

LETTERS

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EARTH AND PLANETARY SCIENCES IN SJR 2014: A PERFORMANCE ANALYSIS

1. An effort is made to analyse the growth of publications in the subject area Earth and Planetary Sciences (EPS) over the period 1996-2014 by using the data and rankings provided by the SCImago in its online portal on Journal & Country Rank (www.scimagojr.com; accessed during 10-15 March 2016). The SCImago Journal & Country Rank (SJR) portal providing journals and country scientific indicators is developed by using the primary data in the Scopus database.

The SJR provides country rankings and performance indicators in different subject areas of science, in different categories of subject areas and in different geographical regions. It also provides subject wise rankings and indicators for a country and an option to compare the performance of different countries in different subject areas with categories.

2. In this study, I tried to focus on the publication (documents) growth patterns in the subject area EPS and two of its categories: Atmospheric Science and Oceanography in India and its comparison with that of China and Japan with special reference to the Asiatic Region over the period 1996-2014 by analyzing the data and rankings as provided by SJR.

In the country rankings in the subject area EPS including all its categories over all the geographical regions, China is ranked No. 2, Japan No. 8 and India No. 12. In the category of ‘Atmospheric Science’ over all regions, China is ranked at No. 4, Japan No. 6 and India No. 11 and in the category of ‘Oceanography’ over all regions, China is ranked at No. 5, Japan No. 6 and India No. 14 (Fig. 1). This shows that India stands better in the SJR global country rankings in Atmospheric Science compared to Oceanography.

In the country rankings in EPS and in its categories of Atmospheric Science and Oceanography in the Asiatic Region, China remains No. 1 with Japan at No. 2 and India at No. 3. Therefore, in the Asiatic Region, the

(a)	Country	Documents	(b)	Country	Documents	(c)	Country	Documents
1	United States	422,646	1	United States	73,189	1	United States	60,855
2	China	216,902	2	Germany	17,501	2	United Kingdom	17,138
3	United Kingdom	130,707	3	United Kingdom	17,367	3	Germany	13,724
4	Germany	122,951	4	China	13,906	4	France	12,879
5	France	97,630	5	France	12,675	5	China	11,588
6	Canada	74,248	6	Japan	10,671	6	Japan	10,876
7	Italy	73,836	7	Canada	10,057	7	Canada	9,918
8	Japan	71,267	8	Russian Federation	6,678	8	Australia	8,883
9	Russian Federation	70,924	9	Italy	6,582	9	Russian Federation	8,423
10	Australia	59,185	10	Australia	6,440	10	Italy	6,761
11	Spain	48,328	11	India	6,039	11	Spain	6,660
12	India	42,404	12	Netherlands	4,384	12	Netherlands	5,292
13	Netherlands	39,401	13	Switzerland	4,183	13	Norway	4,569
14	Switzerland	27,130	14	Spain	4,070	14	India	4,112
15	Poland	23,947	15	Sweden	3,775	15	Taiwan	3,228
16	Brazil	22,758	16	Poland	3,773	16	Sweden	2,915
17	Sweden	20,671	17	Finland	3,617	17	South Korea	2,831
18	Norway	20,286	18	South Korea	3,072	18	Brazil	2,658
19	South Korea	17,501	19	Norway	2,935	19	Denmark	2,524
20	Belgium	15,960	20	Taiwan	2,828	20	New Zealand	2,287

Fig. 1. SJR top twenty countries over all regions w. r. t. the number of documents published during 1996-2014 in (a) Earth and Planetary Sciences and in its two categories (b) Atmospheric Science and (c) Oceanography




	Country	Documents
1	 China	216.902
2	 Japan	71.267
3	 India	42.404

Fig. 2. Top three countries w. r. t. the number of documents published during 1996-2014 in the SJR country rankings in the subject area Earth and Planetary Sciences over the Asiatic region

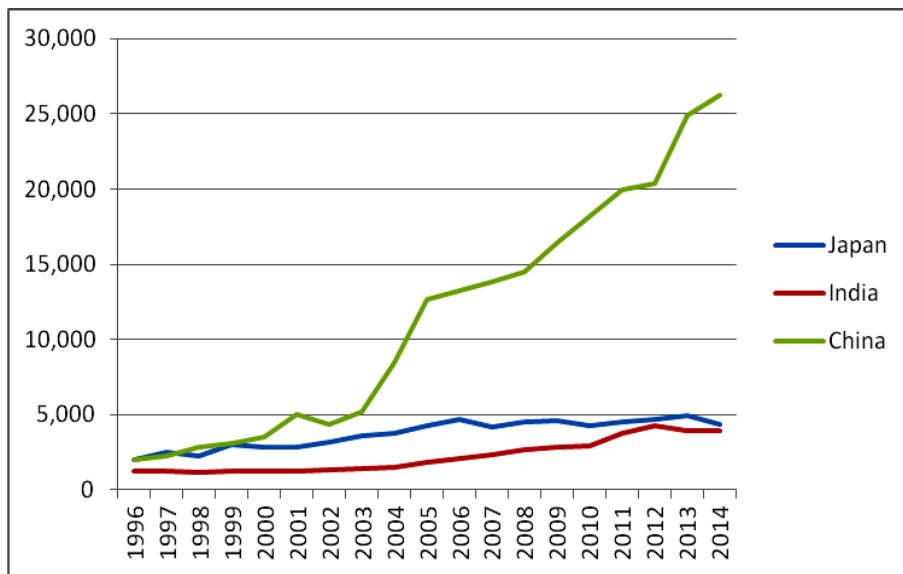


Fig. 3. Comparative growth of documents in earth and planetary sciences by China, Japan and India from 1996 to 2014

