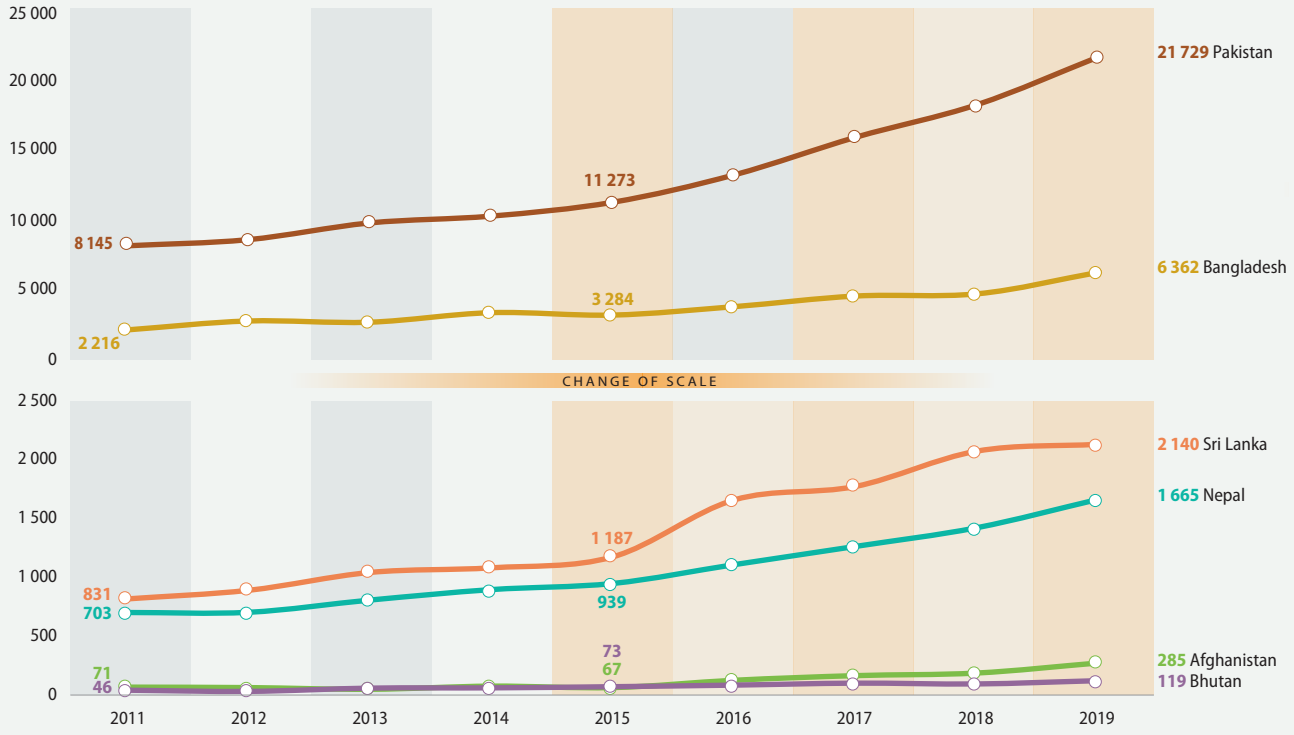
Figure 21.4: **Trends in scientific publishing in South Asia**

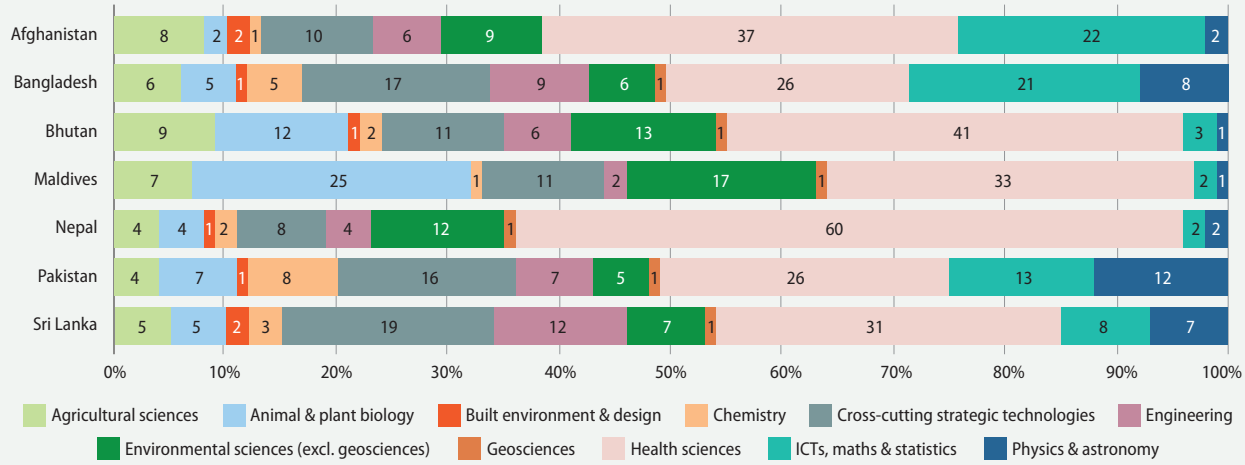
Volume of scientific publications in South Asia, 2011–2019

