



How Bibliographic Dataset Portrays Decreasing Number of Scientific Publication from Indonesia

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ABSTRACT

Among countries that experience growing of scientific publication number, Indonesia faces decreasing in its number during period of 2018-2019. This situation is alarming amid country's effort to improve its research and development from which the scientific publication has been used as a measure. This article presents a dataset of bibliometric from all Indonesian institutions (424 institutions as of January 2020) indexed by Scopus database. We collected data on documents per year and document type. Different from other datasets, this article presents longitudinal data from 2014-2019, in which during this period dramatic change occurs from steep rise, exponential, and degradation during 2018-2019 according to SINTA (Indonesian scientific indexing) database. We analyzed publication number from leading institutions at different points in time and compared document types (i.e., number of journal article and conference paper, in which both types are the driving force of Indonesia's growing scientific publication number). Since this dataset covers all country's institutions, it is potential for reuse by policy makers in research and development, researchers from each institution, as well as other stakeholders.

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1. INTRODUCTION

These data presents bibliometric analysis of all Indonesian institutions whose scientific publications (i.e., conference paper, journal article, review, editorial, book chapter, letter, note, erratum, book, short survey, abstract report, data paper, and report) indexed in Scopus, an Elsevier's citation database and the largest citation database indexing around 18,500 peer-reviewed journals (Scopus, 2011). Most of these institutions provide higher education services, researches, community services in Indonesia.

We collected data on documents per year and document type. Different from other datasets (Nasution, 2018; Darmadji et al., 2018; Darmadji et al., 2018), this article presents longitudinal data from 2014-2019, in which during this period dramatic change occurs from steep rise, exponential, and degradation during 2018-2019 according to SINTA (Indonesian scientific indexing) database (See **Figure 1**). We analyzed publication number from leading institutions at different points in time and compared document types (i.e., number of journal article and conference paper, in which both types are the driving force of Indonesia's growing scientific publication number).

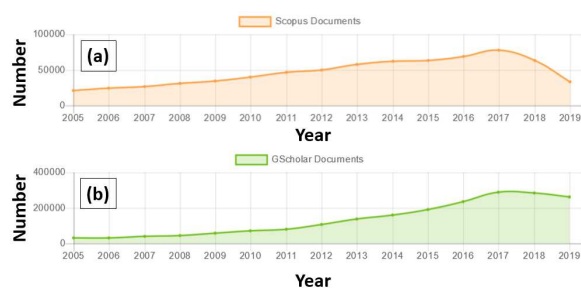


Figure 1. Appearance from Sinta web (<http://sinta2.ristekdikti.go.id/>) based on (a) scopus and (b) google scholar

In this dataset, Scopus was selected as the database because of it is used by the Government of Indonesia to rank universities (Sadjuga, 2017; Ministry of Research

Technology and Higher Education, 2016), to evaluate tenure track of professorship (Directorate of Higher Education Ministry of Education and Culture, 2014), and to evaluate rank of researchers which can be used when they apply government's research grant. Scopus is also integrated into SINTA (Indonesian scientific indexing) database along with Google Scholar. In addition, Scopus was used as one of the evaluation criteria in the QS Star World Class University rank. Several values from the dataset obtained in this study are

(i) The dataset in this article provides a simple tool to identify decreasing number of a country's scientific publication as an alarming situation in the country's research and education activities, and helps policy makers, researchers, and other stakeholders to act accordingly

(ii) This dataset gives benefits for policy makers, researchers, and other stakeholders for improving quality of research and education in higher education

(iii) These data can be used as a guideline for further insight and development in maintaining further longitudinal dataset by each institution and policy makers in order to identify alarming situations in research and education activities

(iv) These data provide detail information on scientific publication of all Indonesian institutions at different points of time while these types of data are not available yet

2. METHOD

The data were collected from Scopus database (www.scopus.com) on 28 January 2020. In the Scopus database, we selected institutional search and use "Indonesia" as the keyword. We retrieved all the Indonesian institutions (424 institutions) provided by the search engine to ensure the coverage of data. For each institution, we collected the number of "documents per year" and "documents type per year" manually. All data were

extracted, calculated, and filtered. These data were then put in a Microsoft Excel (.xlsx extension) file. From this file, we evaluated and calculated specific value. In addition, we limited data in the range from 2014 to 2019 since this range is the most intrigues number of publications in Indonesia. The data can be used as a guidance by policy makers, researchers or stake holders for further analyses.

3. DATA DESCRIPTION

Table 1 presents the number of documents in Scopus published by all Indonesian institutions as of January 2020. It also presents the percentage contribution of

each institution to country's total scientific publication number.

Table 2 presents total contribution of the institutions in the certain range of ranks due to large gap of publication number among them. We categorized the institutions into 6 (six) classifications: (i) from rank 1 to 10, (ii) from rank 11 to 20, (iii) from rank 21 to 50, (iv) from 51 to 100, (v) from 101 to 200, and (vi) from 201 to 424.

From **Tables 1** and **2**, only 100 institutions contribute more than 90 percent of total Indonesian scientific publication number. Detailed information about the contribution accumulation is shown on the far-right column of **Table 1**.

Tabel 1. Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
1	Universitas Indonesia	15,959	9.6763	9.6763
2	Institut Teknologi Bandung	13,558	8.2205	17.8968
3	Universitas Gadjah Mada	10,271	6.2275	24.1243
4	Institut Pertanian Bogor	6,369	3.8617	27.9860
5	Institut Teknologi Sepuluh Nopember	6,097	3.6967	31.6827
6	Universitas Diponegoro	5,872	3.5603	35.2430
7	Lembaga Ilmu Pengetahuan Indonesia	5,376	3.2596	38.5026
8	Brawijaya University	4,969	3.0128	41.5154
9	Universitas Airlangga	4,323	2.6211	44.1366
10	Universitas Sebelas Maret	4,112	2.4932	46.6298
11	Universitas Padjadjaran	4,088	2.4786	49.1084
12	Universitas Sumatera Utara	4,033	2.4453	51.5537
13	Hasanuddin University	3,949	2.3944	53.9481
14	Bina Nusantara University	3,296	1.9984	55.9465
15	Universitas Pendidikan Indonesia	2,668	1.6177	57.5642
16	Universitas Syiah Kuala	2,575	1.5613	59.1254
17	Universitas Andalas	2,377	1.4412	60.5667
18	Telkom University	2,178	1.3206	61.8872
19	Universitas Sriwijaya	1,801	1.0920	62.9792
20	University of Indonesia, RSUPN Dr. Cipto Mangunkusumo	1,787	1.0835	64.0627
21	Universitas Udayana	1,691	1.0253	65.0880
22	Center for International Forestry Research, West Java	1,661	1.0071	66.0951
23	Universitas Negeri Malang	1,639	0.9938	67.0889
24	Universitas Islam Indonesia	1,415	0.8579	67.9468
25	Universitas Negeri Yogyakarta	1,152	0.6985	68.6453

