OVER ART: ALISDAIR MACDONAL

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ASIA-PACIFIC

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he Asia-Pacific region accounts for more than a quarter of the publications in the Nature Index, and some individual countries are scientific heavy-hitters. China trails only the United States in the total number of science papers published in 2014. Japan, South Korea, Australia, India, Singapore and Taiwan are among the world's top-20. Most of these top performers in the region are adopting policies that should ensure they retain their high standing in the research world. But how will their science policies and budget plans determine the quantity and quality of research in the years to come?

China, for example, has been increasing research spending over the past decade and the financial input has already yielded results. For example, the Chinese Academy of Science (CAS) leads the Nature Index in three of the four publishing categories: earth and environmental sciences; chemistry; and physical sciences. In chemistry, CAS published three times more than the second-placed French National Centre for Scientific Research (CNRS).

But other countries in the region have more uncertain futures. In Japan, for example, commentators warn that significant government funding and policy reforms are needed to keep the country at the top end of science and technology.

Likewise, many scientists in India hoped for more favourable science and technology policies after the election of Prime Minister Narendra Modi. They were disappointed when the increase in research spending in his first budget did not even keep up with inflation. It remains to be seen if Modi's election platform will translate into results.

For some countries in this index, success comes through specialized forms of research. For instance, almost half of South Korea's published articles are in physical sciences. In India, about half of the articles explore topics in chemistry. New Zealand, on the other hand, publishes across a much broader range of topics.

As well as looking at the countries individually, this index examines the interaction among them. In particular, we analyse data on collaborations both within and outside the Asia-Pacific. The results show that scientists in the Asia-Pacific team up more often with researchers in other parts of the world than with those in their home region.

The revealing Nature Index dataset provides many ways to examine and explore science and technology in the Asia-Pacific. It's a resource that depicts the existing landscape of science and technology research, and also foreshadows changes that might lie ahead.

Mike May Guest Editor

Herb BrodySupplements Editor

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Nature Editorial Offices The Macmillan Building 4 Crinan Street, London N1 9XW, UK Tel: +44 (0)20 7833 4000 Fax: +44 (0)20 7843 4596/7

CONTENTS

S52 OVERVIEW

A region's achievements in graphics

S54 CHINA

Sustained spending signals ambition to lead the world

S56 JAPAN

Systemic woes challenge region's traditional leader

S62 SOUTH KOREA

Top education sytem needs to yield more basic research

S64 AUSTRALIA

Hampered by political apathy, scientists look outward

SGG INDIA

Hopes shaken by funding shortfalls as industry steps in

S70 ASIAN TIGERS, PACIFIC PANTHERS Singapore belies its size as region's minnows impress

S75 A GUIDE TO THE NATURE INDEX
How to get the most out of the Nature

S78 TOP INSTITUTIONAL CONTRIBUTORS

S82 TOP INSTITUTIONAL CONTRIBUTORS BY SUBJECT AREA

S86 TOP INSTITUTIONAL CONTRIBUTORS BY JOURNAL

EDITORIAL: Herb Brody, Michelle Grayson, Mike May, Rebecca Dargie, Victoria Kitchener. EDITORIAL SUPPORT: Nobuko Miyairi, Larissa Kogleck. ART & DESIGN: Wesley Fernandes, Alisdair Macdonald, Kate Duncan, Chris Gilloch. WEB & DATA: Bob Edenbach, Olivier Lechevalier, Yuxin Wang, Naomi Nakahara, Masamichi Wada, Jyoti Miglani, Akiko Murakami, Takeshi Ouchi, Maxime Fontaine, Jennie Pao, Jörn Ishikawa. PRODUCTION: Sue Gray, Karl Smart, Ian Pope, Robert Sullivan, Chandler Gibbons. MARKETING: Hannah Phipps. SALES: Yuki Fujiwara, Janet Cen. PROJECT MANAGER: Anastasia Panoutsou. ART DIRECTOR: Kelly Buckheit Krause. PUBLISHING: Nick Campbell, Richard Hughes, David Swinbanks.

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