For countries with more than 100 publications in 2019

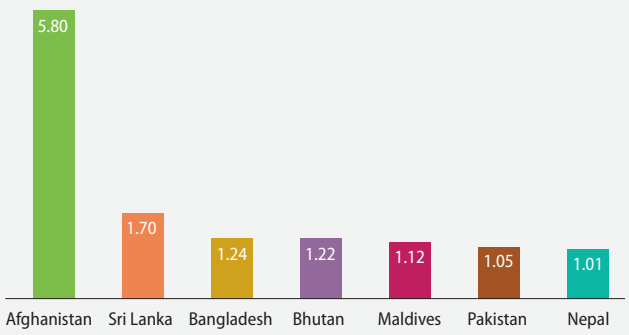


Note: Output by the Maldives peaked at 36 publications in 2019, up from 23 in 2015.

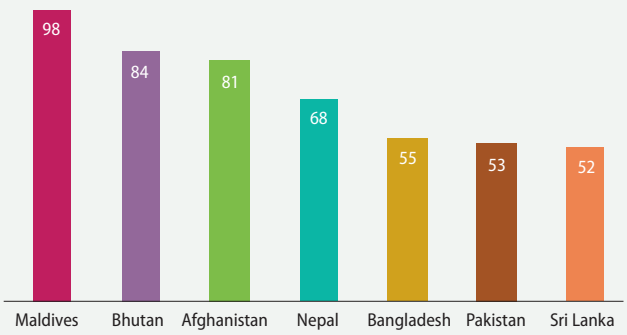
Scientific publications in South Asia by broad field of science, 2017–2019 (%)



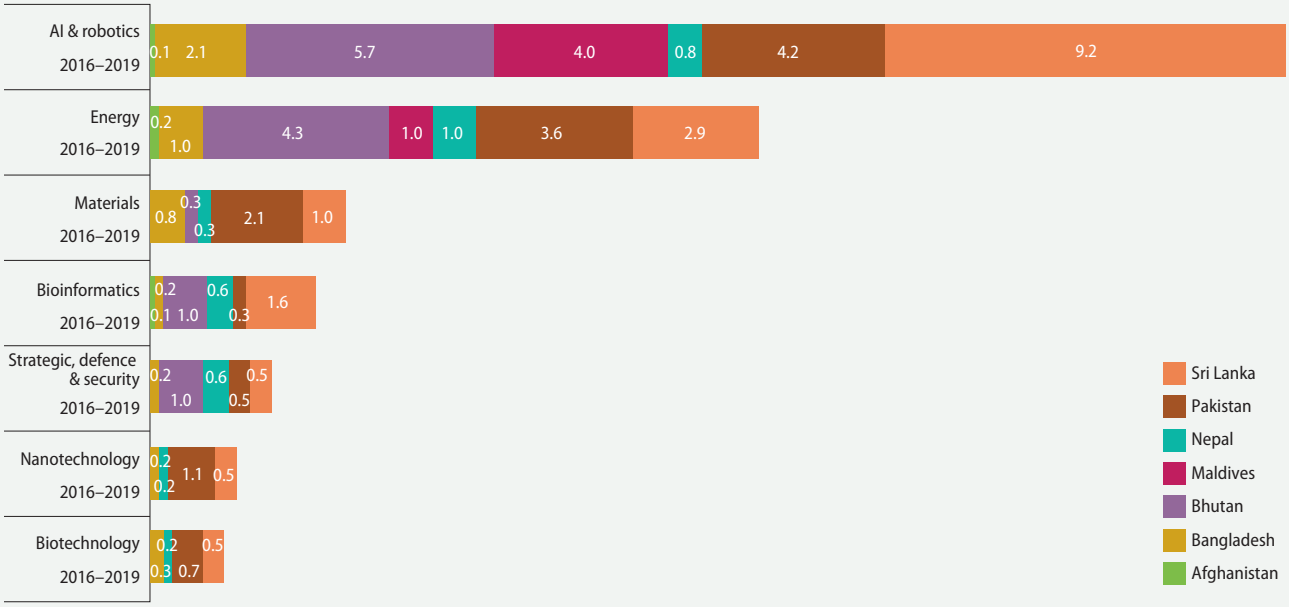
Average of relative citations for South Asia, 2014–2016



