355** confirmed cases, including **68,605** deaths.
- In **China**, there were **82,979** confirmed cases with **3,338** deaths, including deaths in Hong Kong (4) and Taiwan (5). Confirmed cases in China include confirmed cases in Hong Kong (890), Macau (44), and Taiwan (363).
- **1,149,376 confirmed cases** of COVID-19 have been reported in **207 countries/states** (other than China, Hong Kong, Taiwan and Macau):

REGION	COUNTRY	FIRST CONFIRMED CASE(S)	LATEST CONFIRMED CASE(S)	CONFIRMED CASES/ (Deaths)	CASE FATALITY RATIO*
ASIA PACIFIC	Thailand	13 Jan 2020	05 Apr 2020	2169 (23)	1.06
	Vietnam	23 Jan 2020	05 Apr 2020	241	
	Singapore	23 Jan 2020	05 Apr 2020	1,309 (6)	0.46
	Malaysia	25 Jan 2020	05 Apr 2020	3,662 (61)	1.67
	Cambodia	27 Jan 2020	03 Apr 2020	114	
	Philippines	30 Jan 2020	05 Apr 2020	3,264 (152)	4.65
	Indonesia	02 Mar 2020	05 Apr 2020	2,273 (198)	8.71
	Brunei	10 Mar 2020	04 Apr 2020	135 (1)	0.74
	Myanmar	23 Mar 2020	05 Apr 2020	21 (1)	4.76
	Lao PDR	24 Mar 2020	05 Apr 2020	11	
	Japan	16 Jan 2020	05 Apr 2020 3,851 (88)	3,155 (88) 696 from quarantined ship	2.28
	South Korea	20 Jan 2020	05 Apr 2020	10,237 (183)	1.79
	Nepal	24 Jan 2020	05 Apr 2020	9	
	Australia	25 Jan 2020	05 Apr 2020	5,867 (34)	0.58
	Sri Lanka	27 Jan 2020	05 Apr 2020	170 (5)	2.94
	India	30 Jan 2020	05 Apr 2020	3,588 (99)	2.75
	Afghanistan	24 Feb 2020	05 Apr 2020	337 (7)	2.07
	Pakistan	26 Feb 2020	05 Apr 2020	2,899 (45)	1.55
	New Zealand	28 Feb 2020	05 Apr 2020	1,039 (1)	0.09
	Bhutan	05 Mar 2020	02 Apr 2020	5	
	Maldives	07 Mar 2020	02 Apr 2020	19	
	Bangladesh	08 Mar 2020	05 Apr 2020	88 (9)	10.2
	Mongolia	10 Mar 2020	01 Apr 2020	14	
	Turkey	10 Mar 2020	05 Apr 2020	23,934 (501)	2.09
	French Polynesia	12 Mar 2020	05 Apr 2020	40	
	Guam	15 Mar 2020	05 Apr 2020	93 (4)	4.30
	New Caledonia	17 Mar 2020	02 Apr 2020	18	
	Fiji	18 Mar 2020	04 Apr 2020	12	
	Papua New Guinea	21 Mar 2020	21 Mar 2020	1	
	Timor Leste	21 Mar 2020	21 Mar 2020	1	
Northern Mariana Islands	28 Mar 2020	03 Apr 2020	8 (1)	12.5	
AMERICAS	USA	21 Jan 2020	05 Apr 2020	332,283 (9,507)	2.86
	Canada	25 Jan 2020	05 Apr 2020	15,443 (297)	1.92
	Brazil	26 Feb 2020	05 Apr 2020	10,360 (445)	4.30
	Mexico	28 Feb 2020	05 Apr 2020	1,890 (79)	4.18
	Saint Martin	01 Mar 2020	05 Apr 2020	29	

Ecuador	01 Mar 2020	05 Apr 2020	3,465 (172)	4.96
Dominican Republic	01 Mar 2020	05 Apr 2020	1,578 (77)	4.88
Chile	03 Mar 2020	02 Apr 2020	4,161 (27)	0.65
Argentina	03 Mar 2020	02 Apr 2020	1,451 (53)	3.65
Peru	05 Mar 2020	05 Apr 2020	1,746 (73)	4.18
Costa Rica	06 Mar 2020	05 Apr 2020	435 (2)	0.46
Colombia	06 Mar 2020	05 Apr 2020	1,406 (32)	2.28
French Guiana	06 Mar 2020	05 Apr 2020	61**	
Martinique	06 Mar 2020	05 Apr 2020	145 (3)	
Paraguay	07 Mar 2020	05 Apr 2020	104 (3)	2.88
Panama	10 Mar 2020	05 Apr 2020	1,317 (32)	2.42
Bolivia	10 Mar 2020	05 Apr 2020	157 (10)	6.37
Honduras	11 Mar 2020	05 Apr 2020	268 (22)	8.21
Cuba	11 Mar 2020	04 Apr 2020	269 (6)	2.23
Guyana	11 Mar 2020	05 Apr 2020	24 (4)	
Jamaica	12 Mar 2020	05 Apr 2020	55 (3)	2.07
St Vincent and the Grenadines	12 Mar 2020	04 Apr 2020	7	
Saint Lucia	13 Mar 2020	01 Apr 2020	13	
Trinidad and Tobago	13 Mar 2020	05 Apr 2020	103 (6)	7.89
Venezuela	13 Mar 2020	05 Apr 2020	155 (7)	4.51
Guatemala	13 Mar 2020	05 Apr 2020	61 (2)	3.28
Uruguay	13 Mar 2020	05 Apr 2020	400 (5)	1.25
Curacao	13 Mar 2020	30 Mar 2020	11 (1)	9.09
Puerto Rico	13 Mar 2020	05 Apr 2020	452 (18)	3.98
Suriname	13 Mar 2020	01 Apr 2020	10	
Antigua and Barbuda	13 Mar 2020	04 Apr 2020	15	
Guadeloupe	13 Mar 2020	05 Apr 2020	134 (7)	5.22
Cayman Islands	13 Mar 2020	05 Apr 2020	35 (1)	2.85
Aruba	14 Mar 2020	05 Apr 2020	64	
Bahamas	15 Mar 2020	05 Apr 2020	28 (4)	14.3
US Virgin Islands	16 Mar 2020	30 Mar 2020	30	
Sint Maarten	17 Mar 2020	05 Apr 2020	25 (4)	16.0
Montserrat	17 Mar 2020	05 Apr 2020	6	
Barbados	17 Mar 2020	05 Apr 2020	52	
El Salvador	18 Mar 2020	05 Apr 2020	62 (3)	4.83
Nicaragua	18 Mar 2020	01 Apr 2020	5 (1)	20.0
Bermuda	18 Mar 2020	05 Apr 2020	37	
Haiti	19 Mar 2020	05 Apr 2020	21	
Dominica	22 Mar 2020	04 Apr 2020	14	
Grenada	22 Mar 2020	04 Apr 2020	12	
Belize	23 Mar 2020	04 Apr 2020	4	