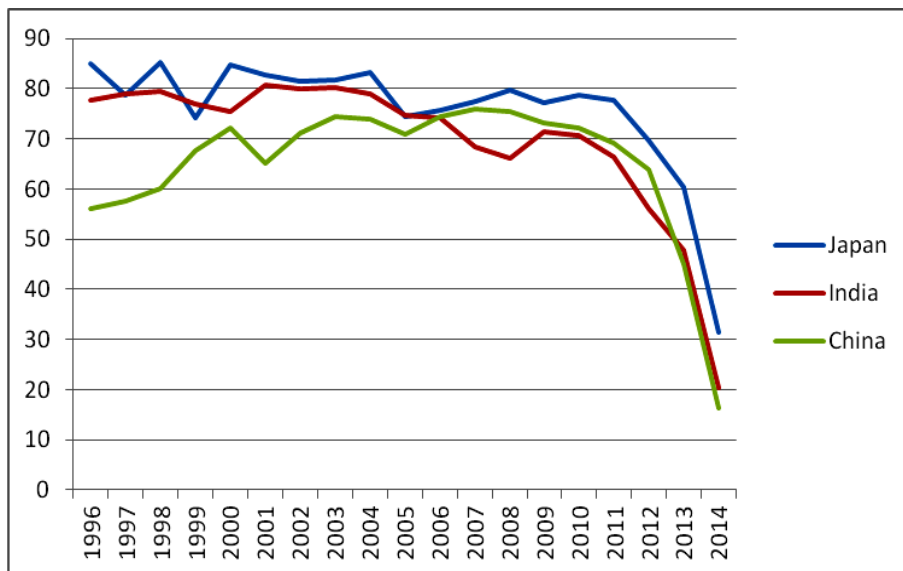


Fig. 4. Per cent cited documents in earth and planetary sciences for China, Japan and India

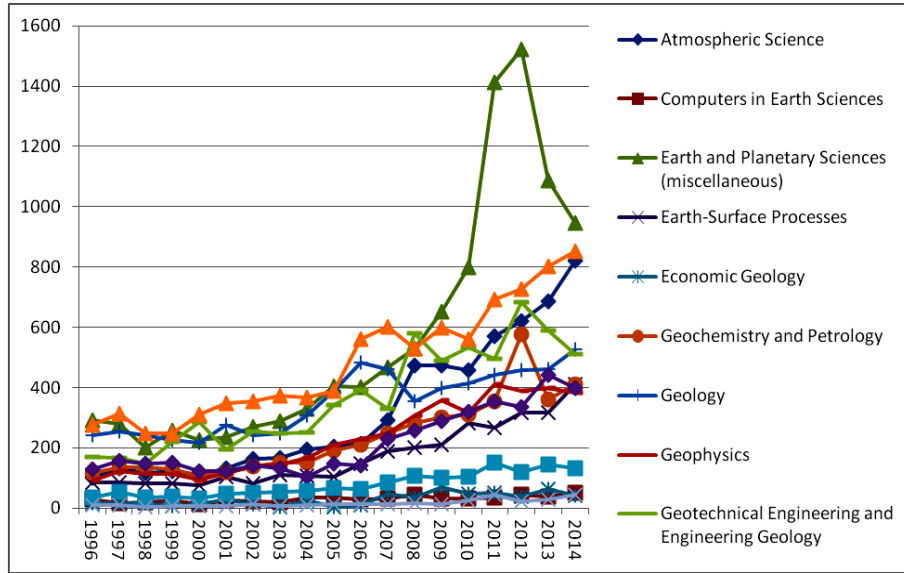


Fig. 5. Growth of documents in different subject categories in earth and planetary Sciences published by India

