



Diabetes around the world | 2021



Number of adults (20–79 years) with diabetes worldwide

World	
2045	784 million
2030	643 million
2021	537 million

↑ 46% increase

North America & Caribbean (NAC)	
2045	63 million
2030	57 million
2021	51 million

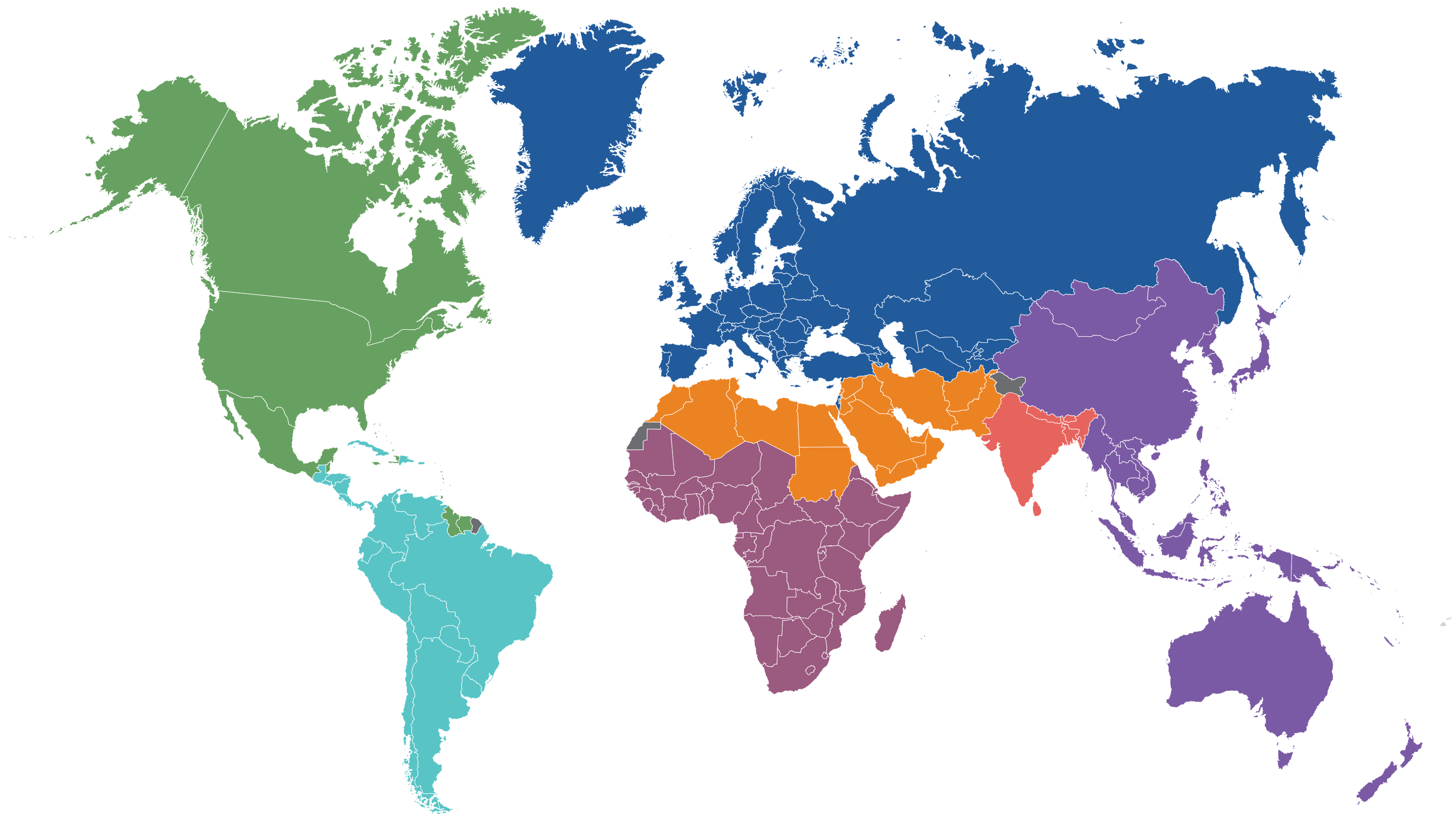
↑ 24% increase

Europe (EUR)	
2045	69 million
2030	67 million
2021	61 million

↑ 13% increase

Western Pacific (WP)	
2045	260 million
2030	238 million
2021	206 million

↑ 27% increase



South & Central America (SACA)	
2045	49 million
2030	40 million
2021	32 million

↑ 50% increase

Africa (AFR)	
2045	55 million
2030	33 million
2021	24 million

↑ 134% increase

Middle East & North Africa (MENA)	
2045	136 million
2030	95 million
2021	73 million

↑ 87% increase

South-East Asia (SEA)	
2045	152 million
2030	113 million
2021	90 million

↑ 68% increase

Highlights



537 million adults (20–79 years) are living with diabetes worldwide – 1 in 10.



The total number of people with diabetes is predicted to rise to **643 million** (1 in 9 adults) by 2030 and **784 million** (1 in 8 adults) by 2045.



4 in 5 people with diabetes (81%) live in low income and middle-income countries.



Diabetes caused **6.7 million** deaths in 2021 – 1 every 5 seconds.



An estimated **44%** of adults living with diabetes (**240 million** people) are undiagnosed. Almost **90%** of these people live in low income and middle-income countries.



Diabetes was responsible for an estimated USD **966 billion** in global health expenditure in 2021. This represents a **316%** increase over the last 15 years.



541 million adults worldwide, or **1 in 10**, have impaired glucose tolerance, placing them at high risk of developing type 2 diabetes.



68% of adults with diabetes live in the 10 countries with the highest number of people with diabetes.

Corporate sponsors

The IDF Diabetes Atlas 10th edition has been produced thanks to educational grants from Novo Nordisk, Pfizer-MSD Alliance and Sanofi.



