

China rockets to second in science publications (Update)

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The sun rises in Beijing. China has rocketed into second place in the number of articles published in international science magazines, according to a report released Monday by the Royal Society in London.

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While the top 10 is filled with major Western powers, their share of research papers published is falling, while nations such as China, Brazil and India are growing.

Also on the rise, but further behind, are Iran and Turkey.

China shot up from sixth place in the period 1999-2003 (4.4 percent of

the total) to second place behind the United States with 10.2 percent over the years 2004-08, overtaking Japan.

The United States remained in the top spot, but has seen its share shrink from 26.4 percent to 21.2 percent.

Britain remained third with its share at 6.5 percent, down from 7.1 percent.

Japan had slipped from second to fourth place, falling from 7.8 percent to 6.1 percent, said the report.

Germany, in fifth place, published six percent, down from seven percent, while France, in sixth, published 4.4 percent, down from five percent.

They were followed by Canada, Italy, Spain and India, which pushed Russia out of the top 10, moving up from 13th position.

"China's rise up the rankings has been especially striking," said the report.

"China has heavily increased its investment in R&D (research and development), with spending growing by 20 percent per year since 1999 to reach over \$100 billion a year today," it continued.

That came to 1.44 percent of the country's GDP in 2007), it added.

"China is also turning out huge numbers of science and engineering graduates, with 1.5 million leaving its universities in 2006," the report added.

While Britain's share of articles published was down, the Royal Society

last week welcomed British finance minister George Osborne's promise of another £100 million (114 million euros, \$160 million) of capital investment in science.

Turkey's improved scientific performance had been almost as dramatic as China's, the report said, noting that it had declared research a public priority in the 1990s.

The country had increased its research and development nearly six-fold between 1995 and 2007, and during the same period, the number of researchers there had increased by 43 percent.

Iran was the fastest-growing country in terms of numbers of scientific publications, rising from 736 in 1996 to 13,238 in 2008.

"The scientific world is changing and new players are fast appearing," said Chris Llewellyn Smith, who chaired the study at the Royal Society, Britain's national science academy.

"Beyond the emergence of China, we see the rise of southeast Asian, Middle Eastern, north African and other nations.

"The increase in scientific research and collaboration, which can help us to find solutions to the global challenges we now face, is very welcome.

"However, no historically dominant nation can afford to rest on its laurels if it wants to retain the competitive economic advantage that being a scientific leader brings."

The Royal Society's findings were published in its report entitled "Knowledge, networks and nations: Global scientific collaboration in the 21st century".

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