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
26	Universitas Lampung	1,144	0.6936	69.3389
27	Universitas Jember	1,117	0.6773	70.0162
28	Universitas Negeri Semarang	1,062	0.6439	70.6601
29	Badan Tenaga Nuklir Nasional Indonesia	1,015	0.6154	71.2755
30	Universitas Negeri Jakarta	995	0.6033	71.8788
31	Universitas Riau	986	0.5978	72.4766
32	Universitas Jenderal Soedirman	968	0.5869	73.0636
33	Universitas Ahmad Dahlan	898	0.5445	73.6080
34	Universitas Negeri Surabaya	882	0.5348	74.1428
35	Universitas Negeri Padang	771	0.4675	74.6103
36	Universitas Negeri Makassar	756	0.4584	75.0687
37	Badan Pengkajian dan Penerapan Teknologi	742	0.4499	75.5186
38	Politeknik Elektronika Negeri Surabaya	729	0.4420	75.9606
39	Sam Ratulangi University	691	0.4190	76.3795
40	Universitas Mulawarman	686	0.4159	76.7955
41	Ministry of Health, Republic of Indonesia	672	0.4074	77.2029
42	Universitas Halu Oleo	654	0.3965	77.5995
43	Universitas Islam Negeri Syarif Hidayatullah Jakarta	644	0.3905	77.9899
44	Universitas Surabaya	634	0.3844	78.3743
45	UIN Sunan Gunung Djati	609	0.3692	78.7436
46	Universitas Kristen Petra	605	0.3668	79.1104
47	Universitas Tadulako	545	0.3304	79.4409
48	U.S. Naval Medical Research Unit No. 2, Jakarta	523	0.3171	79.7580
49	Universitas Komputer Indonesia	518	0.3141	80.0720
50	Universitas Muhammadiyah Surakarta	506	0.3068	80.3788
51	Bengkulu University	498	0.3019	80.6808
52	Universitas Mercu Buana	498	0.3019	80.9827
53	Universitas Katolik Parahyangan	497	0.3013	81.2841
54	Universitas Muhammadiyah Yogyakarta	472	0.2862	81.5703
55	Lambung Mangkurat University	464	0.2813	81.8516
56	Universitas Widyatama	461	0.2795	82.1311
57	Satya Wacana Christian University	441	0.2674	82.3985
58	Universitas Sultan Ageng Tirtayasa	438	0.2656	82.6641
59	Eijkman Institute for Molecular Biology	427	0.2589	82.9230
60	Universitas Pelita Harapan	426	0.2583	83.1812

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
61	Helen Keller International	419	0.2540	83.4353
62	Fauna & Flora International	416	0.2522	83.6875
63	Badan Penelitian Dan Pengembangan Kesehatan, Kementerian Kesehatan Republik Indonesia	414	0.2510	83.9385
64	Universitas Katolik Indonesia Atma Jaya	409	0.2480	84.1865
65	University of Mataram	407	0.2468	84.4333
66	Dr. Soetomo Hospital	403	0.2443	84.6776
67	Universitas Trisakti	403	0.2443	84.9220
68	Universitas Dian Nuswantoro	390	0.2365	85.1585
69	Universitas Sanata Dharma	365	0.2213	85.3798
70	Hasan Sadikin Hospital	364	0.2207	85.6005
71	Universitas Negeri Medan	362	0.2195	85.8200
72	Gunadarma University	347	0.2104	86.0304
73	Universitas Malikussaleh	339	0.2055	86.2359
74	Universitas Atma Jaya Yogyakarta	323	0.1958	86.4317
75	Tarumanagara University	319	0.1934	86.6252
76	Widya Mandala Surabaya Catholic University	318	0.1928	86.8180
77	Universitas Muhammadiyah Malang	315	0.1910	87.0090
78	Universitas Pattimura	303	0.1837	87.1927
79	Universitas Kristen Maranatha	295	0.1789	87.3715
80	Universitas Musamus Merauke	286	0.1734	87.5449
81	Tanjungpura University	280	0.1698	87.7147
82	Universitas Pendidikan Ganesha	277	0.1680	87.8827
83	Universitas Bung Hatta	269	0.1631	88.0458
84	Pertamina, Jakarta	266	0.1613	88.2070
85	Politeknik Negeri Bandung	257	0.1558	88.3629
86	State Polytechnic of Malang	253	0.1534	88.5163
87	PT Perusahaan Listrik Negara Persero	249	0.1510	88.6672
88	Museum Zoologicum Bogoriense	231	0.1401	88.8073
89	Universitas Budi Luhur	214	0.1298	88.9371
90	State Islamic University of Malang	208	0.1261	89.0632
91	State University of Gorontalo	206	0.1249	89.1881
92	Universitas Muslim Indonesia	205	0.1243	89.3124
93	Indonesian Agency for Agricultural Research and Development	203	0.1231	89.4355
94	Universitas Palangka Raya	203	0.1231	89.5585
95	Herbarium Bogoriense	201	0.1219	89.6804
96	National Institute of Technology ITN Malang	199	0.1207	89.8011
97	Ministry of Agriculture, Indonesia	196	0.1188	89.9199
98	Universitas Islam Riau	193	0.1170	90.0369
99	Universitas Pembangunan Nasional Veteran Jawa Timur	193	0.1170	90.1539
100	Politeknik Negeri Lhokseumawe	189	0.1146	90.2685

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
101	Universitas Pancasila	183	0.1110	90.3795
102	Politeknik Negeri Ujung Pandang	179	0.1085	90.4880
103	Politeknik Negeri Bali	178	0.1079	90.5960
104	Universitas Pembangunan Nasional "Veteran" Yogyakarta	178	0.1079	90.7039
105	Universitas Islam Negeri Sunan Kali- jaga, Yogyakarta	174	0.1055	90.8094
106	Universitas Trunojoyo Madura	169	0.1025	90.9118
107	Pakuan University	167	0.1013	91.0131
108	Universitas Multimedia Nusantara	165	0.1000	91.1131
109	Universitas Terbuka	163	0.0988	91.2120
110	Universitas Muhammadiyah Sidoarjo	162	0.0982	91.3102
111	Universitas Kristen Indonesia	161	0.0976	91.4078
112	Politeknik Negeri Sriwijaya	159	0.0964	91.5042
113	Institut Teknologi Sumatera ITERA	154	0.0934	91.5976
114	Universitas Nasional	151	0.0916	91.6892
115	Soegijapranata Catholic University	149	0.0903	91.7795
116	ICRAF World Agroforestry Centre, Bo- gor	148	0.0897	91.8692
117	Universitas Islam Sultan Agung Sema- rang	146	0.0885	91.9578
118	Wildlife Conservation Society, Bogor	144	0.0873	92.0451
119	Universitas Warmadewa	142	0.0861	92.1312
120	Shipbuilding Institute of Polytechnic Surabaya	141	0.0855	92.2167
121	UIN Sunan Ampel Surabaya	140	0.0849	92.3015
122	President University	140	0.0849	92.3864
123	Universitas Muhammadiyah Purwok- erto	139	0.0843	92.4707
124	Universitas Bakrie	138	0.0837	92.5544
125	Politeknik Negeri Medan	137	0.0831	92.6374
126	Indonesian Center for Agricultural Bio- technology and Genetic Resources Re- search and Development	134	0.0812	92.7187
127	Universitas Jenderal Achmad Yani	133	0.0806	92.7993
128	Universitas Khairun	132	0.0800	92.8794
129	Pusat Jantung Nasional Harapan Kita	131	0.0794	92.9588
130	Universitas Jambi	131	0.0794	93.0382