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Country or territory	Estimated Adult Diabetes population (20-79 y), 1,000s	Adult Total population (20-79 y), 1,000s	Diabetes age-adjusted comparative prevalence (20-79 y), %	Cost per person with diabetes (20-79 y), USD	Diabetes-related deaths (20-79 y)	Proportion of undiagnosed diabetes(20-79 y), %	One in X adults(20-79 y) has diabetes
Afghanistan	1,606.7	18,579.7	10.9	143.1	31743	71.4	12
Albania ¹	241.1	2,103.0	9.1	676.1	4,248	39.6	9
Algeria	2,013.0	27,196.2	7.1	862.8	21,749	40.2	14
American Samoa ¹	7.8	33.5	20.3	–	–	51.5	4
Andorra ¹	8.0	57.8	9.7	3,063.9	–	33.5	7
Angola ¹	584.5	14,503.2	4.6	519.8	11,173	53.3	25
Antigua and Barbuda ¹	8.5	68.6	11.7	1,015.8	147	28.9	8
Argentina	1,806.8	29,757.1	5.4	1,420.4	26,944	31.2	16
Armenia ¹	133.6	2,087.5	5.6	1,174.3	2,392	39.6	16
Aruba	4.1	78.8	4.3	–	–	28.9	19
Australia	1,491.8	18,168.8	6.4	5,944.0	23,226	25.0	12
Austria	447.1	6,778.6	4.6	6,574.7	12,021	33.5	15
Azerbaijan ¹	397.1	7,058.0	5.6	482.4	7,577	39.6	18
Bahamas	25.6	274.7	8.8	2,496.6	470	28.9	11
Bahrain	119.8	1,328.4	11.3	1,324.9	536	34.2	11
Bangladesh	13,136.3	105,257.8	14.2	76.5	75,617	43.5	8
Barbados	38.8	208.3	14.0	1,106.4	1,008	28.9	5
Belarus ¹	483.0	6,981.8	5.6	1,023.5	11,242	39.6	14
Belgium	404.9	8,347.7	3.6	6,433.2	10,714	33.5	21
Belize	32.2	244.3	14.5	830.5	441	41.9	8
Benin	50.4	5,874.4	1.1	181.6	927	53.3	117
Bermuda	6.9	44.5	13.0	–	–	28.9	6
Bhutan ¹	44.8	509.0	10.4	194.7	379	43.5	11
Bolivia (Plurinational State of)	395.9	6,951.2	5.5	898.8	7,517	37.3	18
Bosnia and Herzegovina ¹	305.9	2,506.8	9.1	1,125.2	5,113	39.6	8
Botswana	69.1	1,361.6	5.2	2,155.3	2,044	53.3	20
Brazil	15,733.6	149,916.8	8.8	2,278.5	214,175	31.9	10
British Virgin Islands	1.9	20.1	8.7	–	–	28.9	11
Brunei Darussalam	35.0	307.9	11.1	901.3	532	45.4	9
Bulgaria	519.3	5,227.1	7.4	1,892.4	10,520	25.8	10
Burkina Faso ¹	164.4	9,587.0	2.1	192.3	2,813	57.6	58
Burundi ¹	223.1	5,434.6	6.5	102.5	3,925	57.6	24
