

Table SPBS-24

S&E articles in geosciences, atmospheric sciences, and ocean sciences, whole count, by region, country, or economy: 1996–2020

(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
World	34,871	35,256	37,232	37,022	38,255	39,201	39,691	41,838	46,191	49,293	50,246	52,987	52,635	56,682	58,286	62,066	62,803	69,611	72,196	71,110	76,767	77,102	82,542	83,424	85,857
North America	13,541	13,394	13,807	13,429	13,991	13,971	14,855	16,009	18,598	18,936	19,295	19,690	18,777	19,910	20,517	21,050	21,579	23,712	24,003	23,178	24,941	24,450	26,001	24,906	24,262
Canada	2,265	2,214	2,093	2,085	2,122	2,037	2,214	2,246	2,737	2,817	2,954	3,074	3,089	3,258	3,268	3,511	3,548	3,833	3,930	3,891	4,022	3,865	4,341	4,182	4,247
Greenland	2	2	0	3	4	1	6	11	2	7	12	18	13	12	30	38	39	40	49	64	49	37	45	35	38
Mexico	325	395	403	431	472	425	476	603	559	602	613	643	642	698	746	704	810	862	829	820	924	1,021	1,062	1,036	1,067
United States	11,484	11,412	11,871	11,475	11,909	12,008	12,746	13,921	16,186	16,462	16,658	16,911	16,078	17,074	17,597	17,964	18,416	20,313	20,561	19,848	21,374	20,932	22,158	21,268	20,496
Central America and Caribbean	191	207	253	154	129	169	144	190	262	252	274	208	288	265	296	237	300	275	324	333	363	344	383	372	452
Antigua and Barbuda	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	1	0	0	1	1	1	1	0	1	0
Bahamas, The	2	5	5	1	1	1	2	2	1	2	2	4	2	1	2	8	5	6	11	5	6	18	18	18	20
Barbados	3	1	1	6	1	2	4	3	2	5	3	1	3	2	5	4	5	12	8	4	7	5	7	9	9
Belize	0	1	0	0	0	2	2	3	1	4	3	0	3	1	2	1	7	4	3	3	5	6	4	5	3
Costa Rica	65	75	66	31	33	68	49	51	88	39	91	49	67	88	77	60	97	55	83	99	91	102	113	118	121
Cuba	27	32	71	33	21	28	25	12	24	33	32	22	36	28	40	32	29	30	47	35	57	48	68	42	74
Dominica	0	0	0	0	0	1	0	2	0	2	1	0	1	0	6	0	2	0	5	1	1	2	1	1	0
Dominican Republic	1	1	2	1	1	1	2	2	0	3	4	2	4	1	3	0	3	5	6	5	4	12	11	4	11
El Salvador	1	5	2	2	0	1	3	3	23	3	5	5	1	3	4	8	8	4	3	5	12	5	6	8	5
Grenada	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	1	2	1	2	3	1	2
Guatemala	2	4	0	1	2	1	0	3	10	7	3	3	3	3	3	5	8	5	2	8	7	9	10	13	20
Haiti	0	0	0	1	1	0	2	0	0	0	0	0	1	0	5	4	1	3	2	3	6	1	5	4	5
Honduras	1	0	2	1	1	0	0	1	0	3	0	1	1	4	1	2	5	1	1	6	1	3	4	3	3
Jamaica	18	15	11	13	7	10	18	28	22	19	11	13	21	14	17	9	7	17	25	14	16	7	15	12	8
Nicaragua	4	4	5	2	5	4	2	3	4	5	7	7	17	9	6	3	6	7	16	12	7	14	7	5	8
Panama	17	17	7	10	6	11	10	12	19	29	19	28	40	37	47	31	53	56	46	45	40	52	44	59	78
Puerto Rico	41	40	74	43	49	39	36	55	47	77	81	61	77	66	75	59	53	62	70	84	88	65	68	56	74
Saint Kitts and Nevis	0	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2	2	4
Saint Lucia	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	3	1	1	0	1	0
Saint Vincent and the Grenadines	0	2	0	1	0	0	2	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0	1
Trinidad and Tobago	11	9	19	10	4	6	7	13	24	35	14	14	24	15	27	19	29	24	31	25	41	23	31	30	28
South America	934	1,072	1,148	1,179	1,155	1,218	1,429	1,697	1,689	1,931	1,962	2,142	2,309	2,632	2,621	2,993	3,158	3,651	3,718	3,747	4,169	4,323	4,709	4,956	5,680
Argentina	298	353	381	378	340	362	416	443	514	577	523	598	706	802	784	835	875	903	864	997	943	1,003	1,041	1,052	1,160
Bolivia	14	10	13	14	8	12	13	12	9	16	10	17	16	25	18	20	22	22	29	43	42	27	31	28	33

