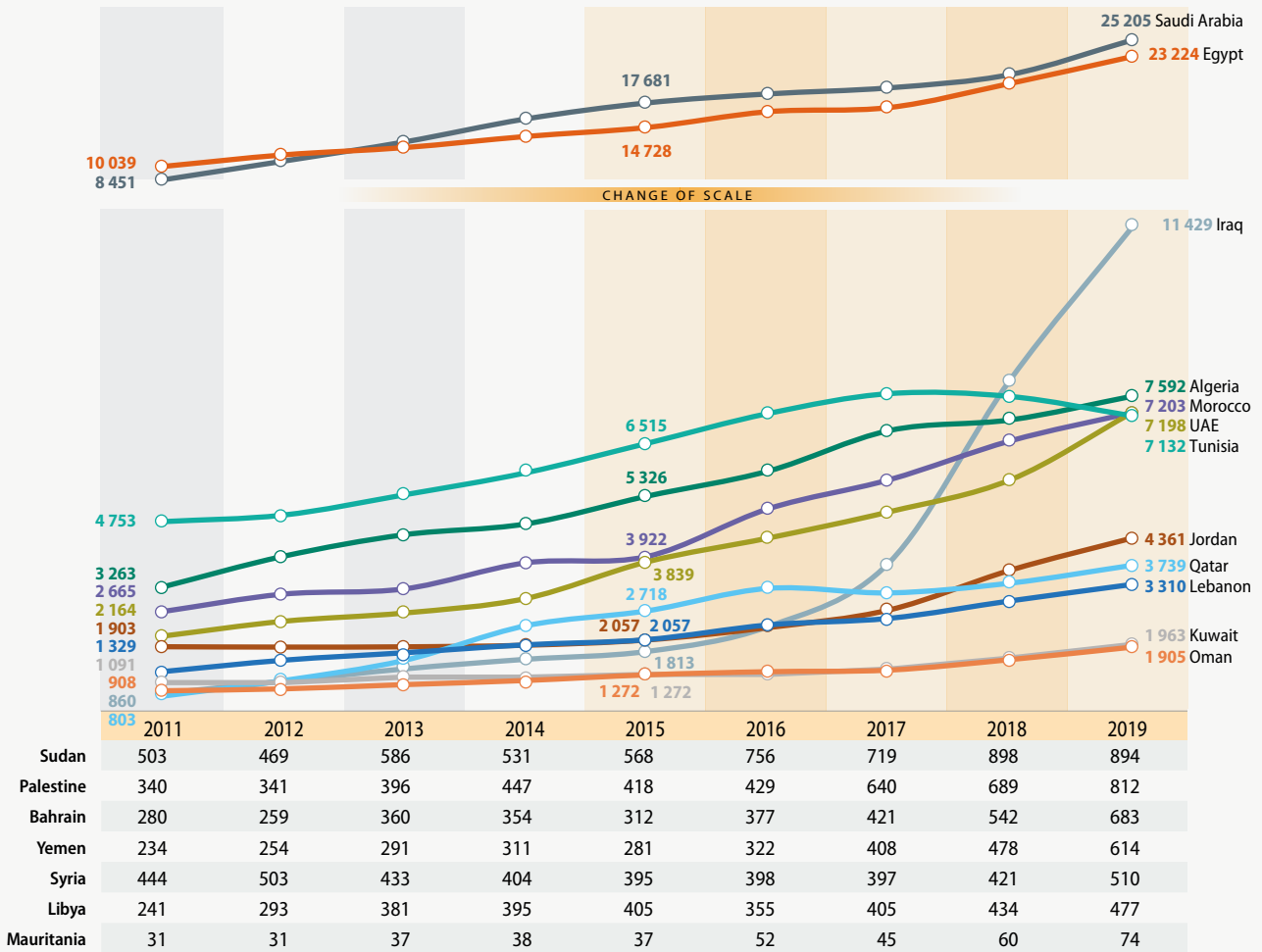


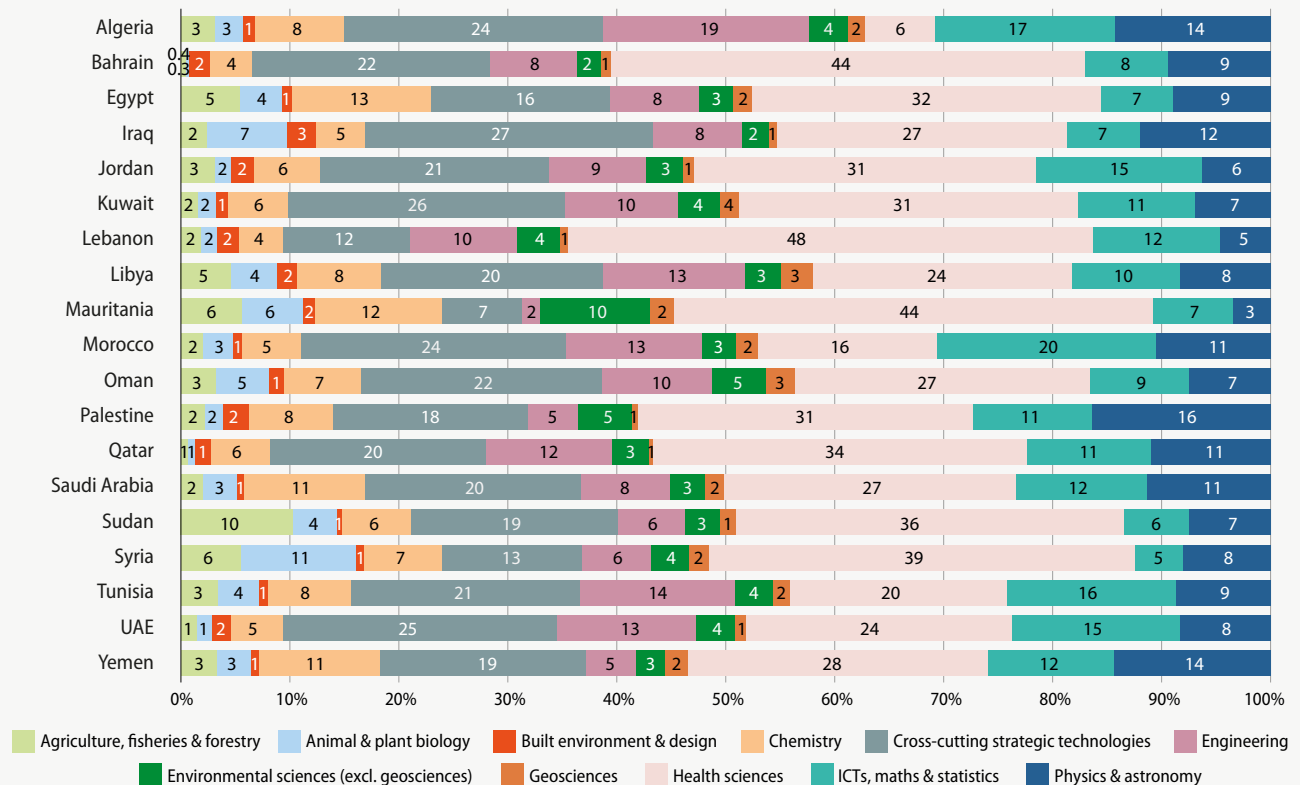


Figure 17.4: Trends in scientific publishing in the Arab States

Volume of scientific publications in the Arab States, 2011–2019



Scientific publications in the Arab States by broad field of science, 2017–2019 (%)





Volume of scientific publications from Arab States

95 817
in 2019



58 447
in 2015

64%
Cumulative growth rate for Arab publications, 2015–2019

1.06
Average of relative citations in the Arab States, 2014–2016; the G20 average is 1.02

54%
Average share of papers with foreign co-authors in the Arab States, 2017–2019; the G20 average is 25%

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

Arab countries are publishing more on the following topics than would be expected, relative to global averages: desalination; wind-turbine technologies; water harvesting; photovoltaics; wastewater treatment, recycling and re-use; human resistance to antibiotics; sustainable withdrawal and supply of freshwater; eco-industrial waste management; eco-construction materials; smart-grid technologies; and national integrated water resources management.

The region published nearly four times the global average intensity on desalination, with output surging from 1 468 (2012–2015) to 2 218 (2016–2019) publications. Qatar’s output doubled from 90 to 202 publications and Egypt’s output rose from 270 to 462 publications. Saudi Arabia contributed about 30% of regional output on this topic.

Regional publications on photovoltaics doubled from 2 208 to 4 537 over the same period. Regional output doubled on other energy-related topics, such as sustainable transportation, smart-grid technologies, battery efficiency and biofuels and biomass. Climate-ready crops were another growth area.