	Turks and Caicos Islands	23 Mar 2020	02 Apr 2020	6		
	Saint Kitts and Nevis	24 Mar 2020	03 Apr 2020	9		
	British Virgin Islands	25 Mar 2020	31 Mar 2020	3		
	Anguilla	26 Mar 2020	03 Apr 2020	3		
	Caribbean Netherlands	01 Apr 2020	01 Apr 2020	2		
	Falkland Islands	03 Apr 2020	03 Apr 2020	1		
	Saint Pierre and Miquelon	05 Apr 2020	05 Apr 2020	1		
EUROPE	France	24 Jan 2020	05 Apr 2020	70,478 (8,078)	11.46	
	Germany	27 Jan 2020	05 Apr 2020	97,351 (1,479)	1.52	
	Finland	29 Jan 2020	05 Apr 2020	1,927 (28)	1.45	
	Italy	30 Jan 2020	05 Apr 2020	128,948 (15,887)	12.32	
	Russian Federation	31 Jan 2020	05 Apr 2020	5,389 (45)	0.84	
	Spain	31 Jan 2020	05 Apr 2020	130,975 (12,418)	9.48	
	Sweden	31 Jan 2020	02 Apr 2020	6,443 (373)	5.79	
	United Kingdom of Great Britain	31 Jan 2020	05 Apr 2020	47,806 (4,934)	10.32	
		Belgium	05 Feb 2020	05 Apr 2020	19,961 (1,447)	7.24
		Switzerland	25 Feb 2020	05 Apr 2020	21,100 (666)	3.16
		Austria	25 Feb 2020	05 Apr 2020	11,861 (204)	1.72
		Croatia	25 Feb 2020	05 Apr 2020	1,182 (16)	1.35
		Norway	26 Feb 2020	05 Apr 2020	5,686 (66)	1.16
		Romania	26 Feb 2020	02 Apr 2020	3,864 (148)	3.83
		Estonia	26 Feb 2020	05 Apr 2020	1,097 (15)	1.37
		Georgia	26 Feb 2020	05 Apr 2020	170 (2)	1.17
		North Macedonia	26 Feb 2020	05 Apr 2020	555 (18)	3.24
		Greece	26 Feb 2020	05 Apr 2020	1,673 (70)	4.18
		Denmark	27 Feb 2020	05 Apr 2020	4,639 (179)	3.85
		San Marino	27 Feb 2020	05 Apr 2020	266 (32)	12.03
		Lithuania	27 Feb 2020	05 Apr 2020	811 (12)	1.48
		Netherlands	27 Feb 2020	05 Apr 2020	17,851 (1,766)	9.89
		Azerbaijan	27 Feb 2020	05 Apr 2020	584 (5)	0.86
		Belarus	28 Feb 2020	05 Apr 2020	562 (8)	1.42
		Iceland	28 Feb 2020	01 Apr 2020	1,417 (4)	0.28
		Ireland	28 Feb 2020	05 Apr 2020	4,604 (137)	2.98
		Monaco	29 Feb 2020	05 Apr 2020	64 (1)	1.56
		Czech Republic	01 Mar 2020	05 Apr 2020	4,475 (62)	1.39
		Luxembourg	01 Mar 2020	05 Apr 2020	2,721 (31)	1.14
		Armenia	01 Mar 2020	02 Apr 2020	822 (7)	0.85
		Latvia	02 Mar 2020	05 Apr 2020	533	