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(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brazil	364	421	476	450	497	487	603	858	735	821	875	978	990	1,194	1,155	1,436	1,449	1,931	1,932	1,892	2,230	2,292	2,523	2,689	3,210
Chile	145	121	114	190	158	187	193	222	260	266	326	348	340	366	401	420	485	468	556	552	575	622	662	726	799
Colombia	29	59	41	48	53	48	72	64	62	81	120	112	134	177	184	183	238	246	268	223	293	292	353	416	434
Ecuador	13	15	11	7	9	9	16	23	19	27	22	27	45	36	32	35	46	46	64	89	132	136	157	148	179
Guyana	1	1	0	4	1	2	1	0	0	4	2	1	0	1	0	0	2	1	5	1	1	3	4	3	2
Paraguay	1	0	2	0	0	0	0	0	4	2	3	0	2	1	1	3	4	2	4	2	1	4	10	4	7
Peru	13	21	19	13	12	16	31	18	39	34	56	40	70	76	58	71	77	88	94	81	110	111	138	156	173
Suriname	0	0	0	0	1	1	0	1	1	2	2	2	1	2	0	2	2	3	2	7	10	3	3	5	1
Uruguay	14	20	8	13	19	27	25	32	43	42	31	35	53	54	56	72	70	60	67	87	79	86	76	76	101
Venezuela	69	78	108	100	106	113	113	98	103	158	120	105	106	92	109	114	88	109	96	82	98	86	79	79	73
Europe	17,030	17,002	18,602	18,716	19,022	18,444	18,913	19,919	20,555	22,802	22,775	23,958	24,630	26,601	27,344	28,289	29,030	30,800	31,868	31,713	33,677	33,900	35,882	35,438	35,611
EU-27 and UK ^a	13,306	13,925	15,068	15,089	15,305	15,025	15,422	16,514	16,871	18,983	18,934	20,030	20,554	22,176	22,786	23,487	24,416	25,433	26,288	25,929	27,306	27,113	28,024	27,562	27,920
UK	3,267	3,503	3,823	3,706	3,944	3,584	3,854	4,049	4,137	4,654	4,731	5,093	4,799	5,297	5,616	5,371	5,691	6,261	6,479	6,430	6,800	6,745	7,298	7,005	6,852
EU-27 ^b	10,598	11,135	11,937	12,148	12,172	12,185	12,466	13,577	13,944	15,709	15,658	16,545	17,461	18,701	19,030	20,007	20,761	21,490	22,259	22,026	23,250	23,085	23,722	23,390	23,950
Austria	247	235	275	285	313	408	344	355	434	451	440	504	578	667	612	728	701	778	787	830	986	947	969	948	1,029
Belgium	363	417	378	370	373	351	461	457	469	571	554	618	696	705	697	729	764	816	874	875	880	947	901	939	999
