The Rise of Geosciences in Asia: Challenges and Opportunities for Scientific Integrity

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The world’s scientific research hub has been steadily shifting eastwards over the past two decades. Annual R&D spending for the so called Asia-8 economies (China, India, Japan, Malaysia, Singapore, South Korea, Taiwan and Thailand) overtook the EU in the mid-2000s. In the 13th five-year plan (2016-20), China committed to increase R&D spending by 35% by 2020. In a demographic shift, the number of students from Asian countries in postgraduate education in science and engineering (both domestically and overseas) has grown rapidly. Other metrics of research productivity, such as journal publication output, show very rapid growth from Asia and from China in particular. While the big picture is encouraging, the burgeoning growth of science output from Asia imposes constraints on governance systems such as peer review and ethical oversight. Asia is also a continent of diversity with a variety of national guidelines on scientific integrity, uneven access to resources between and within countries and keen competition to raise the profile of universities within league tables. Within this context, Asia Oceania Geosciences Society was founded in 2003 to promote the application of geosciences for the benefit of humanity. In a region where natural hazards are prevalent, encouraging the sharing of understanding of risk management through scientific, social and technological means is important. The challenges of scientific integrity are manifest in this diverse and rapidly growing sector but so too are the opportunities for harnessing research to benefit society.