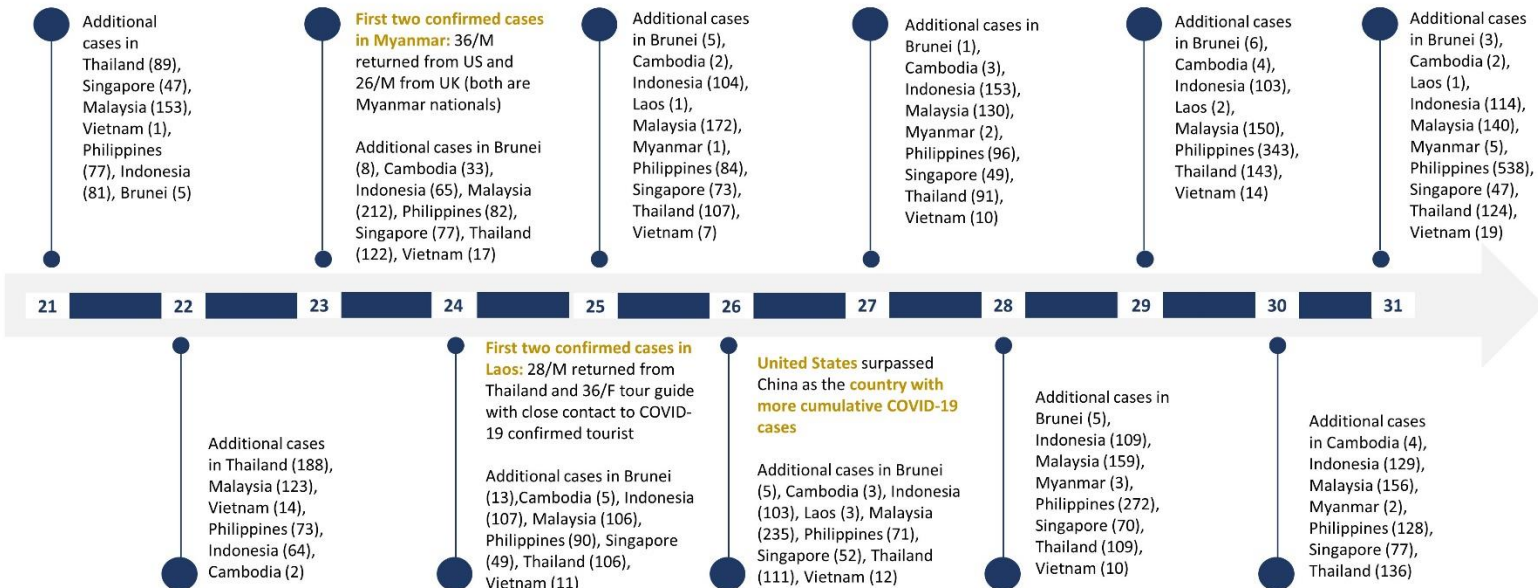
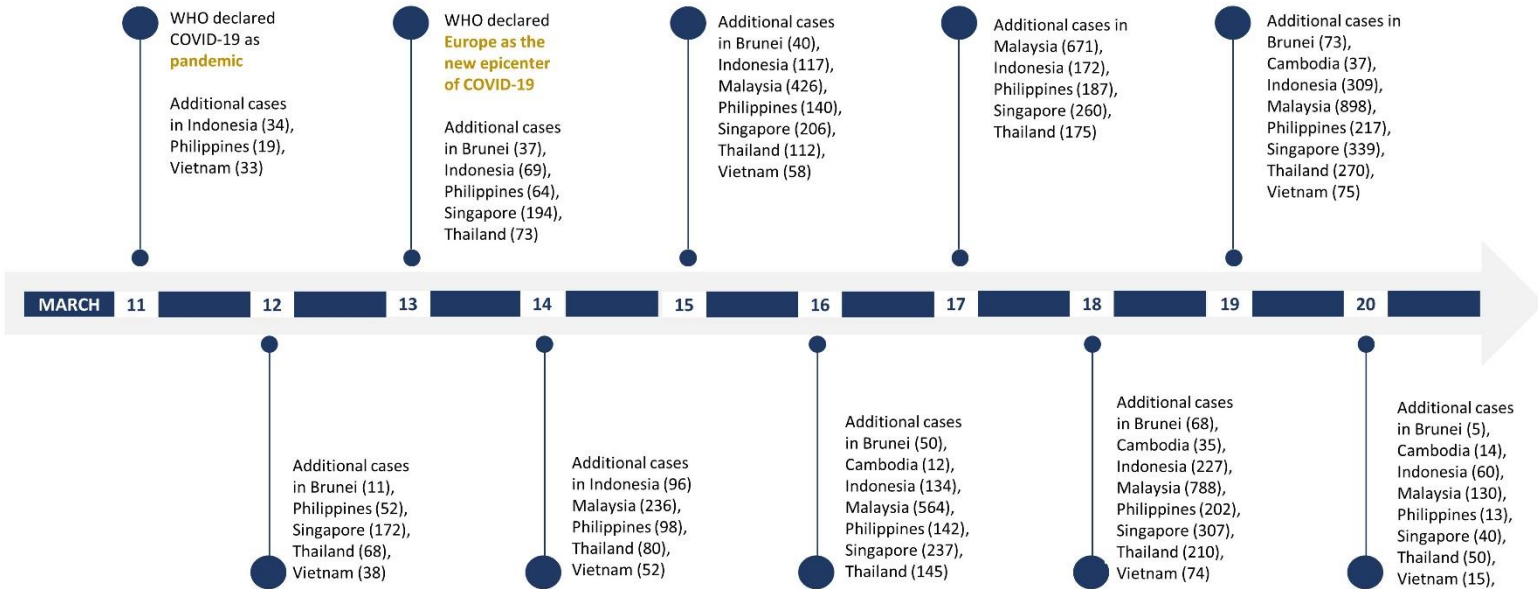
	Portugal	02 Mar 2020	05 Apr 2020	11,278 (295)	2.62
	Andorra	02 Mar 2020	05 Apr 2020	466 (17)	3.65
	Liechtenstein	03 Mar 2020	05 Apr 2020	77 (1)	1.29
	Ukraine	03 Mar 2020	05 Apr 2020	1,251 (32)	2,56
	Slovenia	04 Mar 2020	04 Apr 2020	977 (22)	2.25
	Hungary	04 Mar 2020	05 Apr 2020	733 (36)	4.64
	Poland	04 Mar 2020	05 Apr 2020	3,834 (84)	2.19
	Faroe Islands	04 Mar 2020	04 Apr 2020	181	
	Bosnia and Herzegovina	05 Mar 2020	05 Apr 2020	641 (21)	3.28
	Gibraltar	05 Mar 2020	05 Apr 2020	98	
	Slovakia	06 Mar 2020	05 Apr 2020	485 (1)	0.20
	Serbia	06 Mar 2020	05 Apr 2020	1,624 (44)	2.71
	Vatican City	06 Mar 2020	03 Apr 2020	7	
	Malta	07 Mar 2020	05 Apr 2020	227	
	Moldova	07 Mar 2020	05 Apr 2020	752 (14)	1.86
	Bulgaria	08 Mar 2020	05 Apr 2020	522 (18)	3.45
	Albania	09 Mar 2020	05 Apr 2020	361 (20)	5.54
	Cyprus	09 Mar 2020	05 Apr 2020	426 (11)	2.58
	Channel Islands	09 Mar 2020	05 Apr 2020	262 (5)	1.90
	Jersey	10 Mar 2020	05 Apr 2020	126 (3)	2.38
	Kazakhstan	13 Mar 2020	05 Apr 2020	569 (6)	1.05
	Uzbekistan	15 Mar 2020	05 Apr 2020	298 (2)	0.67
	Greenland	16 Mar 2020	05 Apr 2020	11	
	Montenegro	17 Mar 2020	05 Apr 2020	203 (2)	0.98
	Kyrgyzstan	18 Mar 2020	05 Apr 2020	147 (1)	0.68
	Isle of Man	19 Mar 2020	05 Apr 2020	127 (1)	0.78
MIDDLE EAST	UAE	29 Jan 2020	02 Apr 2020	1,505 (10)	0.66
	Iran	19 Feb 2020	05 Apr 2020	58,226 (3,603)	6.19
	Israel	21 Feb 2020	05 Apr 2020	8,018 (46)	0.57
	Lebanon	21 Feb 2020	05 Apr 2020	527 (18)	3.42
	Kuwait	24 Feb 2020	05 Apr 2020	556 (1)	0.18
	Oman	24 Feb 2020	05 Apr 2020	298 (2)	0.67
	Bahrain	24 Feb 2020	05 Apr 2020	698 (4)	0.57
	Iraq	24 Feb 2020	05 Apr 2020	878 (56)	6.38
	Qatar	29 Feb 2020	05 Apr 2020	1,325 (3)	0.23
	Saudi Arabia	02 Mar 2020	05 Apr 2020	2,385 (35)	1.43
	Jordan	02 Mar 2020	05 Apr 2020	323 (5)	1.54
	Palestine	05 Mar 2020	05 Apr 2020	226 (1)	0.44
	Syria	22 Mar 2020	05 Apr 2020	19 (2)	10.5
AFRICA	Egypt	14 Feb 2020	05 Apr 2020	1,070 (71)	6.64
	Algeria	25 Feb 2020	05 Apr 2020	1,251 (130)	10.39
	Nigeria	28 Feb 2020	05 Apr 2020	224 (5)	2.23
	Tunisia	02 Mar 2020	05 Apr 2020	553 (18)	3.25
	Morocco	02 Mar 2020	05 Apr 2020	961 (69)	7.18
	Senegal	02 Mar 2020	05 Apr 2020	222 (2)	0.90
	South Africa	05 Mar 2020	05 Apr 2020	1,585 (9)	0.57
	Cameroon	06 Mar 2020	05 Apr 2020	555 (9)	1.62