Cabo Verde ¹	7.3	351.3	2.1	912.1	70	53.3	48
Cambodia	596.0	10,169.2	7.3	261.5	8,772	56.1	17
Cameroon	620.8	12,827.9	5.5	286.2	12,614	53.3	21
Canada	2,974.0	28,352.3	7.7	4,802.9	53,046	37.8	10
Cayman Islands ¹	6.1	43.9	13.0	–	–	28.9	7
Central African Republic ¹	96.9	2,176.2	5.8	267.7	3,655	57.6	22
Chad ¹	268.3	7,131.9	5.8	133.6	5,247	57.6	27
Channel Islands ¹	10.8	131.2	6.3	–	–	33.5	12
Chile	1,747.1	13,762.5	10.8	1,583.9	18,591	31.2	8
China	140,869.6	1,079,960.8	10.6	1,173.5	1,396,662	51.7	8
China, Hong Kong SAR	686.0	5,921.4	7.8	–	–	54.2	9
China, Macao SAR ¹	50.9	525.7	7.8	–	–	45.4	10
Colombia	3,443.6	34,882.8	8.3	1,772.8	35,562	36.0	10
Comoros	34.6	449.3	11.7	205.6	440	51.4	13
Congo ¹	151.6	2,729.4	5.5	251.4	3,104	53.3	18
Costa Rica	361.5	3,603.3	8.8	2,890.0	3,663	37.3	10
Côte d'Ivoire ¹	231.2	12,830.9	2.1	386.6	3,991	53.3	56
Croatia	212.7	3,058.7	4.8	1,197.5	6,218	37.3	14
Cuba	761.3	8,459.2	7.6	3,117.4	10,714	33.5	11
Curaçao ¹	20.3	117.7	11.7	–	–	28.9	6
Cyprus	87.5	900.4	8.6	2,570.8	1,101	36.6	10
Czechia	791.4	8,058.7	7.1	2,177.5	1,146	33.5	10
Democratic People's Republic of Korea ¹	1,847.1	18,453.4	8.6	–	27,653	55.8	10
Democratic Republic of the Congo ¹	1,908.9	40,044.2	5.8	93.9	34,151	57.6	21
Denmark	309.4	4,243.7	5.3	7,844.4	7,010	33.5	14
Djibouti ¹	53.7	618.6	7.4	288.2	883	53.3	12
Dominica ¹	6.3	47.6	11.7	1,334.3	–	35.0	8
Dominican Republic	865.3	6,832.4	10.5	1,490.1	12,777	37.3	8
Ecuador	526.7	11,175.2	4.4	2,280.5	3,970	20.0	21
Egypt	10,930.7	59,379.9	20.9	250.5	122,684	62.0	5
El Salvador ¹	291.5	4,095.7	6.3	1,061.8	3,691	37.3	14
Equatorial Guinea ¹	39.4	782.9	5.5	1,712.7	824	53.3	20
Eritrea ¹	94.2	1,718.3	6.5	110.6	2,129	57.6	18
Estonia	83.9	960.0	6.5	1,826.6	174	48.7	11
Eswatini ¹	21.8	600.9	4.6	1,136.2	846	53.3	28
Ethiopia	1,920.0	57,503.7	5.0	104.3	26,448	57.6	30
Faroe Islands	1.8	35.3	3.8	–	–	31.4	19
Fiji	99.2	560.2	17.7	524.6	1,587	51.5	6
Finland	392.9	4,061.1	6.1	5,514.6	9,338	18.8	10