Bulgaria	66	49	45	47	45	55	77	54	81	84	86	117	102	133	117	109	116	127	121	126	106	110	114	106	100
Croatia	121	123	147	130	173	154	179	168	199	220	195	220	202	246	244	297	313	284	234	267	242	275	319	279	328
Cyprus	5	8	3	8	0	3	5	7	6	13	12	14	18	31	55	23	45	34	49	56	78	81	89	102	90
Czechia	240	260	259	311	259	251	286	352	347	312	377	373	410	477	495	479	537	556	701	690	749	782	793	790	831
Denmark	360	429	502	503	499	515	560	609	514	589	654	641	629	706	773	750	847	889	901	921	963	977	1,050	935	973
Estonia	94	54	76	100	76	80	79	86	99	83	117	129	159	148	195	191	169	178	225	157	169	178	163	156	162
Finland	322	348	354	390	366	428	339	399	435	491	502	573	572	565	512	675	655	726	795	754	865	765	786	823	875
France	2,496	2,631	2,931	2,845	2,747	2,766	2,761	3,040	3,152	3,609	3,609	3,753	3,821	4,102	4,186	4,319	4,451	4,825	4,847	4,772	5,096	5,157	5,298	5,282	5,317
Germany	2,538	2,883	2,944	3,198	3,168	3,088	3,056	3,374	3,637	4,032	3,851	4,116	4,306	4,619	4,795	4,916	5,236	5,457	5,766	5,871	6,178	6,187	6,500	6,593	6,611
Greece	205	251	258	248	294	250	279	315	334	422	420	435	413	441	472	492	502	534	548	527	618	574	686	684	591
Hungary	130	162	179	158	153	146	182	200	250	267	245	280	291	335	347	358	337	287	341	342	356	346	363	304	350
Ireland	132	115	106	146	152	154	178	156	184	224	222	254	239	315	289	293	345	319	343	318	426	358	400	413	480
Italy	1,222	1,350	1,448	1,463	1,632	1,580	1,723	2,080	2,117	2,287	2,447	2,581	3,004	3,050	3,053	3,117	3,605	3,454	3,264	3,624	3,773	3,643	3,777	3,747	3,971
Latvia	5	6	5	21	9	10	5	8	11	10	16	12	17	17	24	27	25	22	29	25	31	44	33	38	46
Lithuania	30	40	32	48	61	48	55	46	87	79	99	90	69	70	67	97	82	76	110	90	96	100	106	74	90
Luxembourg	0	2	8	3	5	5	9	6	21	24	16	15	15	25	35	31	33	46	53	57	41	66	50	37	33
Malta	3	2	1	2	2	3	10	9	3	15	14	8	17	14	15	24	21	26	19	35	46	30	51	31	35
Netherlands	765	882	934	845	925	878	938	1,091	1,026	1,173	1,194	1,329	1,269	1,483	1,493	1,423	1,578	1,630	1,812	1,779	1,806	1,828	1,972	1,880	1,931