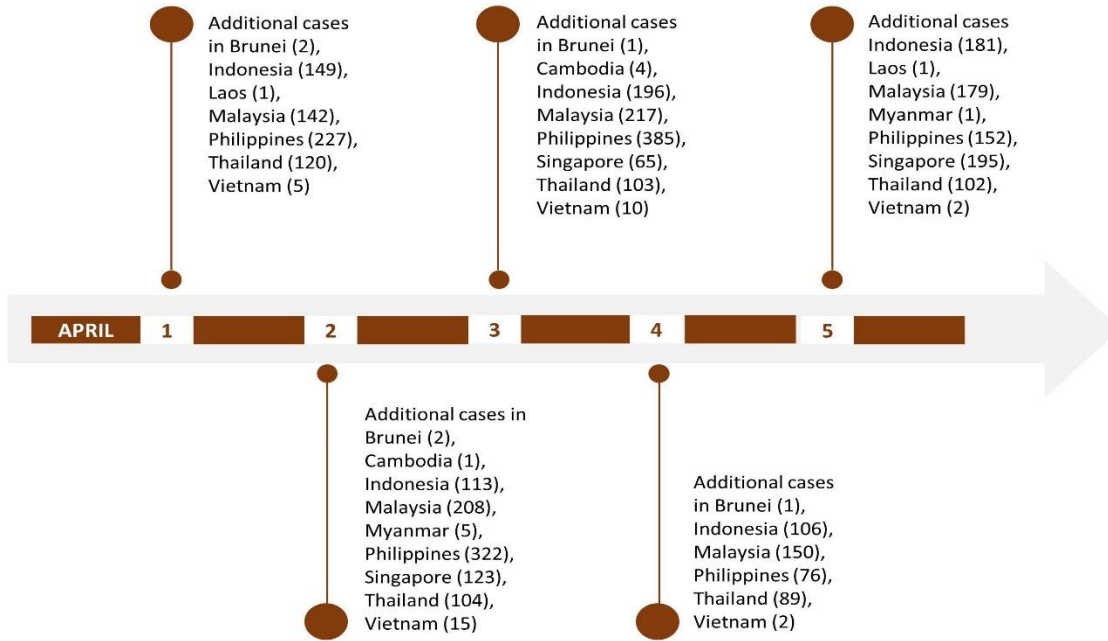
Togo	06 Mar 2020	03 Apr 2020	40 (3)	7.50
Burkina Faso	09 Mar 2020	05 Apr 2020	318 (16)	5.03
Democratic Republic of Congo	10 Mar 2020	29 Mar 2020	65 (6)	9.23
Ivory Coast	11 Mar 2020	05 Apr 2020	245 (1)	0.40
Reunion	11 Mar 2020	05 Apr 2020	334	
Ghana	13 Mar 2020	05 Apr 2020	214 (5)	2.33
Guinea	13 Mar 2020	05 Apr 2020	111	
Gabon	13 Mar 2020	03 Apr 2020	21 (1)	4.76
Sudan	13 Mar 2020	04 Apr 2020	10 (2)	20.0
Kenya	13 Mar 2020	05 Apr 2020	142 (4)	2.81
Ethiopia	13 Mar 2020	05 Apr 2020	43	
Central African Republic	14 Mar 2020	03 Apr 2020	8	
Seychelles	14 Mar 2020	31 Mar 2020	10	
Rwanda	14 Mar 2020	05 Apr 2020	102	
Namibia	14 Mar 2020	05 Apr 2020	16	
Swaziland	14 Mar 2020	28 Mar 2020	9	
Mauritania	14 Mar 2020	31 Mar 2020	6	
Mayotte	14 Mar 2020	05 Apr 2020	134 (2)	1.49
Equatorial Guinea	15 Mar 2020	04 Apr 2020	16	
Republic of Congo	15 Mar 2020	05 Apr 2020	45 (5)	11.1
Benin	16 Mar 2020	04 Apr 2020	16	
Liberia	16 Mar 2020	05 Apr 2020	13	
Tanzania	16 Mar 2020	02 Apr 2020	20	
Somalia	16 Mar 2020	04 Apr 2020	7	
Gambia	17 Mar 2020	25 Mar 2020	4 (1)	25.0
Zambia	17 Mar 2020	02 Apr 2020	39 (1)	2.56
Mauritius	18 Mar 2020	05 Apr 2020	227 (7)	3.08
Djibouti	18 Mar 2020	05 Apr 2020	59	
Niger	19 Mar 2020	04 Apr 2020	120 (5)	4.17
Chad	19 Mar 2020	04 Apr 2020	9	
Zimbabwe	20 Mar 2020	03 Apr 2020	9 (1)	11.1
Cape Verde	20 Mar 2020	04 Apr 2020	7 (1)	14.3
Madagascar	20 Mar 2020	05 Apr 2020	72	
Uganda	21 Mar 2020	04 Apr 2020	48	
Eritrea	21 Mar 2020	05 Apr 2020	29	
Angola	21 Mar 2020	02 Apr 2020	8 (2)	25.0
Mozambique	22 Mar 2020	01 Apr 2020	10	
Libya	24 Mar 2020	05 Apr 2020	18	
Guinea-Bissau	25 Mar 2020	05 Apr 2020	18	
Mali	25 Mar 2020	04 Apr 2020	41 (3)	7.31
Botswana	30 Mar 2020	01 Apr 2020	4 (1)	25.0
Sierra Leone	31 Mar 2020	02 Apr 2020	2	
Burundi	31 Mar 2020	03 Apr 2020	3	
Malawi	02 Apr 2020	04 Apr 2020	4	
South Sudan	05 Apr 2020	05 Apr 2020	1	
			1,149,376 (65,267)	

*The calculated CFR is based on reported deaths and reported case counts, and does not account for recovered cases over time or rate of testing in a particular region.