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
	Departemen Energi dan Sumber Daya			
131	Mineral Republic of Indonesia	128	0.0776	93.1158
132	Narotama University	127	0.0770	93.1928
133	Politeknik Negeri Jember	127	0.0770	93.2698
134	Universitas Al Azhar Indonesia	124	0.0752	93.3450
135	Institut Teknologi Nasional Bandung	123	0.0746	93.4196
136	Universitas PGRI Semarang	123	0.0746	93.4942
137	Universitas Islam Bandung	122	0.0740	93.5681
138	YARSI University	121	0.0734	93.6415
139	Universitas Bangka Belitung	115	0.0697	93.7112
140	University of Nusa Cendana	115	0.0697	93.7810
141	Universitas Wijaya Kusuma Surabaya	115	0.0697	93.8507
142	Politeknik Negeri Batam	113	0.0685	93.9192
143	Politeknik Negeri Jakarta	111	0.0673	93.9865
	Universitas Kristen Krida Wacana -			
144	UKRIDA	110	0.0667	94.0532
145	Ministry of Public Works, Jakarta	110	0.0667	94.1199
146	University of Muhammadiyah Jakarta	109	0.0661	94.1860
	Universitas Muhammadiyah Prof. Dr.			
147	HAMKA	107	0.0649	94.2509
148	The World Bank, Indonesia	106	0.0643	94.3151
149	Universitas Putra Indonesia	103	0.0625	94.3776
150	Universitas Kanjuruhan Malang	102	0.0618	94.4394
	Health Polytechnic of the Health			
151	Ministry of Surabaya	101	0.0612	94.5007
152	Institut Teknologi Adhi Tama Surabaya	100	0.0606	94.5613
153	Politeknik Negeri Padang	99	0.0600	94.6213
154	BIOTROP	98	0.0594	94.6807
155	Universitas Islam Negeri Ar-Raniry	95	0.0576	94.7383
156	Operation Wallacea Ltd.	94	0.0570	94.7953
157	Universitas Sarjanawiyata Tamansiswa	94	0.0570	94.8523
158	Universitas Hang Tuah Surabaya	93	0.0564	94.9087
159	Universitas Muhammadiyah Surabaya	91	0.0552	94.9639
160	Universitas Pembangunan Panca Budi	91	0.0552	95.0191
161	Universitas Islam Malang	90	0.0546	95.0736
162	Universitas Teknologi Yogyakarta	89	0.0540	95.1276
	Universitas Muhammadiyah			
163	Tasikmalaya	88	0.0534	95.1810
164	Universitas PGRI Madiun	88	0.0534	95.2343
	Public Health and Malaria Control De-			
165	partment, Papua	87	0.0527	95.2871
166	Universitas Indraprasta PGRI	86	0.0521	95.3392
167	University of Merdeka Malang	85	0.0515	95.3907
168	Universitas Muhammadiyah Semarang	85	0.0515	95.4423
169	Institute of Technology Padang	84	0.0509	95.4932
170	STMIK Nusamandiri	83	0.0503	95.5435

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
171	STIKOM Bali	82	0.0497	95.5933
172	Marine Geological Institute	78	0.0473	95.6405
173	Politeknik Negeri Samarinda	78	0.0473	95.6878
174	Research Institute for Veterinary Science, Bogor	78	0.0473	95.7351
175	Forestry Research and Development Agency	76	0.0461	95.7812
176	Institut Teknologi Indonesia	74	0.0449	95.8261
177	Universitas Langlangbuana	74	0.0449	95.8710
178	Universitas Dr. Soetomo	73	0.0443	95.9152
179	Universitas Ma Chung	73	0.0443	95.9595
180	WWF-Indonesia	73	0.0443	96.0037
181	Politeknik Caltex Riau	72	0.0437	96.0474
182	Muhammadiyah University of Magelang	70	0.0424	96.0898
183	Sekolah Tinggi Teknologi Garut	70	0.0424	96.1323
184	Universitas Islam Negeri Walisongo Semarang	70	0.0424	96.1747
185	Universitas Muhammadiyah Sumatera Utara	69	0.0418	96.2166
186	Universitas AMIKOM Purwokerto	68	0.0412	96.2578
187	Institut Teknologi Medan	68	0.0412	96.2990
188	Geological Research and Development Centre, Bandung	67	0.0406	96.3396
189	Universitas Islam Negeri Raden Intan Lampung	67	0.0406	96.3803
190	Universitas Muhammadiyah Palembang	67	0.0406	96.4209
191	PT Freeport Indonesia	67	0.0406	96.4615
192	Research Center of Maju Makmur	67	0.0406	96.5021
193	Mandiri Foundation	65	0.0394	96.5415
194	Bank Indonesia	65	0.0394	96.5810
195	Universitas Ciputra	65	0.0394	96.6204
196	People & Nature Consulting International	65	0.0394	96.6204
197	AMCS Research Center	64	0.0388	96.6592
198	Universitas Muhammadiyah Makassar	64	0.0388	96.6980
199	Universitas Pasundan	63	0.0382	96.7362
200	Universitas Persada Indonesia YAI Jakarta, Indonesia	63	0.0382	96.7744
200	Universitas Semarang	63	0.0382	96.8126

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
201	UNTAG University	63	0.0382	96.8508
	Pusat Vulkanologi dan Mitigasi	63	0.0382	96.8890
202	Bencana Geologi	62	0.0376	96.9266
203	Sekolah Tinggi Ilmu Manajemen Sukma	61	0.0370	96.9635
204	Politeknik Negeri Semarang	61	0.0370	97.0005
205	Universitas Prasetiya Mulya	59	0.0358	97.0363
206	Universitas Djuanda	59	0.0358	97.0721
207	Janabadra University	59	0.0358	97.1078
208	Institut Teknologi Kalimantan	59	0.0358	97.1436
209	Kementerian Perindustrian, Indonesia	59	0.0358	97.1794
210	Universitas Muria Kudus	58	0.0352	97.2146
211	Universitas Garut	56	0.0340	97.2485
212	Universitas Maritim Raja Ali Haji	56	0.0340	97.2825
213	Sekolah Tinggi Agama Islam Negeri, So- rong	56	0.0340	97.3164
214	SKK Migas	56	0.0340	97.3504
215	Universitas Teuku Umar	55	0.0333	97.3837
216	Universitas Widyagama Malang	54	0.0327	97.4165
217	SMERU Research Institute	53	0.0321	97.4486
218	Universitas Sulawesi Barat	52	0.0315	97.4801
219	Manado State University	52	0.0315	97.5117
220	STKIP PGRI Sumbar	52	0.0315	97.5432
221	World Health Organization, Indonesia	51	0.0309	97.5741
222	Universitas Bina Darma	51	0.0309	97.6050
223	Faculty of Medicine, YARSI University	51	0.0309	97.6360
224	Forest and Nature Conservation	51	0.0309	97.6669
225	Research and Development Centre, Bogor	51	0.0309	97.6972
226	Universitas Islam Negeri Sultan Syarif Kasim Riau	50	0.0303	97.7275
227	Universitas Borneo Tarakan	50	0.0303	97.7578
228	Universitas Kristen Indonesia Paulus	50	0.0303	97.7875
229	Universitas Pancasakti Tegal	49	0.0297	97.8166
230	Politeknik Negeri Kupang	48	0.0291	97.8439
231	Sekolah Tinggi Ilmu Statistik	45	0.0273	97.8712
232	Universitas Bhayangkara Surabaya	45	0.0273	97.8985
233	Indonesian Oil and Palm Research Insti- tute	45	0.0273	97.9258
234	Universitas Islam Negeri Raden Fatah Palembang	45	0.0273	97.9531
235	Sekolah Tinggi Teknik - PLN	44	0.0267	97.9797
236	Universitas Wahid Hasyim	44	0.0267	98.0064
237	Caltex Pacific Indonesia	44	0.0267	98.0331
238	Badan Meteorologi dan Geofisika	43	0.0261	98.0592
239	Universitas PGRI Yogyakarta	43	0.0261	98.0852
240	Islamic University of Kalimantan	43	0.0261	
	Sekolah Tinggi Teknik Surabaya	43	0.0261	

