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...
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.

<table>
<thead>
<tr>
<th>Country</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>216.902</td>
</tr>
<tr>
<td>Japan</td>
<td>71.267</td>
</tr>
<tr>
<td>India</td>
<td>42.404</td>
</tr>
</tbody>
</table>

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.
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.
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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