**Corrected from last report

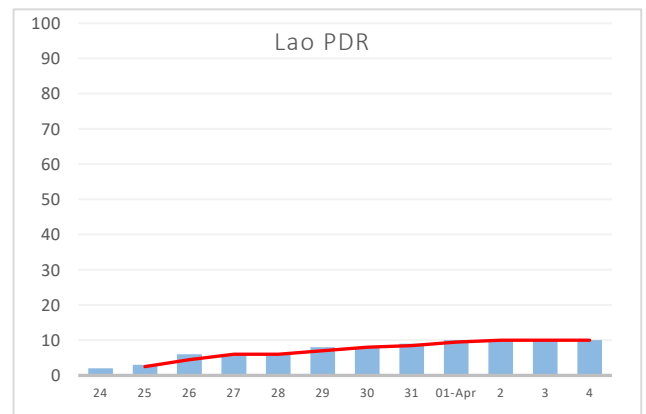
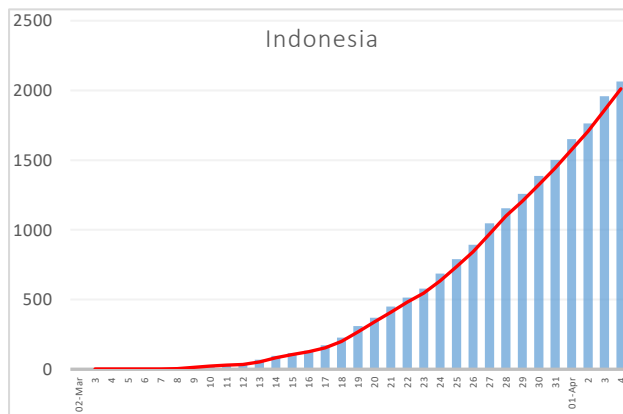
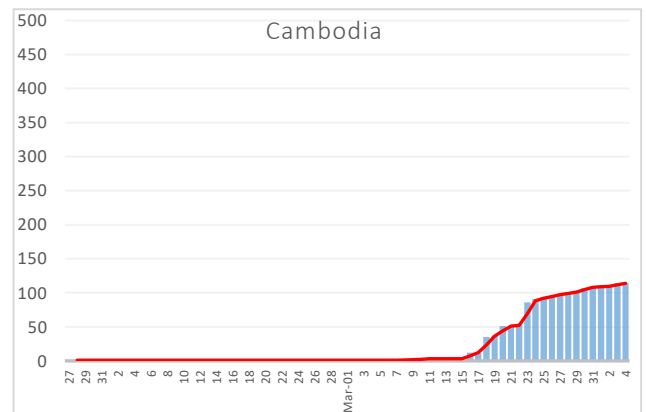
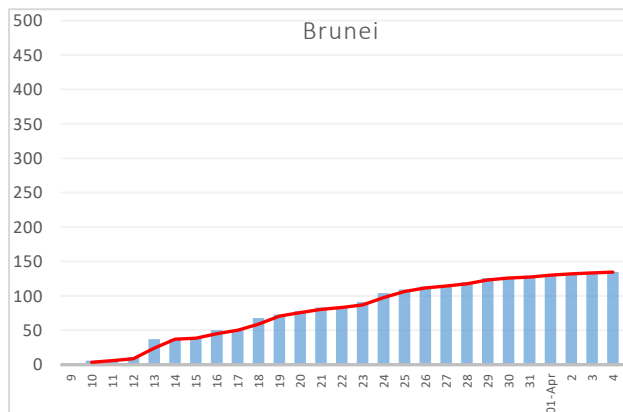
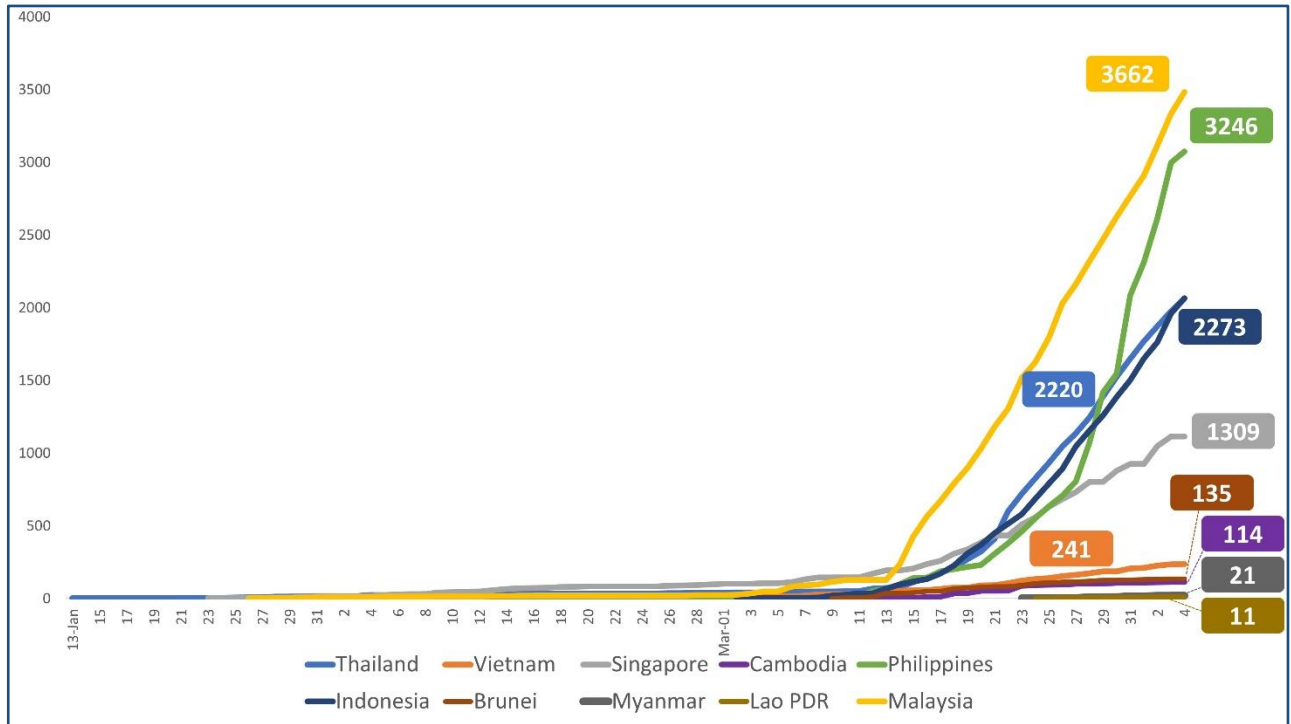
Timeline of COVID-19: ASEAN