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
241	Poltekkes Kemenkes Semarang	42	0.0255	98.1107
242	Kalbis Institute	41	0.0249	98.1356
243	Setia Budi University	41	0.0249	98.1604
244	Institut Agama Islam Negeri, Surakarta	40	0.0243	98.1847
245	Universitas Mercu Buana Yogyakarta	39	0.0236	98.2083
246	Nusa Putra University	39	0.0236	98.2320
247	Universitas Nusantara PGRI Kediri	39	0.0236	98.2556
248	Universitas Paramadina	39	0.0236	98.2793
249	Central Research Institute for Food Crops, Bogor	38	0.0230	98.3023
250	Institut Teknologi Telkom Purwokerto	38	0.0230	98.3253
251	Universitas Pembangunan Nasional Veteran Jakarta	38	0.0230	98.3484
252	Politeknik Negeri Pontianak	38	0.0230	98.3714
253	Sekolah Tinggi Teknologi Nasional, Yogyakarta	38	0.0230	98.3945
254	Universitas Ubudiyah Indonesia	38	0.0230	98.4175
255	IRD ex ORSTOM, Jakarta	37	0.0224	98.4399
256	Institut Keguruan dan Ilmu Pendidikan Siliwangi	36	0.0218	98.4618
257	Universitas Nahdlatul Ulama Surabaya	36	0.0218	98.4836
258	Universitas Prof. Dr. Moestopo, Beragama	36	0.0218	98.5054
259	Universitas Pembangunan Jaya	35	0.0212	98.5266
260	STMIK AKBA	35	0.0212	98.5479
261	AMIKOM Yogyakarta University	34	0.0206	98.5685
262	Food and Agriculture Organization of the United Nations, Indonesia	32	0.0194	98.5879
263	STIKOM Dinamika Bangsa	32	0.0194	98.6073
264	STMIK IBBI	32	0.0194	98.6267
265	Airlangga University School of Medicine	31	0.0188	98.6455
266	Bernofarm Pharmaceutical Company	31	0.0188	98.6643
267	Sekolah Tinggi Teknologi Adisutjipto	31	0.0188	98.6831
268	STIE YKPN School of Business	31	0.0188	98.7019
269	Borneo Nature Foundation	30	0.0182	98.7201
270	Politeknik Pos Indonesia	30	0.0182	98.7382
271	PT. Bio Farma	30	0.0182	98.7564
272	Universitas Respati Yogyakarta	30	0.0182	98.7746
273	Universitas Cokroaminoto Palopo	29	0.0176	98.7922
274	Indonesia Defense University	29	0.0176	98.8098
275	Universitas Islam Sumatera Utara	29	0.0176	98.8274

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
276	Universitas Muhammadiyah Gorontalo	29	0.0176	98.8450
277	STMIK Raharja	29	0.0176	98.8625
278	Universitas Islam Nusantara	28	0.0170	98.8795
	National Development Planning			
279	Agency, Jakarta	28	0.0170	98.8965
	Universitas Islam Negeri Sumatera			
280	Utara	28	0.0170	98.9135
281	USAID, Indonesia	28	0.0170	98.9304
282	Poltekkes Kemenkes Makassar	27	0.0164	98.9468
283	Prasetiya Mulya Business School	27	0.0164	98.9632
	Center for Soil and Agroclimate Re-			
284	search, Bogor	26	0.0158	98.9790
285	Institut Sains dan Teknologi Nasional	26	0.0158	98.9947
286	Universitas Malahayati	26	0.0158	99.0105
287	Universitas Muhammadiyah Metro	26	0.0158	99.0262
	Muhammadiyah University of Pal-			
288	angkaraya	26	0.0158	99.0420
	Institut Agama Islam Negeri Syekh Nur-			
289	jati Cirebon	25	0.0152	99.0572
	Universitas Islam Negeri Antasari Ban-			
290	jarmasin	25	0.0152	99.0723
291	Politeknik Negeri Lampung	25	0.0152	99.0875
292	Universitas Suryakencana	25	0.0152	99.1026
	Pusat Penelitian Perkebunan Gula In-			
293	donesia	24	0.0146	99.1172
294	Universitas Islam 45	24	0.0146	99.1317
295	Universitas Mahasaraswati Denpasar	24	0.0146	99.1463
	Politeknik Pertanian Negeri Paya-			
296	kumbuh	23	0.0139	99.1602
297	Universitas Borobudur	23	0.0139	99.1742
298	Fajar University	23	0.0139	99.1881
299	Universitas Ibn Khaldun Bogor	23	0.0139	99.2021
300	Institut Teknologi dan Sains Bandung	23	0.0139	99.2160
	Universitas Islam Negeri Alauddin			
301	Makassar	23	0.0139	99.2300
	Kementerian Riset Teknologi dan			
302	Pendidikan Tinggi Republik Indonesia	23	0.0139	99.2439
303	Politeknik Negeri Ambon	23	0.0139	99.2579
304	PT Badak NGL	23	0.0139	99.2718
305	Universitas Sari Mutiara Indonesia	23	0.0139	99.2858
306	STIE Perbanas Surabaya	23	0.0139	99.2997
307	International Potato Center, Bogor	22	0.0133	99.3130
308	University Muhammadiyah Aceh	22	0.0133	99.3264
309	Universitas Nusa Bangsa	22	0.0133	99.3397
310	Politeknik ATI Padang	21	0.0127	99.3524
311	Politeknik Manufaktur Negeri Bandung	21	0.0127	99.3652

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
	Politeknik Manufaktur Negeri Bangka			
312	Belitung	21	0.0127	99.3779
313	STKIP Singkawang	21	0.0127	99.3906
	Yogyakarta Animal Disease			
314	Investigation Centre	21	0.0127	99.4034
315	Atlantic Richfield Indonesia Inc	20	0.0121	99.4155
316	Institut Agama Islam Negeri Bengkulu	19	0.0115	99.4270
317	PT Kalbe Farma Tbk.	19	0.0115	99.4385
318	STMIK Dharma Wacana Metro	19	0.0115	99.4501
319	Politeknik Negeri Indramayu	18	0.0109	99.4610
320	Institut Agama Islam Negeri Manado	17	0.0103	99.4713
321	Politeknik Pertanian Negeri Kupang	17	0.0103	99.4816
322	Laboratorium Klinik Prodia, Jakarta	17	0.0103	99.4919
323	Universitas Muhammadiyah Jember	17	0.0103	99.5022
324	Universitas Riau Kepulauan	17	0.0103	99.5125
325	State Islamic Institute IAIN Kudus	16	0.0097	99.5222
326	Institut Agama Islam Negeri Palopo	16	0.0097	99.5319
327	Universitas PGRI Ronggolawe Tuban	16	0.0097	99.5416
328	Politeknik Negeri Banyuwangi	16	0.0097	99.5513
329	Rockefeller Foundation in Indonesia	16	0.0097	99.5610
330	Sekolah Tinggi Ilmu Ekonomi Ekuitas	16	0.0097	99.5707
331	Institut Agama Islam Negeri Palu	16	0.0097	99.5804
332	Universitas 'Aisyiyah Yogyakarta	15	0.0091	99.5895
333	Universitas Batam	15	0.0091	99.5986
334	Universitas Batanghari	15	0.0091	99.6077
335	ENI Indonesia Ltd	15	0.0091	99.6168
336	PT Dirgantara Indonesia	15	0.0091	99.6259
337	Wetlands International, Indonesia	15	0.0091	99.6350
338	Universitas Abdurrab	14	0.0085	99.6435
339	Mitra Masyarakat Hospital, Indonesia	14	0.0085	99.6520
	Universitas 17 Agustus 1945 Banyu-			
340	wangi	13	0.0079	99.6599
341	Universitas Buddhi Dharma	13	0.0079	99.6677
	Institut Agama Islam Negeri Tulunga-			
342	gung	13	0.0079	99.6756
343	STMIK Amik Riau	13	0.0079	99.6835
344	Universitas Katolik De La Salle	12	0.0073	99.6908
	Nutrition Research and Development			
345	Centre, Bogor	12	0.0073	99.6981
346	Universitas Pelita Harapan Surabaya	12	0.0073	99.7053
	Universitas Prof. Dr. Hazairin SH.			
347	Bengkulu	12	0.0073	99.7126
348	University of Darussalam Gontor	11	0.0067	99.7193
	Gondol Research Station for Coastal			
349	Fisheries, Bali	11	0.0067	99.7259
	Institut Keguruan Dan Ilmu Pendidikan			
350	PGRI Bali	11	0.0067	99.7326
	University of North Sumatra Medical			
351	School	11	0.0067	99.7393
352	STKIP Muhammadiyah Kuningan	11	0.0067	99.7460