France	3,942.9	46,024.0	5.3	5,760.1	87,434	27.9	12
French Polynesia	52.1	194.3	25.2	–	–	45.4	4
Gabon ¹	79.0	1,217.0	5.5	1,137.8	1,215	53.3	15
Gambia	18.1	1,126.4	1.9	132.7	325	57.6	62
Georgia	190.6	2,803.6	5.7	877.1	4,271	39.6	15
Germany	6,199.9	62,027.7	6.9	6,660.7	151,463	21.7	10
Ghana	329.2	16,732.9	2.6	279.4	6,255	53.3	51
Greece	736.1	7,658.6	6.4	1,747.1	22,350	33.5	10
Greenland	1.8	40.7	3.3	–	–	33.5	22
Grenada	10.1	76.2	12.6	1,058.0	264	35.0	8
Guam	23.3	112.6	19.1	–	–	45.4	5
Guatemala ¹	1,149.5	10,099.3	13.1	888.5	13,850	48.8	9
Guinea-Bissau ¹	16.8	956.8	2.1	270.9	411	57.6	57
Guinea ¹	103.7	6,146.5	2.1	184.6	2,176	57.6	59
Guyana ¹	54.0	489.0	11.7	693.0	1,672	35.0	9
Haiti	548.7	6,581.8	8.9	244.5	11,811	29.4	12
Holy See ¹	0.1	0.6	7.3	–	–	33.5	9
Honduras	268.2	5,887.6	5.1	749.1	3,796	50.0	22
Hungary	661.4	7,309.6	7.0	1,465.9	10,701	16.7	11
Iceland ¹	20.1	242.7	5.5	8,400.7	394	33.5	12
India	74,194.7	893,910.0	9.6	114.4	647,831	53.1	12
Indonesia	19,465.1	179,720.5	10.6	323.8	236,711	73.7	9
Iran (Islamic Republic of)	5,450.3	57,370.4	9.1	1,354.8	47,932	35.1	11
Iraq	2,011.4	21,391.1	10.7	850.4	21,752	47.1	11
Ireland	139.1	3,474.7	3.0	7,843.3	2,958	33.5	25
Isle of Man ¹	5.1	61.4	6.3	–	–	33.5	12
Israel	536.5	5,407.2	8.5	4,807.4	13,230	33.5	10
Italy	4,470.3	45,153.7	6.4	3,280.8	172,943	33.5	10
Jamaica	231.1	1,991.4	11.1	884.9	4,303	24.5	9
Japan	11,005.0	93,187.4	6.6	3,239.3	245,010	45.5	8
Jordan	866.5	5,854.1	15.4	980.7	5,705	20.0	7
Kazakhstan ¹	807.7	11,949.4	6.6	764.2	11,806	39.6	15
Kenya	821.5	27,783.4	4.0	448.6	15,285	43.7	34
Kiribati	14.1	66.8	22.1	493.8	335	55.0	5
Kuwait	803.4	3,152.8	24.9	1,823.6	2,153	37.3	4
Kyrgyzstan ¹	256.4	3,908.1	6.6	231.0	2,966	39.6	15
Lao People's Democratic Republic	214.8	4,291.5	5.2	202.9	3,136	41.9	20
Latvia	115.8	1,353.3	6.9	1,335.0	2,229	33.5	12
Lebanon	396.1	4,449.4	8.0	1,930.8	5,492	40.2	11
Lesotho ¹	48.4	1,233.9	4.6	474.9	2,761	53.3	26
Liberia ¹	47.1	2,518.2	2.1	231.2	802	57.6	53