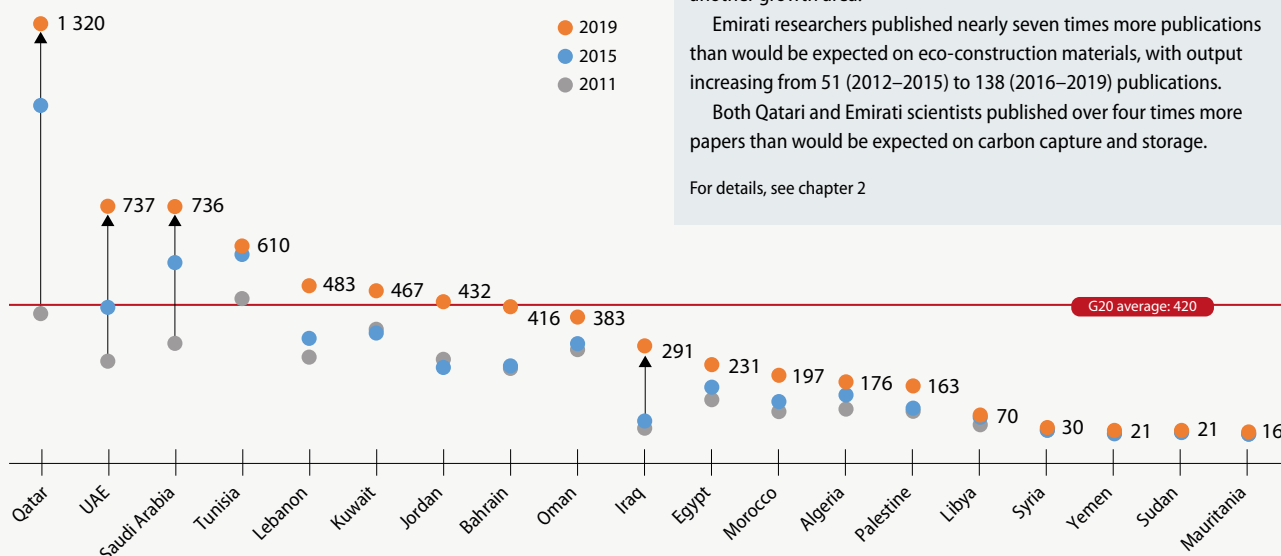
Emirati researchers published nearly seven times more publications than would be expected on eco-construction materials, with output increasing from 51 (2012–2015) to 138 (2016–2019) publications.

Both Qatari and Emirati scientists published over four times more papers than would be expected on carbon capture and storage.

For details, see chapter 2

Scientific publications per million inhabitants in the Arab States, 2011, 2015 and 2019

Data labels are for 2019



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

	1st collaborator	2nd collaborator	3rd collaborator	4th collaborator	5th collaborator
Algeria	France (5 153)	Saudi Arabia (980)	Spain (870)	Italy (678)	USA (578)
Bahrain	Saudi Arabia (241)	Egypt (171)	USA (169)	UK (123)	India (119)
Egypt	Saudi Arabia (11 523)	USA (6 151)	Germany (3 193)	China (3 074)	UK (2 865)
Iraq	Malaysia (2 116)	UK (1 812)	USA (1 174)	Australia (785)	Iran (717)
Jordan	USA (1 549)	Saudi Arabia (1 025)	UK (664)	UAE (617)	Germany (539)
Kuwait	USA (890)	Egypt (465)	Saudi Arabia (435)	UK (407)	Iran (273)
Lebanon	France (2 476)	USA (1 773)	UK (574)	Canada (519)	Italy (496)
Libya	UK (236)	Malaysia (216)	Egypt (185)	USA (123)	Saudi Arabia (100)
Mauritania	France (68)	Senegal (51)	Morocco (37)	Tunisia (25)	UK (24)
Morocco	France (3 388)	Spain (1 133)	USA (1 059)	Italy (756)	Canada (746)
Oman	India (733)	UK (473)	Pakistan (444)	USA (438)	Saudi Arabia (410)
Palestine	USA (329)	Turkey (285)	Malaysia (270)	UK (265)	Germany (256)
Qatar	USA (2 895)	UK (1 627)	China (1 195)	Australia (828)	Italy (822)
Saudi Arabia	Egypt (11 523)	USA (9 023)	China (6 118)	India (5 856)	Pakistan (5 691)
Sudan	Saudi Arabia (609)	China (454)	UK (236)	Malaysia (216)	USA (215)
Syria	USA (105)	France (85)	Germany (77)	UK (72)	China (63)
Tunisia	France (5 701)	Saudi Arabia (2 358)	Spain (1 074)	Italy (912)	USA (658)
UAE	USA (3 451)	UK (1 782)	Canada (1 421)	Saudi Arabia (1 253)	China (1 161)
Yemen	Saudi Arabia (505)	Egypt (410)	Malaysia (353)	India (132)	USA (113)

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