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
	Universitas Buana Perjuangan			
353	Karawang	10	0.0061	99.7520
354	Sekolah Tinggi Manajemen Ipmi	10	0.0061	99.7581
355	Universitas Islam Batik Surakarta	10	0.0061	99.7641
356	Universitas Kuningan	10	0.0061	99.7702
	Universitas Pesantren Tinggi Darul			
357	Ulum	10	0.0061	99.7763
358	Polytechnic STMI Jakarta	10	0.0061	99.7823
359	Sekolah Tinggi Ilmu Farmasi Makassar	10	0.0061	99.7884
360	Sekolah Tinggi Teknologi Pekanbaru	10	0.0061	99.7945
361	STIKes Muhammadiyah Ciamis	10	0.0061	99.8005
362	STMIK AMIK Bandung	10	0.0061	99.8066
363	STMIK Dipanegara Makassar	10	0.0061	99.8126
364	STMIK JAKARTA STI & K	10	0.0061	99.8187
365	Center for Pulp and Paper, Indonesia	9	0.0055	99.8242
366	IKIP PGRI Bojonegoro	9	0.0055	99.8296
	Japan International Cooperation			
367	Agency, Indonesia	9	0.0055	99.8351
368	Rumah Sakit Pantai Indah Kapuk	9	0.0055	99.8405
369	Universitas Peradaban	9	0.0055	99.8460
370	STIKES Mandala Waluya Kendari	9	0.0055	99.8515
	Universitas Veteran Bangun Nusantara			
371	Sukoharjo	9	0.0055	99.8569
	Balai Penyelidikan dan Pemakaian			
372	Karet, Bogor	8	0.0049	99.8618
373	Institut Teknologi Telkom Surabaya	8	0.0049	99.8666
	Sekolah Tinggi Ilmu Ekonomi Adi			
374	Unggul Bhirawa	8	0.0049	99.8715
375	Seroja Rheumatic Center	8	0.0049	99.8763
	Departemen Kehutanan			
376	Republik Indonesia	8	0.0049	99.8812
377	University of Ekasakti	7	0.0042	99.8854
	Fish Health Research Laboratory,			
378	Jakarta	7	0.0042	99.8896
379	UNISNU Jepara	7	0.0042	99.8939
380	Universitas Katolik Musi Charitas	7	0.0042	99.8981
381	Politeknik APP Jakarta	7	0.0042	99.9024
382	Universitas Boyolali	6	0.0036	99.9060
383	Universitas Islam Indragiri	6	0.0036	99.9097
384	Badan Pengawas Obat dan Makanan	6	0.0036	99.9133
	Regional Science Bureau for Asia and			
385	the Pacific, Indonesia	6	0.0036	99.9169
	Research Institute for Freshwater Fish-			
386	eries, Bogor	6	0.0036	99.9206
387	East Java Leprosy Control Project	5	0.0030	99.9236
388	Institut Agama Islam Negeri Bukittinggi	5	0.0030	99.9266
389	Institut Agama Islam Negeri Mataram	5	0.0030	99.9297
390	Repsol, Indonesia	5	0.0030	99.9327

Tabel 1 (continue). Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

No	Institution	Document	% contribution	% accumulation
391	Sekolah Tinggi Manajemen Informatika dan Komputer Banjarbaru	5	0.0030	99.9357
392	STIE Muhammadiyah Jakarta	5	0.0030	99.9388
393	STMIK Atma Luhur, Pangkalpinang	5	0.0030	99.9418
394	Centre for Alleviation of Poverty Through Secondary Crops Development in Asia and the Pacific, Indonesia	4	0.0024	99.9442
395	Ciputra Group	4	0.0024	99.9466
396	Yayasan Bumi Sehat	4	0.0024	99.9491
397	Institut Agama Islam Negeri Samarinda	4	0.0024	99.9515
398	Institut Parahikma Indonesia	4	0.0024	99.9539
399	Universitas Islam Jakarta	4	0.0024	99.9563
400	LASMO Runtu Ltd.	4	0.0024	99.9588
401	PPM Institute of Management	4	0.0024	99.9612
402	Rumah Sakit Puri Cinere	4	0.0024	99.9636
403	STIE Multi Data Palembang	4	0.0024	99.9660
404	Yayasan Pijar Cendikiawan	4	0.0024	99.9685
405	Universitas Airlangga Fakultas Farmasi Taman Nasional Baluran Republik Indonesia	3	0.0018	99.9703
406	Universitas Islam Darul Ulum Lamongan	3	0.0018	99.9721
407	Universitas Kutai Kartanegara	3	0.0018	99.9739
408	Poltekkes Kemenkes Jakarta II	3	0.0018	99.9757
409	PT Haskoning Indonesia	3	0.0018	99.9776
410	Sekolah Tinggi Ilmu Ekonomi Ahmad Dahlan Jakarta	3	0.0018	99.9794
411	Sekolah Tinggi Ilmu Komputer PGRI Banyuwangi	3	0.0018	99.9812
412	Sekolah Tinggi Maritim dan Transpor AMNI	3	0.0018	99.9830
413	Sekolah Tinggi Pariwisata Ambarukmo	3	0.0018	99.9848
414	Wetlands International Malaysia	3	0.0018	99.9867
415	World Food Program, Indonesia	3	0.0018	99.9885
416	BHP Billiton Limited, Indonesia	3	0.0018	99.9903
417	Himpunan Masyarakat Nuklir Indonesia	2	0.0012	99.9915
418	Indonesian Railway Company, Ltd.	2	0.0012	99.9927
419	Kementerian Negara Lingkungan Hidup, Republik Indonesia	2	0.0012	99.9939
420	National Veterinary Drug Assay Laboratory, Indonesia	2	0.0012	99.9951
421	Sekolah Tinggi Ilmu Ekonomi Indonesia	2	0.0012	99.9964
422	Sekolah Tinggi Teknologi Industri dan Farmasi Bogor	2	0.0012	99.9976
423	Sekolah Tinggi Ilmu Kesehatan 'Aisyiyah Bandung	2	0.0012	99.9988
424		2	0.0012	100.0000
Total		164,929	100	

Table 2. Total scientific publication of Indonesian institutions by Scopus database (as of January 27, 2020)

Rank	Number of publications	% contribution
1-10	76,906	46.6298
11-20	28,752	17.4330
21-50	26,910	16.3161
50-100	16,311	9.8897
100-200	10,793	6.5440
201-424	5,257	3.1874

Table 2 shows the cumulative number of scientific publications by top 105 best institutions according to Scopus database at different points of time (annually from 2014 until 2019). These 105 best institutions were selected based on the accumulation data as shown in **Table 1**. The increases in number of publications every year during 2014 to 2019 period can simply be viewed from this **Table 2**. We also included the percentage of change of publication number in comparison with the data from previous year.

Table 3 shows the number of top 100 institutions' scientific publications in conference proceedings at different points of time. The data were retrieved from 2014 to 2019. We included the percentage of change of publication number "between 2017 and 2018" and "between 2018 and 2019". The data comprised positive and negative values, corresponding to increasing and decreasing number of conference proceedings, respectively. The selection of 2017-2018 and 2018-2019 represents the start of stagnancy of

publication boosting in Indonesia.

Table 4 shows the number of top 100 institutions' scientific publications in journal articles at different points of time. The data were retrieved from 2014 to 2019. We included the percentage of change of publication number "between 2017 and 2018" and "between 2018 and 2019". Similar to the **Table 4**, the data comprised positive and negative values, corresponding to increasing and decreasing number of journal articles, respectively. The selection of 2017-2018 and 2018-2019 represents the start of stagnancy of publication boosting in Indonesia, as shown in the far-right column of **Table 3**.