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Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Poland	659	588	691	644	624	596	723	794	754	841	826	807	999	1,074	1,145	1,138	1,176	1,132	1,167	1,243	1,359	1,357	1,394	1,464	1,503
Portugal	107	94	160	197	175	201	273	271	265	348	423	487	535	677	571	703	669	823	1,028	879	857	852	802	815	1,038
Romania	47	57	31	64	55	56	68	74	70	106	87	109	106	137	168	197	206	246	233	251	266	272	292	308	274
Slovakia	65	68	83	69	67	60	84	95	78	104	131	96	142	143	122	137	133	153	168	181	225	212	256	215	197
Slovenia	44	51	56	37	35	44	45	79	76	116	96	151	117	130	136	126	153	142	162	183	160	162	198	182	193
Spain	922	1,011	958	1,029	1,007	1,059	1,189	1,201	1,206	1,511	1,693	1,674	1,868	1,981	2,143	2,460	2,505	2,740	2,941	2,765	2,975	2,925	2,998	2,968	3,078
Sweden	607	534	610	650	589	637	613	661	730	798	800	820	912	977	979	1,018	1,123	1,247	1,232	1,309	1,444	1,381	1,476	1,471	1,482
Other Europe	4,432	3,906	4,457	4,571	4,636	4,304	4,564	4,594	5,093	5,330	5,423	5,671	5,888	6,423	6,595	6,982	6,992	7,997	8,271	8,692	9,520	10,052	11,348	11,313	11,320
Other Europe, 2020 ^b	7,549	7,185	8,065	8,062	8,362	7,676	8,155	8,356	8,848	9,519	9,726	10,300	10,211	11,181	11,689	11,825	12,097	13,546	14,022	14,317	15,379	15,904	17,620	17,348	17,185
Albania	10	6	8	7	6	6	6	6	5	9	8	6	20	12	20	15	19	12	6	23	16	13	13	16	14
Andorra	0	0	1	0	0	0	1	1	1	1	1	1	0	2	3	0	2	4	1	2	4	1	1	3	6
Belarus	31	26	29	34	36	25	13	23	34	25	24	21	25	17	28	24	17	41	56	32	31	25	54	33	67
Bosnia and Herzegovina	0	1	0	1	1	1	2	3	4	7	3	6	4	7	11	14	16	8	10	13	10	21	28	29	27
Holy See (Vatican City)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	1	2	1
Iceland	38	49	59	48	46	56	83	70	80	119	79	115	104	91	121	132	124	119	173	150	179	197	194	185	202
Kosovo	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	5	3	4	5	10	6	11	8	13
Liechtenstein	1	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	1	3	0	4	0	0	1	0	3
Moldova	2	1	8	4	3	1	3	1	3	0	3	2	4	2	4	6	4	8	9	3	10	5	5	9	9
Monaco	14	13	17	9	9	12	14	22	26	33	30	22	30	35	21	29	14	21	15	14	14	18	26	31	34
Montenegro ^c	0	0	0	0	0	0	0	0	0	0	0	2	4	6	5	5	12	7	17	16	11	17	16	37	25
North Macedonia	1	3	2	0	0	2	2	1	4	4	11	7	12	8	9	5	11	17	11	15	17	19	20	21	11
Norway	535	579	660	640	660	617	753	704	819	986	906	1,095	1,109	1,339	1,314	1,415	1,471	1,672	1,653	1,659	1,954	1,898	2,103	1,958	1,945
Russia	2,966	2,314	2,696	2,828	2,897	2,536	2,632	2,577	2,855	2,744	2,822	2,761	2,943	3,132	3,241	3,298	3,231	3,838	4,056	4,230	4,763	5,172	5,991	6,233	6,036
San Marino	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
Serbia ^c	0	0	0	0	0	0	0	0	0	0	0	45	53	49	73	70	98	93	86	112	118	125	133	135	139
Serbia and Montenegro ^d	25	25	26	22	21	13	19	26	36	26	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switzerland	497	588	641	649	647	643	650	780	853	925	1,056	1,089	1,188	1,284	1,221	1,417	1,434	1,567	1,646	1,770	1,819	1,869	2,033	1,928	1,988
Turkey	146	150	173	214	180	263	297	286	294	400	387	461	423	425	436	503	521	628	643	709	724	757	806	817	955
Ukraine	217	229	251	225	225	209	195	212	241	231	220	236	222	255	340	321	301	310	270	330	306	365	422	368	378
Middle East	431	401	497	410	474	514	486	596	610	790	846	981	962	1,372	1,310	1,482	1,784	2,176	2,494	2,659	2,953	2,990	3,181	3,731	3,779
Armenia	6	7	7	6	1	5	8	6	7	10	8	4	5	14	12	12	9	20	13	13	31	31	22	25	35