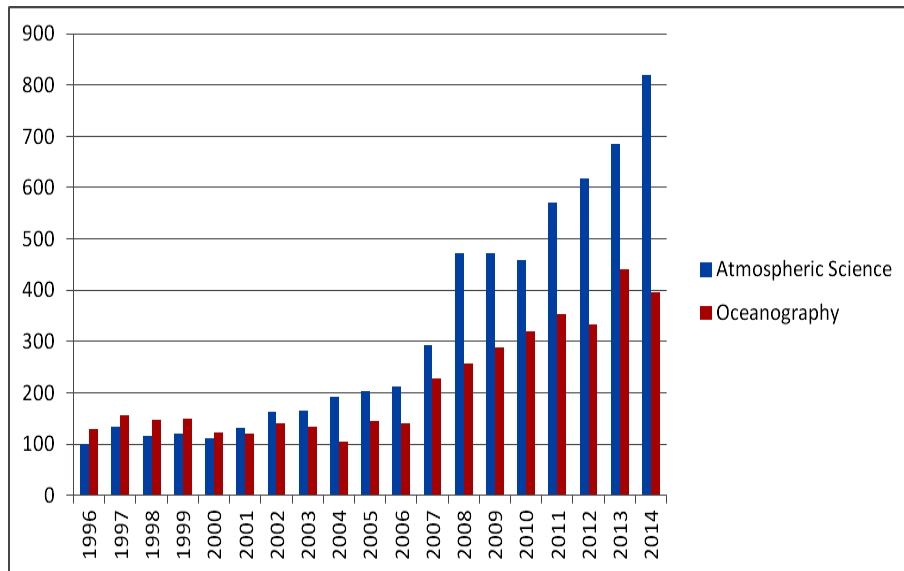


Fig. 6. Comparative growth of documents in Atmospheric Science and Oceanography published by India

top three performers in the Earth and Planetary Sciences are China, Japan and India during the period 1996-2014 (Fig. 2).

From the SJR portal, it is observed that documents published in EPS by China, Japan and India in 1996 were 1985, 2044 and 1281 respectively. In 2014, these numbers were 26216, 4359 and 3905 respectively. That is, in 1996, China published about 1.55 times more documents than India and Japan 1.60 times more. In 2014, China published about 6.71 times more documents than India and Japan 1.12 times more. From 1996 to 2014,

China, Japan and India show an increase in their documents in EPS by 1320.705%, 213.258% and 304.840% respectively. From Fig. 3, it is observable that in comparison to Japan and India, China shows an exponential increase in documents from 2003 onwards.

3. The per cent cited documents in EPS during 1996-2014 for these three Asian countries show almost (roughly) the similar trends (Fig. 4). Almost similar trends were found in categories of Atmospheric Science and Oceanography.

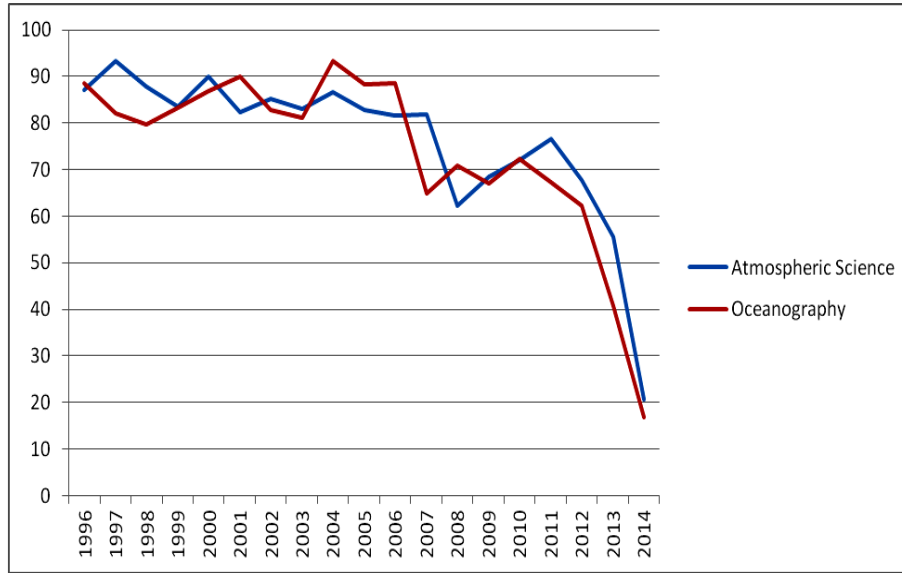


Fig. 7. Comparison of percent cited documents in Atmospheric Science and Oceanography published by India

Now, let's zoom in to India only and see the performance of different subject categories in EPS (Fig. 5). It is not in the scope of this article to discuss further the performance of different categories. It focuses only on Atmospheric Science and Oceanography (Fig. 6). It is important to mention here that research in Atmospheric Science and Oceanography in India started almost at the same time in the early 1960s. In 1996, India published 101 and 130 documents in Atmospheric Science and Oceanography respectively and in 2014, the numbers were 820 and 397 respectively. It shows that India published around 1.29 times more documents in Oceanography than in Atmospheric Science in 1996. But in 2014, this trend got totally reversed with more than double the documents in Atmospheric Science compared to Oceanography. Further, from 1996 to 2014, Atmospheric Science documents increased by 811.881% and Oceanography documents by 305.385%. That is, the percent increase in documents during 1996-2014 is 506.496% more in Atmospheric Science compared to

Oceanography. However, percent cited documents in Atmospheric Science and Oceanography (Fig. 7) do not show any significantly different trends.

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