Based on **Tables 3** and **4**, some institutions have negative value in the number of conference proceedings and article journals. The more number of institutions with negative values in conference proceedings compared to that in article journals can be found.

Table 3. Cumulative scientific publication in conference proceedings by top 100 Indonesian institutions indexed by Scopus database (period 2014-2019)

No	Institution	Year						%change	
		2014	2015	2016	2017	2018	2019	2017-2018	2018-2019
1	Universitas Indonesia	196	140	363	1240	2226	1776	79.5161	-20.2156
2	Institut Teknologi Bandung	606	625	867	1212	1501	1188	23.8449	-20.8528
3	Universitas Gadjah Mada	187	125	410	612	895	869	46.2418	-2.9050
4	Institut Pertanian Bogor	44	41	103	269	485	509	80.2974	4.9485
5	Institut Teknologi Sepuluh Nopember	143	183	268	793	1000	906	26.1034	-9.4000
6	Universitas Diponegoro	59	95	162	356	1217	871	241.8539	-28.4306
7	Lembaga Ilmu Pengetahuan Indonesia	45	112	215	443	588	639	32.7314	8.6735
8	Brawijaya University	71	30	52	244	506	572	107.3770	13.0435
9	Universitas Airlangga	5	7	45	105	160	275	52.3810	71.8750
10	Universitas Sebelas Maret	78	33	255	499	889	832	78.1563	-6.4117
11	Universitas Padjadjaran	26	50	97	204	413	340	102.4510	-17.6755
12	Universitas Sumatera Utara	17	7	37	272	1228	738	351.4706	-39.9023
13	Hasanuddin University	48	30	32	107	353	894	229.9065	153.2578
14	Bina Nusantara University	78	80	93	364	568	381	56.0440	-32.9225
15	Universitas Pendidikan Indonesia	10	16	141	435	492	751	13.1034	52.6423
16	Universitas Syiah Kuala	28	19	32	124	432	532	248.3871	23.1481
17	Universitas Andalas	22	21	20	55	151	249	174.5455	64.9007
18	Telkom University	71	120	148	325	395	394	21.5385	-0.2532
19	Universitas Sriwijaya	40	27	23	153	181	425	18.3007	134.8066
20	University of Indonesia, RSUPN Dr. Cipto Mangunkusumo	1	1	4	13	40	39	207.6923	-2.5000
21	Universitas Udayana	13	14	33	54	100	137	85.1852	37.0000
22	Center for International Forestry Research, West Java	0	4	0	4	15	26	275.0000	73.3333
23	Universitas Negeri Malang	12	4	66	126	281	380	123.0159	35.2313
24	Universitas Islam Indonesia	26	39	86	179	278	145	55.3073	-47.8417
25	Universitas Negeri Yogyakarta	8	5	11	77	200	315	159.7403	57.5000
26	Universitas Lampung	11	12	18	48	92	156	91.6667	69.5652
27	Universitas Jember	9	6	7	41	120	237	192.6829	97.5000
28	Universitas Negeri Semarang	8	8	36	82	185	226	125.6098	22.1622
29	Badan Tenaga Nuklir Nasional Indonesia	35	20	24	55	104	149	89.0909	43.2692
30	Universitas Negeri Jakarta	9	7	13	45	145	262	222.2222	80.6897
31	Universitas Riau	10	16	10	50	122	109	144.0000	-10.6557
32	Universitas Jenderal Soedirman	6	7	14	23	80	196	247.8261	145.0000
33	Universitas Ahmad Dahlan	3	2	19	64	94	91	46.8750	-3.1915
34	Universitas Negeri Surabaya	7	6	12	39	387	108	892.3077	-72.0930
35	Universitas Negeri Padang	7	9	9	16	157	332	881.2500	111.4650
36	Universitas Negeri Makassar	3	1	13	32	176	118	450.0000	-32.9545
37	Badan Pengkajian dan Penerapan Teknologi	9	16	9	27	58	47	114.8148	-18.9655
38	Politeknik Elektronika Negeri Surabaya	16	16	50	201	82	217	-59.2040	164.6341
39	Sam Ratulangi University	4	6	12	16	20	51	25.0000	155.0000
40	Universitas Mulawarman	1	4	12	42	101	63	140.4762	-37.6238

Table 3 (continue). Cumulative scientific publication in conference proceedings by top 105 Indonesian institutions indexed by Scopus database (period 2014-2019)

No	Institution	Year					%change		
		2014	2015	2016	2017	2018	2019	2017-2018	2018-2019
41	Ministry of Health, Republic of Indonesia	0	0	1	3	14	13	366.6667	-7.1429
42	Universitas Halu Oleo	5	10	14	37	55	103	48.6486	87.2727
43	Universitas Islam Negeri Syarif Hidayatullah Jakarta	32	9	37	76	38	47	-50.0000	23.6842
44	Universitas Surabaya	7	13	13	37	45	46	21.6216	2.2222
45	UIN Sunan Gunung Djati	3	5	14	32	190	211	493.7500	11.0526
46	Universitas Kristen Petra	14	39	19	57	40	55	-29.8246	37.5000
47	Universitas Tadulako	5	4	8	14	43	84	207.1429	95.3488
48	U.S. Naval Medical Research Unit No. 2, Jakarta	0	0	0	0	0	0	0.0000	0.0000
49	Universitas Komputer Indonesia	3	3	2	2	186	256	9200.0000	37.6344
50	Universitas Muhammadiyah Surakarta	16	4	15	29	83	69	186.2069	-16.8675
51	Bengkulu University	5	5	7	31	40	59	29.0323	47.5000
52	Universitas Mercu Buana	10	3	10	50	118	48	136.0000	-59.3220
53	Universitas Katolik Parahyangan	8	15	28	37	56	36	51.3514	-35.7143
54	Universitas Muhammadiyah Yogya- karta	1	3	15	20	39	39	95.0000	0.0000
55	Lambung Mangkurat University	1	2	2	11	26	45	136.3636	73.0769
56	Universitas Widyatama	4	5	9	6	9	7	50.0000	-22.2222
57	Satya Wacana Christian University	8	10	13	33	37	27	12.1212	-27.0270
58	Universitas Sultan Ageng Tirtayasa	12	5	18	33	68	88	106.0606	29.4118
59	Eijkman Institute for Molecular Biol- ogy	1	0	2	2	7	1	250.0000	-85.7143
60	Universitas Pelita Harapan	5	10	12	31	45	35	45.1613	-22.2222
61	Helen Keller International	0	0	0	0	0	0	0.0000	0.0000
62	Fauna & Flora International	0	4	2	0	1	2	0.0000	100.0000
63	Badan Penelitian Dan Pengembangan Kesehatan, Kementerian Kesehatan Republik Indonesia	0	0	1	0	3	5	0.0000	66.6667
64	Universitas Katolik Indonesia Atma Jaya	7	4	5	17	32	23	88.2353	-28.1250
65	University of Mataram	2	2	5	9	41	45	355.5556	9.7561
66	Dr. Soetomo Hospital	0	0	0	4	10	7	150.0000	-30.0000
67	Universitas Trisakti	5	4	8	27	36	25	33.3333	-30.5556
68	Universitas Dian Nuswantoro	1	6	6	45	75	47	66.6667	-37.3333
69	Universitas Sanata Dharma	2	4	23	38	43	34	13.1579	-20.9302
70	Hasan Sadikin Hospital	0	1	3	7	1	2	-85.7143	100.0000
71	Universitas Negeri Medan	2	5	8	18	85	63	372.2222	-25.8824
72	Gunadarma University	6	7	19	22	68	18	209.0909	-73.5294
73	Universitas Malikussaleh	4	2	1	8	86	43	975.0000	-50.0000
74	Universitas Atma Jaya Yogyakarta	3	14	10	48	61	35	27.0833	-42.6230
75	Tarumanagara University	8	2	6	13	24	80	84.6154	233.3333