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(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Azerbaijan	8	7	5	3	11	9	9	11	15	19	13	10	32	23	23	34	22	23	25	27	32	30	45	50	60
Bahrain	2	0	5	3	1	3	5	5	2	10	6	11	5	9	7	4	4	9	6	6	2	16	5	16	12
Gaza Strip ^e	0	0	1	0	1	0	3	2	0	1	0	1	3	0	5	6	3	3	9	4	6	4	3	2	7
Georgia	12	8	13	19	14	14	13	24	21	11	24	32	26	22	24	33	19	26	25	21	33	28	36	34	52
Iran	19	33	25	22	40	34	35	68	97	129	169	227	184	416	395	527	623	747	799	946	1,001	1,108	1,200	1,366	1,548
Iraq	4	2	7	3	3	2	2	3	0	7	6	7	9	18	18	28	23	64	70	100	87	89	142	169	228
Israel	231	222	241	247	254	256	240	246	281	284	342	305	315	335	310	305	289	324	414	364	428	408	465	450	486
Jordan	15	9	17	9	17	16	12	27	19	45	29	37	44	23	30	22	27	38	47	59	57	40	48	57	66
Kuwait	35	16	29	27	17	32	14	21	20	42	28	57	37	88	32	57	115	98	92	124	97	103	123	152	142
Lebanon	2	10	7	8	9	5	7	7	11	20	14	23	16	17	17	12	22	28	36	45	55	49	53	67	53
Oman	18	16	20	18	13	20	21	31	21	46	35	59	54	67	82	90	84	62	98	62	80	73	89	116	79
Qatar	9	6	5	5	6	7	7	13	4	11	4	19	17	45	32	21	25	23	94	35	74	42	44	72	61
Saudi Arabia	31	36	64	25	64	84	70	88	83	97	102	130	132	210	212	267	381	608	604	675	738	759	766	907	818
Syria	6	13	7	1	9	2	9	9	6	21	8	14	8	9	21	13	15	15	15	12	18	13	16	14	15
United Arab Emirates	34	15	41	15	19	28	38	45	29	64	67	63	94	99	120	68	136	110	187	195	254	245	186	325	208
West Bank ^e	0	0	2	0	1	0	1	1	4	5	4	3	2	5	2	4	5	5	2	4	3	1	5	5	3
Yemen	6	5	9	2	2	6	0	4	1	5	6	8	3	6	11	11	18	27	34	33	39	20	23	20	31
Africa	744	763	840	863	783	858	881	1,010	1,015	1,186	1,186	1,273	1,342	1,485	1,552	1,625	1,760	2,097	2,285	2,266	2,662	2,779	2,934	3,275	3,549
Algeria	27	19	33	28	20	36	32	41	35	67	41	66	60	68	65	78	89	123	125	105	154	187	155	199	207
Angola	0	2	4	3	3	4	11	10	4	9	5	7	6	6	8	16	13	15	19	7	14	16	13	18	12
Benin	3	2	2	1	2	0	2	4	0	4	1	3	5	10	7	9	7	11	21	17	22	29	28	44	30
Botswana	6	8	14	10	16	10	11	18	20	25	33	32	19	17	12	14	10	16	24	23	19	28	54	39	49
Burkina Faso	2	4	3	1	6	2	1	8	5	1	2	4	4	7	5	10	10	15	8	17	16	16	30	25	22
Burundi	3	2	0	4	1	2	0	4	0	3	0	2	2	0	2	1	0	2	9	2	1	2	4	3	6
Cabo Verde	0	0	0	1	0	1	0	4	1	0	3	1	1	4	5	1	1	6	10	12	9	11	7	6	13
Cameroon	7	9	7	7	17	11	8	22	18	16	30	20	30	24	37	30	42	56	45	52	48	75	71	103	87
Central African Republic	1	2	0	1	0	0	0	0	1	0	1	2	3	1	1	0	2	4	1	1	2	1	1	3	4
Chad	0	1	1	0	2	5	1	0	3	9	8	4	6	6	6	4	3	4	2	3	3	3	4	5	5
Comoros	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	2
Congo, Democratic Republic of the	1	0	4	0	3	1	0	1	1	3	11	10	6	10	9	8	5	10	9	14	18	20	11	24	19
Congo, Republic of the	7	1	1	1	0	3	0	3	0	2	7	4	8	7	7	7	7	9	11	7	10	20	7	15	14