Libya ¹	399.2	4,425.1	8.7	–	3,782	40.2	11
Liechtenstein ¹	2.5	27.8	6.1	–	–	33.5	11
Lithuania	186.9	1,976.1	5.8	1,342.5	5,870	33.5	11
Luxembourg	34.6	475.9	5.9	8,192.5	788	33.5	14
Madagascar ¹	535.8	13,919.8	4.6	98.5	9,718	57.6	26
Malawi	486.0	8,982.4	7.3	150.7	7,917	57.6	18
Malaysia	4,431.5	22,130.9	19.0	1,090.7	41,238	49.1	5
Maldives	27.0	404.7	9.2	1,867.4	115	43.5	15
Mali ¹	152.5	8,714.9	2.1	189.6	2,616	57.6	57
Malta	37.8	336.3	8.0	2,837.6	735	47.4	9
Marshall Islands	9.1	36.4	23.0	1,493.9	–	65.0	4
Mauritania ¹	45.0	2,386.6	2.1	284.5	514	53.3	53
Mauritius	250.4	943.4	22.6	588.4	2,320	35.7	4
Mayotte ¹	5.7	139.1	4.6	–	–	57.6	24
Mexico	14,123.2	83,741.6	16.9	1,412.3	184,384	47.5	6
Micronesia (Fed. States of) ¹	8.7	68.5	15.6	1,000.7	193	51.5	8
Monaco ¹	2.7	28.7	6.2	3,416.9	–	33.5	11
Mongolia	150.8	2,042.7	6.9	584.0	2,597	51.5	14
Montenegro ¹	54.7	454.5	9.1	–	1,014	39.6	8
Morocco	2,377.7	23,992.8	9.1	473.7	31,435	40.2	10
Mozambique	349.3	14,317.6	3.3	226.7	11,832	86.7	41
Myanmar	2,346.6	35,558.9	7.1	168.1	34,506	51.7	15
Namibia	75.0	1,375.3	6.7	2,120.9	1,674	53.3	18
Nauru ¹	1.5	6.6	23.4	1,051.5	–	48.1	4
Nepal	1,133.5	17,977.5	8.7	102.2	9,022	43.5	16
Netherlands	857.0	12,631.9	4.5	6,444.9	21,213	33.5	15
New Caledonia ¹	49.8	199.4	23.4	–	–	45.4	4
New Zealand	268.7	3,423.2	6.2	3,967.5	4,719	45.4	13
Nicaragua	365.8	4,066.0	9.3	576.5	3,654	44.8	11
Niger	423.1	9,870.6	5.2	142.0	5,302	57.6	23
Nigeria	3,623.5	96,812.4	3.6	499.7	48,375	53.3	27
North Macedonia	116.1	1,571.6	6.1	980.5	2,590	39.6	14
Northern Mariana Islands ¹	8.3	35.3	23.4	–	–	45.4	4
Norway	190.7	3,969.6	3.6	11,166.4	2,788	33.5	21
Oman	445.6	3,762.3	13.8	845.2	2,100	50.0	8
Pakistan	32,964.5	123,526.4	30.8	80.1	396,625	26.9	4
Palau	1.9	11.1	17.0	2,012.5	–	45.4	6
Panama	236.0	2,779.6	8.2	1,460.5	2,119	31.2	12
Papua New Guinea	724.0	4,974.1	16.7	167.9	10,717	51.5	7
Paraguay ¹	274.6	4,400.2	7.5	1,331.3	3,467	37.3	16
Peru	1,300.7	22,044.0	4.8	1,331.5	8,667	3	