Table 3 (continue). Cumulative scientific publication in conference proceedings by top 105 Indonesian institutions indexed by Scopus database (period 2014-2019)

No	Institution	Year					%change		
		2014	2015	2016	2017	2018	2019	2017-2018	2018-2019
	Widya Mandala Surabaya Catholic								
76	University	1	1	3	2	5	9	150.0000	80.0000
77	Universitas Muhammadiyah Malang	7	4	10	16	39	59	143.7500	51.2821
78	Universitas Pattimura	0	2	2	16	13	53	-18.7500	307.6923
79	Universitas Kristen Maranatha	2	3	5	8	32	31	300.0000	-3.1250
80	Universitas Musamus Merauke	1	0	0	1	31	157	3000.0000	406.4516
81	Tanjungpura University	5	8	5	14	14	12	0.0000	-14.2857
82	Universitas Pendidikan Ganesha	2	3	4	11	54	64	390.9091	18.5185
83	Universitas Bung Hatta	5	19	21	36	78	72	116.6667	-7.6923
84	Pertamina, Jakarta	2	2	6	13	40	34	207.6923	-15.0000
85	Politeknik Negeri Bandung	12	3	17	14	43	39	207.1429	-9.3023
86	State Polytechnic of Malang	5	6	2	13	59	47	353.8462	-20.3390
87	PT Perusahaan Listrik Negara Persero	10	13	12	41	31	31	-24.3902	0.0000
88	Museum Zoologicum Bogoriense	0	0	0	0	0	1	0.0000	0.0000
89	Universitas Budi Luhur	34	19	9	1	2	22	100.0000	1000.0000
90	State Islamic University of Malang	26	8	2	0	1	41	0.0000	4000.0000
91	State University of Gorontalo	18	10	1	0	0	32	0.0000	0.0000
92	Universitas Muslim Indonesia	56	5	1	0	1	17	0.0000	1600.0000
	Indonesian Agency for Agricultural								
93	Research and Development	8	3	4	5	4	23	-20.0000	475.0000
94	Universitas Palangka Raya	8	5	1	0	2	3	0.0000	50.0000
95	Herbarium Bogoriense	0	0	0	0	0	3	0.0000	0.0000
	National Institute of Technology ITN								
96	Malang	32	20	5	2	2	23	0.0000	1050.0000
97	Ministry of Agriculture, Indonesia	12	2	0	2	2	12	0.0000	500.0000
98	Universitas Islam Riau	26	12	9	4	3	30	-25.0000	900.0000
	Universitas Pembangunan Nasional								
99	Veteran, Jawa Timur	42	7	36	0	0	19	0.0000	0.0000
100	Politeknik Negeri Lhokseumawe	34	11	5	1	7	95	600.0000	1257.1429

Table 4. Cumulative scientific publication in peer-reviewed journals by top 100 Indonesian institutions indexed by Scopus database (period 2014-2019)

No	Institution	Year						%change	
		2014	2015	2016	2017	2018	2019	2017-2018	2018-2019
1	Universitas Indonesia	357	529	652	1182	1239	1550	4.8223	25.1009
2	Institut Teknologi Bandung	342	439	504	589	625	696	6.1121	11.3600
3	Universitas Gadjah Mada	337	430	697	729	983	1132	34.8422	15.1577
4	Institut Pertanian Bogor	325	445	527	483	543	623	12.4224	14.7330
5	Institut Teknologi Sepuluh Nopember	141	219	283	264	392	475	48.4848	21.1735
6	Universitas Diponegoro	107	139	243	673	484	515	-28.0832	6.4050
7	Lembaga Ilmu Pengetahuan Indonesia	168	205	254	322	366	457	13.6646	24.8634
8	Brawijaya University	216	337	382	431	667	720	54.7564	7.9460
9	Universitas Airlangga	97	110	176	345	668	1482	93.6232	121.8563
10	Universitas Sebelas Maret	76	109	161	209	286	390	36.8421	36.3636
11	Universitas Padjadjaran	108	163	239	350	498	666	42.2857	33.7349
12	Universitas Sumatera Utara	56	101	169	229	429	377	87.3362	-12.1212
13	Hasanuddin University	109	138	202	274	412	622	50.3650	50.9709
14	Bina Nusantara University	134	205	129	166	277	477	66.8675	72.2022
15	Universitas Pendidikan Indonesia	38	38	129	108	122	221	12.9630	81.1475
16	Universitas Syiah Kuala	85	135	127	159	249	282	56.6038	13.2530
17	Universitas Andalas	98	187	261	238	282	289	18.4874	2.4823
18	Telkom University	24	48	96	133	160	146	20.3008	-8.7500
19	Universitas Sriwijaya	52	72	86	105	143	194	36.1905	35.6643
20	University of Indonesia, RSUPN Dr. Cipto Mangunkusumo	68	84	122	163	155	269	-4.9080	73.5484
21	Universitas Udayana	70	74	85	131	191	278	45.8015	45.5497
22	Center for International Forestry Research, West Java	101	90	106	126	117	120	-7.1429	2.5641
23	Universitas Negeri Malang	19	38	68	103	146	258	41.7476	76.7123
24	Universitas Islam Indonesia	22	47	78	97	143	117	47.4227	-18.1818
25	Universitas Negeri Yogyakarta	16	13	27	70	133	200	90.0000	50.3759
26	Universitas Lampung	32	42	63	114	126	136	10.5263	7.9365
27	Universitas Jember	19	43	46	87	126	194	44.8276	53.9683
28	Universitas Negeri Semarang	20	15	71	83	103	122	24.0964	18.4466
29	Badan Tenaga Nuklir Nasional Indonesia	29	23	26	60	86	75	43.3333	-12.7907
30	Universitas Negeri Jakarta	15	20	25	62	62	242	0.0000	290.3226
31	Universitas Riau	23	51	46	84	87	129	3.5714	48.2759
32	Universitas Jenderal Soedirman	38	39	60	104	110	130	5.7692	18.1818
33	Universitas Ahmad Dahlan	21	41	55	76	80	206	5.2632	157.5000
34	Universitas Negeri Surabaya	12	32	33	47	58	66	23.4043	13.7931
35	Universitas Negeri Padang	16	24	19	19	28	96	47.3684	242.8571
36	Universitas Negeri Makassar	16	66	64	50	87	90	74.0000	3.4483
37	Badan Pengkajian dan Penerapan Teknologi	17	20	28	40	36	43	-10.0000	19.4444
38	Politeknik Elektronika Negeri Surabaya	3	6	11	20	14	23	-30.0000	64.2857
39	Sam Ratulangi University	35	44	41	76	68	68	-10.5263	0.0000
40	Universitas Mulawarman	18	35	34	69	93	79	34.7826	-15.0538

Table 4 (continue). Cumulative scientific publication in peer-reviewed journals by top 100 Indonesian institutions indexed by Scopus database (period 2014-2019)