Table SPBS-24

S&E articles in geosciences, atmospheric sciences, and ocean sciences, whole count, by region, country, or economy: 1996–2020

(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Sudan	3	6	3	3	3	3	1	2	0	7	5	4	5	3	22	15	8	10	10	10	14	15	19	14	16
Tanzania	14	14	10	30	12	15	14	33	27	34	29	42	39	31	43	30	33	37	60	42	52	68	57	78	63
Togo	0	3	0	1	2	1	0	3	2	2	2	2	2	5	0	0	1	2	1	4	2	5	7	5	5
Tunisia	17	20	36	30	40	40	42	35	33	93	60	70	105	135	113	128	152	189	181	186	196	205	215	210	201
Uganda	5	6	1	3	5	5	4	7	6	9	13	13	11	10	26	12	17	18	28	24	33	22	31	32	39
Zambia	1	1	5	11	4	5	3	7	5	9	7	5	6	7	6	5	8	6	11	13	14	10	13	13	19
Zimbabwe	23	21	16	29	18	23	21	29	30	16	27	27	23	18	15	30	23	20	26	19	26	36	34	30	37
Asia	4,871	5,267	5,367	5,618	5,793	7,005	6,840	7,595	9,518	10,152	11,152	12,226	12,710	13,711	14,503	16,769	16,630	20,181	22,215	22,152	24,766	26,061	28,802	31,182	34,093
Afghanistan	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	0	0	0	2	2	1	4	23	13	10
Bangladesh	11	11	16	14	16	13	21	19	24	18	22	17	38	29	30	30	52	58	54	69	82	106	106	129	180
Bhutan	0	0	0	0	1	0	3	0	1	2	3	1	1	3	3	5	2	9	5	6	8	5	4	3	9
Brunei	6	5	6	12	15	6	7	21	11	7	9	8	7	11	7	5	20	21	20	18	28	39	57	57	61
Burma	0	0	3	2	3	2	4	3	7	8	5	9	11	6	6	14	8	7	14	12	15	19	30	38	41
Cambodia	0	0	0	1	0	2	0	1	0	2	0	3	10	6	2	2	5	2	9	11	5	10	14	17	13
China	1,898	2,000	2,129	2,324	2,348	3,322	2,911	3,463	4,591	5,395	5,950	6,863	6,815	7,769	7,992	9,584	9,856	12,473	13,984	14,445	16,382	17,425	19,347	21,645	23,864
India	765	794	741	723	694	720	764	787	856	926	1,036	1,165	1,240	1,335	1,352	1,856	1,715	1,973	2,236	2,244	2,335	2,373	2,595	2,850	3,190
Indonesia	58	71	49	79	75	44	54	55	75	80	92	121	126	123	139	155	185	214	223	230	290	302	423	446	478
Japan	1,614	1,853	1,836	1,842	1,988	2,158	2,310	2,532	2,984	2,831	2,997	2,934	3,317	3,134	3,357	3,397	3,023	3,311	3,329	2,980	3,334	3,522	3,443	3,399	3,481
Kazakhstan	16	14	15	12	19	25	15	17	14	23	25	16	25	28	32	27	30	56	76	79	60	68	141	113	124
Kyrgyzstan	6	5	3	3	6	4	6	6	5	9	19	19	19	8	14	18	14	25	21	33	44	35	44	26	25
Laos	1	1	1	2	0	0	1	2	1	7	2	1	3	1	0	6	5	6	8	6	6	7	12	13	8
Malaysia	40	29	22	33	36	36	35	46	50	64	89	108	170	170	216	291	244	399	528	405	403	411	500	664	601
Maldives	4	0	1	1	0	5	0	3	1	1	2	7	3	0	1	3	13	3	5	9	8	10	7	5	20
Mongolia	11	9	5	10	13	12	9	19	14	21	17	29	31	37	39	30	29	52	52	42	60	58	59	63	69
Nepal	3	6	5	13	15	11	12	11	10	18	19	14	12	15	17	30	22	29	47	59	75	79	58	92	107
North Korea	0	0	0	0	0	0	0	0	0	1	2	1	0	3	0	1	3	0	2	3	6	2	10	8	13
Pakistan	23	16	20	22	23	27	32	20	19	19	32	41	37	54	57	82	93	128	162	210	218	243	318	340	481
Papua New Guinea	5	5	10	5	8	7	7	11	9	8	5	5	11	6	5	4	11	7	6	9	9	7	5	11	17
Philippines	52	53	33	51	47	41	39	48	64	52	50	65	60	75	68	93	60	95	106	122	134	200	198	210	313
Singapore	26	25	31	43	37	42	37	49	75	65	66	68	71	82	138	133	155	201	249	249	264	299	311	347	354
South Korea	136	178	233	244	242	357	396	432	605	534	621	620	743	767	943	1,031	1,100	1,244	1,284	1,255	1,375	1,468	1,538	1,605	1,773
Sri Lanka	7	9	5	10	12	17	5	10	13	14	22	23	23	19	20	23	31	27	43	30	44	63	52	55	64
Taiwan	272	269	291	310	330	337	346	347	468	424	472	571	575	677	696	730	825	826	859	755	744	796	1,005	764	786
Tajikistan	8	4	5	13	9	6	6	10	7	9	7	5	0	2	6	1	6	16	9	13	10	12	14	17	36
Thailand	23	33	42	36	50	51	48	63	59	79	103	100	93	115	138	133	163	174	157	194	217	209	272	267	315