Share of publications with foreign co-authors in South Asia, 2017–2019 (%)



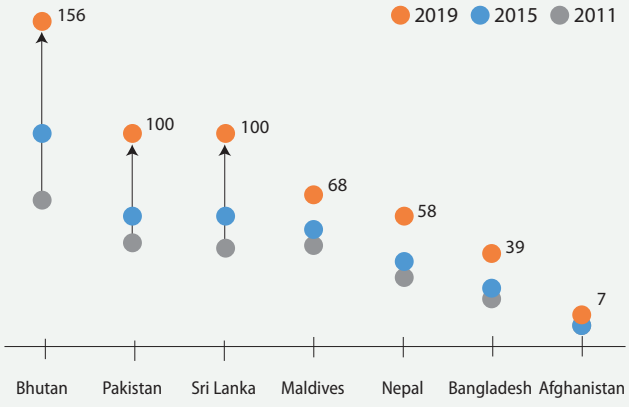
Scientific publications in South Asia per million inhabitants, by cross-cutting strategic technology, 2016–2019



Note: The length of the stacked bar does not reflect total regional output, owing to potential co-authorship among countries.

Scientific publications per million inhabitants in South Asia, 2011, 2015 and 2019

Data labels are for 2019



How has output on SDG-related topics evolved since 2012?

South Asian scientists (excluding India) published more on the following topics than would be expected, relative to global averages: tropical communicable diseases, sustainable use of terrestrial ecosystems, traditional knowledge, help for smallholder food producers, agro-ecology and the genetic diversity of food crops. The volume of publications on the sustainable use of terrestrial ecosystems at least doubled between 2012–2015 and 2016–2019 in Bhutan, Nepal and Sri Lanka.

Although clean energy is not yet a major specialization, output on several energy topics more than doubled in Bangladesh, Pakistan and Sri Lanka during the period under study, with Pakistan showing the most striking increase from 147 (2012–2015) to 756 (2016–2019) publications on smart-grid technologies.

Pakistani output on eco-industrial waste management also shot up from 132 (2012–2015) to 412 (2016–2019) publications, triple the average proportion of research in this field.

Researchers in Bangladesh are beginning to specialize in climate research, including as concerns disaster risk reduction, its impact on local communities and technologies to mitigate the same, with output doubling in each of these fields, albeit from low starting points.

For details, see chapter 2

Top five partners for scientific co-authorship, 2017–2019 (number of papers)

	1st collaborator	2nd collaborator	3rd collaborator	4th collaborator(s)	5th collaborator
Afghanistan	USA (151)	Japan (94)	Pakistan (82)	India/UK (68)	
Bangladesh	USA (2 132)	Japan (1 513)	Australia (1 505)	Malaysia (1 070)	UK (1 059)
Bhutan	Australia (83)	USA (80)	India (67)	Thailand (46)	Nepal/UK (41)
Maldives	India (30)	UK (22)	Italy (21)	Australia (16)	Nepal (12)
Nepal	USA (932)	India (650)	UK (531)	China (415)	Australia (357)
Pakistan	China (9 216)	Saudi Arabia (5 691)	USA (4 674)	UK (3 444)	Malaysia (3 179)
Sri Lanka	USA (946)	UK (880)	Australia (831)	India (599)	China (577)

Source: Scopus (excluding Arts, Humanities and Social Sciences); data treatment by Science-Metrix