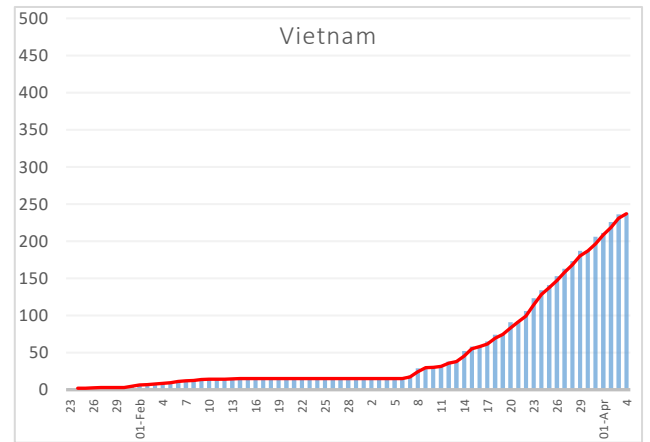
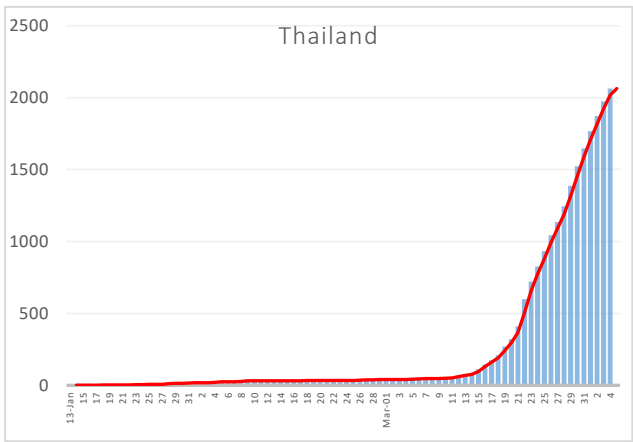
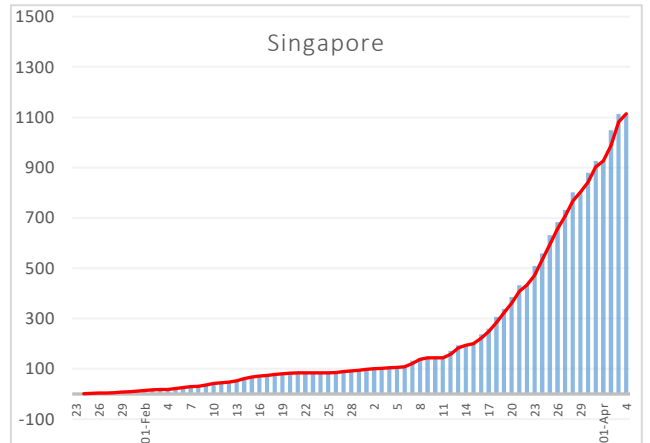
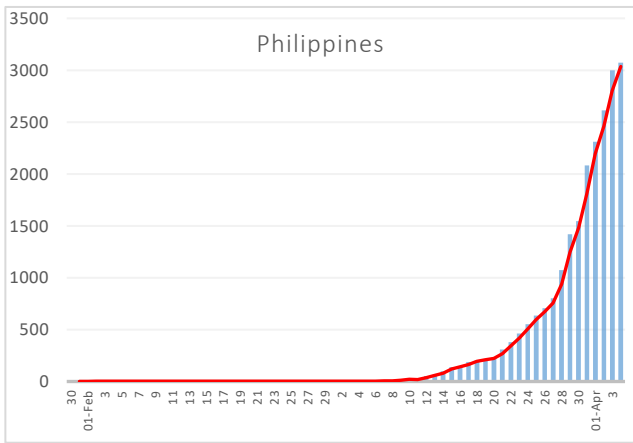
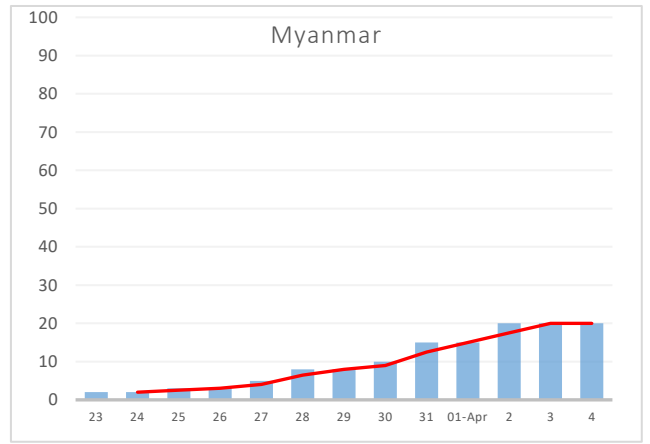
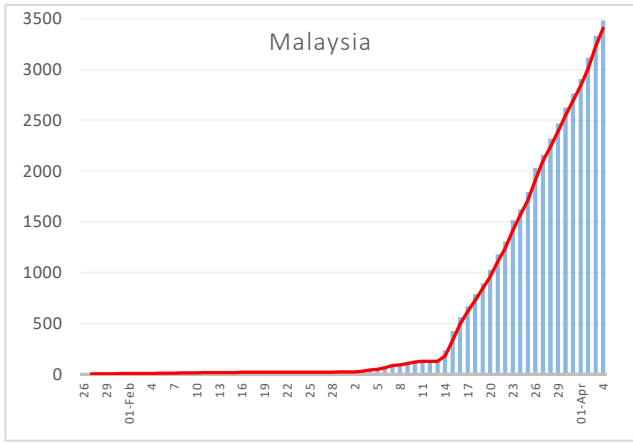




COVID-19 epi curve of ASEAN Member States

As of April 6, 2020





Risk of COVID-19 spread via Air Travel

Biodiaspora Air Travel Data from Highly Infected Countries to ASEAN Member States

Table 1. ASEAN Countries receiving direct passengers from **United States** in April 2020