Table SPBS-24

S&E articles in geosciences, atmospheric sciences, and ocean sciences, whole count, by region, country, or economy: 1996–2020

(Number)

Region, country, or economy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Timor-Leste	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	2	2	1	2	1	2	3	1	3	2
Turkmenistan	2	2	2	0	5	0	1	1	1	0	1	1	0	1	3	1	5	3	4	2	2	3	0	0	0
Uzbekistan	6	10	10	5	5	6	5	3	12	8	9	2	5	17	10	16	10	30	7	13	12	25	37	23	44
Vietnam	9	19	16	15	26	27	14	21	37	37	34	46	51	57	80	78	83	99	124	99	128	164	205	283	341
Australia and Oceania	1,904	2,110	2,233	2,184	2,204	2,217	2,103	2,389	2,613	2,896	2,909	3,275	3,079	3,408	3,553	4,000	3,941	4,324	4,539	4,762	5,004	4,871	5,073	5,295	5,460
Australia	1,498	1,682	1,805	1,726	1,795	1,763	1,669	1,928	2,162	2,365	2,345	2,691	2,512	2,792	2,863	3,303	3,214	3,640	3,801	3,981	4,245	4,136	4,309	4,507	4,597
Cook Islands	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	4	3	1	8	2	3	5	2	4	2
Fiji	4	12	6	9	10	9	4	3	8	15	11	12	8	9	6	12	16	16	21	16	21	22	25	28	47
Kiribati	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	4	1	2	1	0	0	0
Marshall Islands	0	2	0	0	1	0	0	1	0	0	4	0	1	1	1	0	2	0	2	1	0	0	0	2	1
Micronesia, Federated States of	0	0	2	0	0	1	0	2	2	3	2	4	4	1	3	3	2	2	4	3	2	4	2	2	4
Nauru	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
New Zealand	450	478	497	501	444	492	490	524	544	621	645	689	636	699	795	827	844	841	902	941	935	920	922	936	1,051
Niue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0
Palau	0	2	0	0	0	3	0	2	2	6	2	4	3	2	0	2	3	5	7	6	6	7	10	16	8
Samoa	0	0	0	0	0	2	1	1	0	5	1	1	1	1	2	3	3	3	5	1	2	2	3	1	4
Solomon Islands	8	4	1	5	4	3	0	4	1	6	6	3	3	2	1	5	1	3	3	2	3	2	2	5	5
Tonga	0	0	0	0	1	0	0	2	0	1	2	0	0	1	1	1	0	0	2	1	1	3	1	3	5
Tuvalu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	1	1	0	1	0
Vanuatu	0	3	1	2	5	1	0	0	1	4	4	0	3	7	3	4	6	4	5	6	10	7	5	6	12
Unassigned	508	449	469	553	385	288	425	386	516	837	1,079	1,069	967	578	271	243	243	294	240	146	212	218	298	850	1,024

EU = European Union; UK = United Kingdom.

^a The UK was a part of the EU for data purposes from 1973 to 2019.^b Beginning in 2020, the UK was no longer a member of the EU.^c Beginning in 2006, Serbia and Montenegro represented individual countries.^d Serbia and Montenegro represented a single country for data purposes from 1992 to 2006.^e West Bank and Gaza Strip are separate entities in this list but are grouped in the World Bank Lending Groups classification list. Here, the economic status of the group is applied to both individual regions.

Note(s):

Article counts refer to publications from selected journals and conference papers in S&E from Scopus. Articles are classified by their year of publication and are assigned to a region, country, or economy on the basis of the institutional address(es) of author(s) listed in the article. Articles are credited on a whole count basis. In whole counting, each region, country, or economy with a collaborating author on an article is credited with one count. The sum of the whole count for regions, countries, or economies does not add to the world total because of multiple counts of coauthored publications. Some publications have incomplete address information for coauthored publications in the Scopus database. The Unassigned category count is the sum of whole counts for publications that cannot be assigned to a region, country, or economy.

Source(s):

National Center for Science and Engineering Statistics; Science-Metrix; Elsevier, Scopus abstract and citation database, accessed May 2021.

Science and Engineering Indicators