No	Institution	Year						%change	
		2014	2015	2016	2017	2018	2019	2017-2018	2018-2019
41	Ministry of Health, Republic of Indonesia	23	45	33	64	110	141	71.8750	28.1818
42	Universitas Halu Oleo	21	38	45	55	92	79	67.2727	-14.1304
43	Universitas Islam Negeri Syarif Hidayatullah Jakarta	22	38	36	32	48	63	50.0000	31.2500
44	Universitas Surabaya	36	54	35	40	64	92	60.0000	43.7500
45	UIN Sunan Gunung Djati	6	11	10	19	26	42	36.8421	61.5385
46	Universitas Kristen Petra	28	17	25	22	50	35	127.2727	-30.0000
47	Universitas Tadulako	27	24	34	64	73	78	14.0625	6.8493
48	U.S. Naval Medical Research Unit No. 2, Jakarta	0	1	4	0	1	0	0.0000	-100.0000
49	Universitas Komputer Indonesia	0	1	8	21	7	22	-66.6667	214.2857
50	Universitas Muhammadiyah Surakarta	11	15	28	21	37	128	76.1905	245.9459
51	Bengkulu University	14	32	19	54	53	69	-1.8519	30.1887
52	Universitas Mercu Buana	1	13	14	48	48	104	0.0000	116.6667
53	Universitas Katolik Parahyangan	12	25	21	37	32	43	-13.5135	34.3750
54	Universitas Muhammadiyah Yogya- karta	19	19	28	42	79	107	88.0952	35.4430
55	Lambung Mangkurat University	19	32	53	60	70	71	16.6667	1.4286
56	Universitas Widyatama	0	9	8	8	24	347	200.0000	1345.8333
57	Satya Wacana Christian University	11	20	23	22	36	59	63.6364	63.8889
58	Universitas Sultan Ageng Tirtayasa	10	16	26	42	37	54	-11.9048	45.9459
59	Eijkman Institute for Molecular Biol- ogy	13	37	44	38	55	47	44.7368	-14.5455
60	Universitas Pelita Harapan	3	26	30	21	28	62	33.3333	121.4286
61	Helen Keller International	16	22	32	41	31	49	-24.3902	58.0645
62	Fauna & Flora International	28	23	21	25	31	36	24.0000	16.1290
63	Badan Penelitian Dan Pengembangan Kesehatan, Kementerian Kesehatan Republik Indonesia	8	17	18	26	22	29	-15.3846	31.8182
64	Universitas Katolik Indonesia Atma Jaya	17	16	21	35	58	57	65.7143	-1.7241
65	University of Mataram	23	14	32	30	62	46	106.6667	-25.8065
66	Dr. Soetomo Hospital	9	12	18	29	50	155	72.4138	210.0000
67	Universitas Trisakti	7	10	14	22	34	40	54.5455	17.6471
68	Universitas Dian Nuswantoro	12	15	27	29	27	48	-6.8966	77.7778
69	Universitas Sanata Dharma	15	14	35	22	33	28	50.0000	-15.1515
70	Hasan Sadikin Hospital	17	17	17	28	43	49	53.5714	13.9535
71	Universitas Negeri Medan	6	10	13	19	36	49	89.4737	36.1111
72	Gunadarma University	21	9	17	28	18	29	-35.7143	61.1111
73	Universitas Malikussaleh	10	11	9	10	47	58	370.0000	23.4043
74	Universitas Atma Jaya Yogyakarta	6	10	8	22	24	35	9.0909	45.8333
75	Tarumanagara University	3	7	15	19	24	23	26.3158	-4.1667

Table 4 (continue). Cumulative scientific publication in peer-reviewed journals by top 100 Indonesian institutions indexed by Scopus database (period 2014-2019)

No	Institution	Year						%change	
		2014	2015	2016	2017	2018	2019	2017-2018	2018-2019
	Widya Mandala Surabaya Catholic								
76	University	30	16	29	34	28	42	-17.6471	50.0000
77	Universitas Muhammadiyah Malang	9	19	28	19	31	41	63.1579	32.2581
78	Universitas Pattimura	7	19	26	28	28	41	0.0000	46.4286
79	Universitas Kristen Maranatha	5	15	27	37	34	34	-8.1081	0.0000
80	Universitas Musamus Merauke	0	1	0	5	48	40	860.0000	-16.6667
81	Tanjungpura University	9	19	28	26	33	29	26.9231	-12.1212
82	Universitas Pendidikan Ganesha	2	8	3	22	56	32	154.5455	-42.8571
83	Universitas Bung Hatta	3	14	16	24	31	39	29.1667	25.8065
84	Pertamina, Jakarta	1	2	5	7	23	39	228.5714	69.5652
85	Politeknik Negeri Bandung	5	9	9	15	24	33	60.0000	37.5000
86	State Polytechnic of Malang	5	12	6	18	25	30	38.8889	20.0000
87	PT Perusahaan Listrik Negara Persero	1	0	3	9	5	10	-44.4444	100.0000
88	Museum Zoologicum Bogoriense	15	15	17	32	21	21	-34.3750	0.0000
89	Universitas Budi Luhur	3	1	10	48	16	28	-66.6667	75.0000
90	State Islamic University of Malang	3	8	23	18	24	30	33.3333	25.0000
91	State University of Gorontalo	6	13	21	20	43	28	115.0000	-34.8837
92	Universitas Muslim Indonesia	3	6	15	6	18	59	200.0000	227.7778
	Indonesian Agency for Agricultural								
93	Research and Development	25	18	26	32	32	54	0.0000	68.7500
94	Universitas Palangka Raya	15	11	13	12	25	19	108.3333	-24.0000
95	Herbarium Bogoriense	3	10	8	4	11	10	175.0000	-9.0909
	National Institute of Technology ITN								
96	Malang	7	8	8	9	34	13	277.7778	-61.7647
97	Ministry of Agriculture, Indonesia	11	13	7	15	21	42	40.0000	100.0000
98	Universitas Islam Riau	2	0	26	17	18	26	5.8824	44.4444
	Universitas Pembangunan Nasional								
99	Veteran, Jawa Timur	1	6	10	7	25	33	257.1429	32.0000
100	Politeknik Negeri Lhokseumawe	4	1	1	2	11	6	450.0000	-45.4545

4. CONCLUSION

This article presents a dataset of bibliometric from all Indonesian institutions (424 institutions as of January 2020) indexed by Scopus database. We collected data on documents per year and document type. Different from other datasets, this article presents longitudinal data from 2014-2019, in which during this period dramatic change occurs from steep rise, exponential, and degrada-

tion during 2018-2019. We analyzed publication number from leading institutions at different points in time and compared document types (i.e., number of journal article and conference paper, in which both types are the driving force of Indonesia's growing scientific publication number). This dataset is potentially reused by policy makers in research and development, researchers from each institution, as well as other stakeholders.

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6. AUTHORS' NOTE

The author(s) declare(s) that there is no conflict of interest regarding the publication of this article. Authors confirmed that the data and the paper are free of plagiarism.

7. REFERENCES

Darmadji, A., Prasajo, L. D., Kusumaningrum, F. A., and Andriansyah, Y. (2018a). Research productivity and international collaboration of top Indonesian universities. *Current Science*, 115(4), 653-658.

Darmadji, A., Prasajo, L. D., Riyanto, Y., Kusumaningrum, F. A., and Andriansyah, Y. (2018b). Publications of islamic university of indonesia in scopus database: a bibliometric assessment. *Collnet Journal of Scientometrics and Information Management*, 12(1), 109-131.

Directorate of Higher Education Ministry of Education and Culture, Pedoman operasional penilaian angka kredit kenaikan pangkat/jabatan akademik dosen [Operational guide to credit points for lecturer's academic position promotion]. Directorate of Higher Education, Ministry of Education and Culture, Jakarta, 2014.

<http://sinta2.ristekdikti.go.id/>, Retrieved on January 21, 2020.

Ministry of Research Technology and Higher Education, "Strength of 50 Indonesian Academic Institutions: Profile of Academic Publication in Scopus." Directorate of Research Empowerment and Development, Ministry of Research, Technology and Higher Education, Jakarta, 2016.

Nasution, M. K. (2018). Indonesia knowledge dissemination: A snapshot. *Journal of Physics: Conference Series*, 978(1), 012012.

Sadjuga, "Ministry of Research, Technology, and Higher Education Policy on National and International Journal." Ministry of Research, Technology, and Higher Education, Jakarta, 2017.

Scopus (2011) Content coverage guide. Retrieved from <http://www.info.sciverse.com/scopus/scopus-in-detail/facts> on January 27th, 2020