Origin Country	Destination Country	Flights	Seats*
United States	Philippines	180	90,609
	Singapore	308	83,164
	Malaysia	18	6,660

*actual number of passengers may vary due to in-country's travel ban or restrictions

Table 2. ASEAN Countries receiving direct passengers from **Spain** in April 2020

Origin Country	Destination Country	Flights	Seats*
Spain	Singapore	22	5,456

*actual number of passengers may vary due to in-country's travel ban or restrictions

Table 3. ASEAN Countries receiving direct passengers from **Italy** in April 2020

Origin Country	Destination Country	Flights	Seats*
Italy	Singapore	44	10,912
	Thailand	43	13,803

*actual number of passengers may vary due to in-country's travel ban or restrictions

Table 4. ASEAN Countries receiving direct passengers from **Germany** in April 2020

Origin Country	Destination Country	Flights	Seats*
Germany	Singapore	184	62,013
	Thailand	163	56,883
	Viet Nam	43	13,072

*actual number of passengers may vary due to in-country's travel ban or restrictions

Table 5. ASEAN Countries receiving direct passengers from **France** in April 2020

Origin Country	Destination Country	Flights	Seats*
France	Singapore	60	23,760
	Thailand	56	19,266
	Viet Nam	56	17,238

*actual number of passengers may vary due to in-country's travel ban or restrictions

Transmission Category of COVID-19 Affected Countries

BlueDot has classified countries worldwide into categories based on the observed rate of COVID-19 transmission using data generated by BlueDot's global epidemic surveillance system, as of 10:00 PM PHT (GMT+8) on April 3. To contextualize each country's current situation, BlueDot calculated: (1) each country's rate of change for COVID-19 case reports, (2) case fatality ratios (CFR) for each country, and (3) each country's COVID-19 case burden, per 1,000 population. We also utilized the Infectious Disease Vulnerability Index as a measure of each country's public health capacity to detect, respond, and/or control a COVID-19 outbreak.

The following report includes the following figures and table:

Map 1: Map depicting countries by the corresponding COVID-19 transmission category, as defined below.

Map 2: Map depicting the total number of COVID-19 cases reported per 1,000 population at a national level since the beginning of the pandemic. This case count includes active cases, resolved cases, and fatalities.

Table: Summary of country categorizations, IDVI value, and COVID-19 cases per 1,000 population

- A** **Countries reporting <100 cases and a slowly increasing rate of COVID-19 transmission**
 - These countries have reported <100 cases of COVID-19, a CFR $\leq 4\%$, and have a favorable IDVI suggesting adequate capacity to detect, respond, and/or control an epidemic.
 - Interpretation: These countries may be in an early phase of the epidemic, with limited community-based transmission.
- B** **Countries reporting a steadily increasing OR stabilizing rate of COVID-19 transmission**
 - These countries have reported ≥ 100 cases of COVID-19 and have a steadily increasing OR stabilizing rate of COVID-19 transmission (i.e. the number of new cases reported each day is consistent, or increasing at a low rate).
 - Interpretation: These countries may be in an early stage of the epidemic with either steadily increasing community-based transmission, OR demonstrating early evidence of effective epidemic control measures, OR have incomplete testing/reporting.
- C** **Countries reporting a rapidly increasing rate of COVID-19 transmission**
 - These countries have reported ≥ 100 cases of COVID-19 and have a rapidly accelerating rate of COVID-19 transmission.
 - Interpretation: These countries may be in the most aggressive stages of the epidemic and are experiencing widespread community-based transmission and likely have sufficient testing capacity.
- D** **Countries reporting a negative rate of COVID-19 transmission**
 - These countries have reported ≥ 100 cases of COVID-19 and have a decelerating rate of COVID-19 transmission.
 - Interpretation: These countries may be in the mid- or later stages of the epidemic, with a negative rate of transmission (i.e. fewer new cases reported each day) due to robust and effective control measures.
- E** **Countries reporting <100 cases AND a high case fatality ratio OR limited public health capacity to detect and/or respond to COVID-19 based on IDVI**
 - These countries have reported <100 cases of COVID-19, AND: are reporting a CFR $> 4\%$ OR have an IDVI value (< 0.6).
 - Interpretation: These countries may be experiencing a larger outbreak than reported case counts indicate, and/or may have reduced capacity to detect and control spread of COVID-19.
- F** **Countries where insufficient information is available on COVID-19 transmission**
 - These countries have not reported imported or local cases of COVID-19 as of April 3, 10:00 PM PHT (GMT+8)

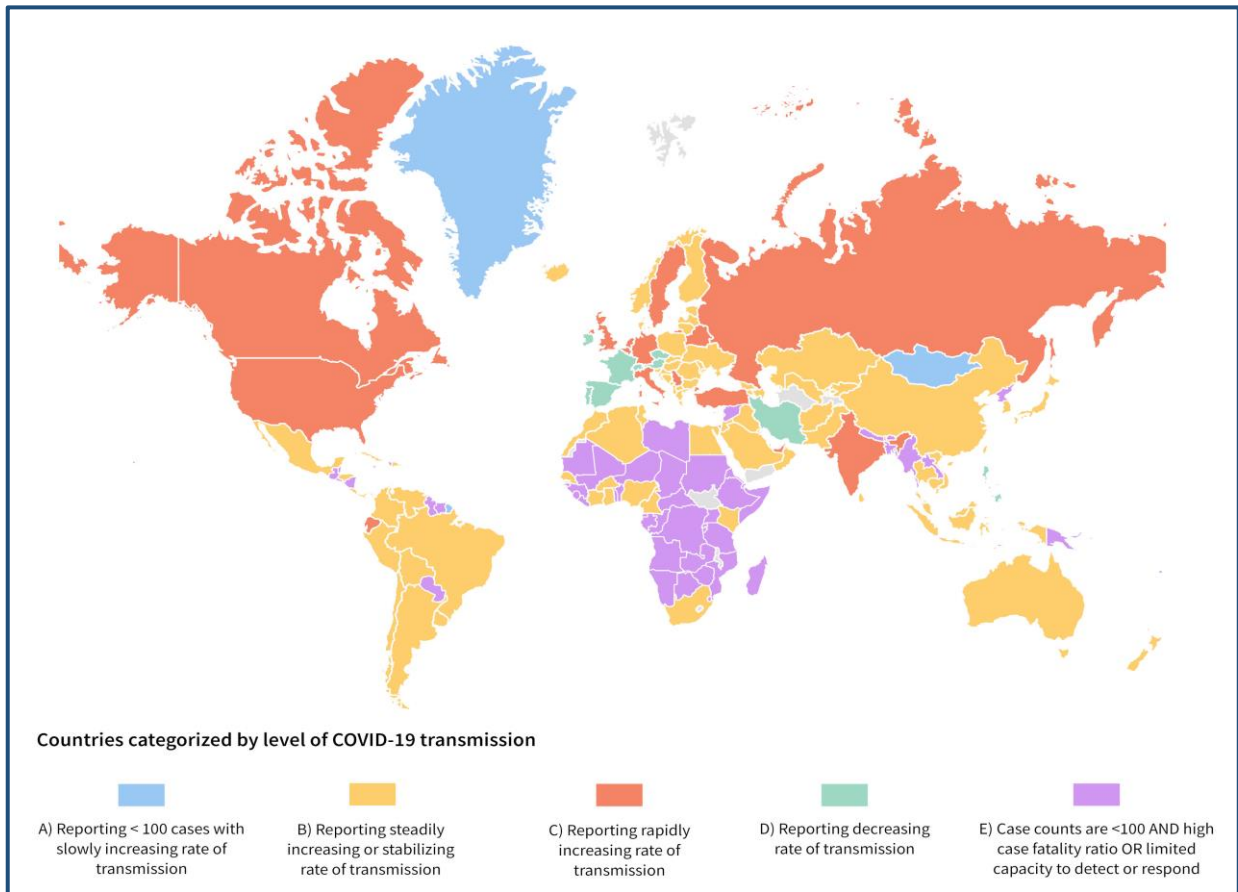


Figure 1. Map depicting countries by the corresponding COVID-19 transmission category

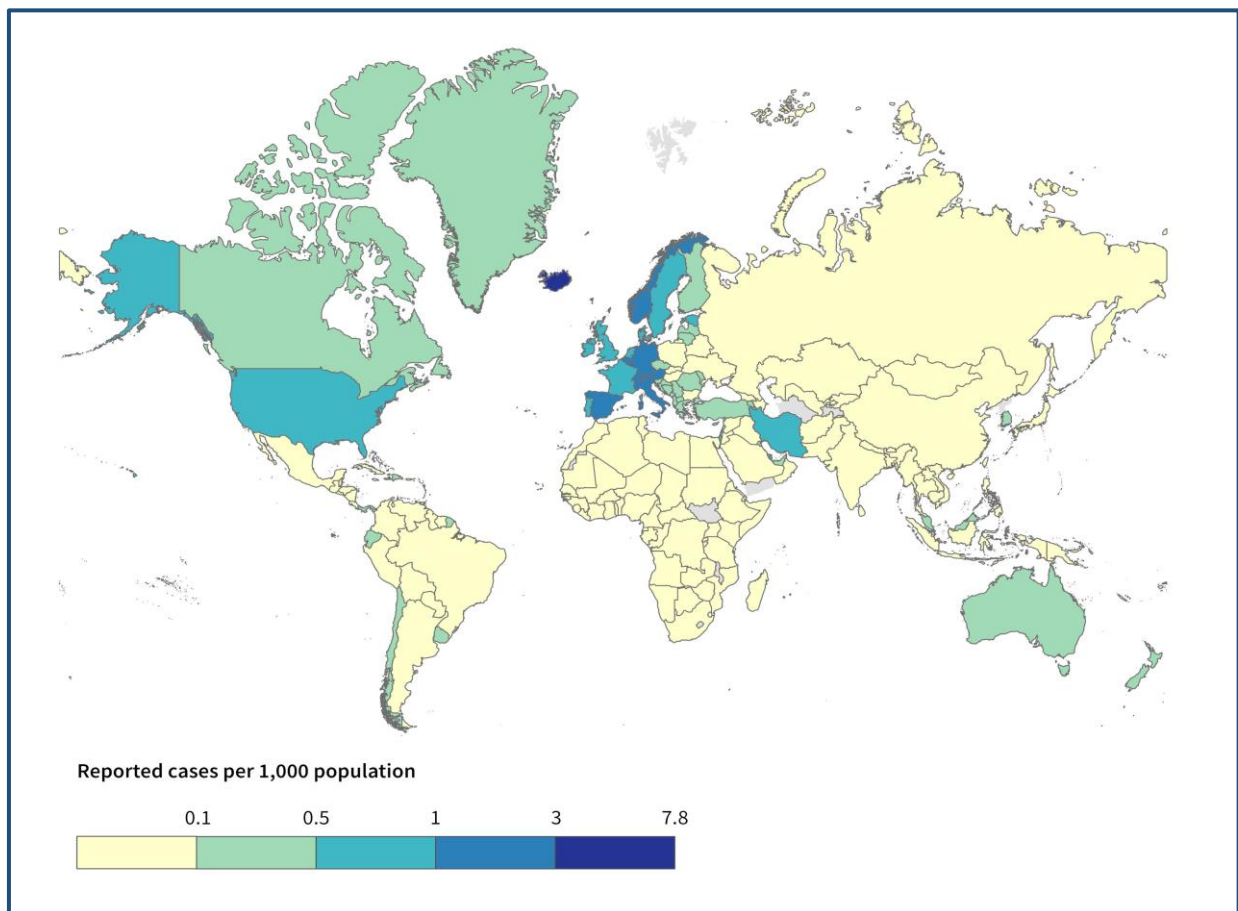


Figure 2. Map depicting the total number of COVID-19 cases reported per 1,000 population at a national level since the beginning of the pandemic. This include active cases, resolved cases, and fatalities

Table 1. Summary of ASEAN Member States' country categorization, IDVI value, and COVID-19 cases per 1,000 population

Country*	COVID-19 Category As of April 1, 2020	COVID-19 Category As of April 3, 2020	IDVI Score**	Confirmed COVID-19 cases per 1000 population
Brunei	B	B	0.763	0.34
Cambodia	B	B	0.355	0.01
Indonesia	B	D	0.568	0.66
Laos	E	E	0.355	0.002
Malaysia	B	B	0.761	0.11
Myanmar	E	E	0.448	0.0004
Philippines	C	D	0.545	0.03
Singapore	B	B	0.878	0.31
Thailand	B	B	0.711	0.03
Vietnam	B	B	0.626	0.003

*refer to additional file for country categorization globally

**the indexed scores for all countries are presented as normed values between 0 and 1.0.



Report generated by
ASEAN Biodiaspora Virtual Center (ABVC)
in collaboration with Bluedot Inc.
Email: support@biodiaspora.org

