

PREQIN SPECIAL REPORT: THE NATURAL RESOURCES TOP 100

AUGUST 2017



FOREWORD

The natural resources fundraising landscape remained strong over H1 2017: \$34bn was secured by vehicles reaching a final close, exactly half the amount of capital raised in 2016. However, with just 35 funds reaching a final close in H1 2017, compared to 99 closed in H1 2016, investor capital has become more concentrated across fewer and generally more established fund managers. This is illustrative of the challenging environment that natural resources firms face when attempting to raise vehicles, a trend highlighted by the top five funds closed this year to date (as at July 2017) accounting for 72% of total capital raised.

With the objective of providing greater insight into the most influential industry players, Preqin is pleased to provide for the first time a comprehensive ranking of the top 100 fund managers and institutional investors within the asset class, taken from Preqin's **Natural Resources Online**.

While the natural resources industry has faced numerous challenges over recent years, it is poised for future growth: the 100 largest institutional investors currently have a combined \$115bn invested in the asset class. These investors are the main driver behind the prominence of the largest fund managers, as they require the recipients to be of sufficient scale to successfully deploy increasingly large commitments. The top 100 natural resources fund managers have raised \$451bn in capital over the last 10 years, equivalent to 79% of all natural resources fundraising in the same period.

For the purpose of this report, the fund manager rankings have been compiled based on the total value of natural resources funds raised by each manager in the last 10 years – including any capital raised by owned subsidiaries. Investor rankings only include institutional investors, and therefore exclude funds of funds. In addition to the full fundraising history of the top 100 fund managers and investment preferences of the top 100 investors, **Natural Resources Online** contains detailed information on more than 970 fund managers, 250 funds and more than 2,800 investors in the asset class.

We hope you find this report useful, and welcome any feedback you may have. For more information about Preqin and our **Natural Resources Online** database, please visit www.preqin.com or contact us at info@preqin.com.

NATURAL RESOURCES ONLINE

With global coverage across all strategies, including agriculture/farmland, energy (including oil & gas), metals & mining, timberland and water, Natural Resources Online is a vital source of intelligence for fund managers, investors, service providers and other professionals seeking to keep up to date with the latest developments in the industry.

For more information, please visit:

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THE TOP 100 FIRMS



\$451bn

Aggregate capital raised for unlisted natural resources funds by the top 100 fund managers in the past 10 years.



62

Number of natural resources fund managers based in the US, followed by nine in the UK.



\$143bn

Estimated dry powder available to the top 100 natural resources fund managers.

Top 100 Natural Resources Fund Managers by Location:

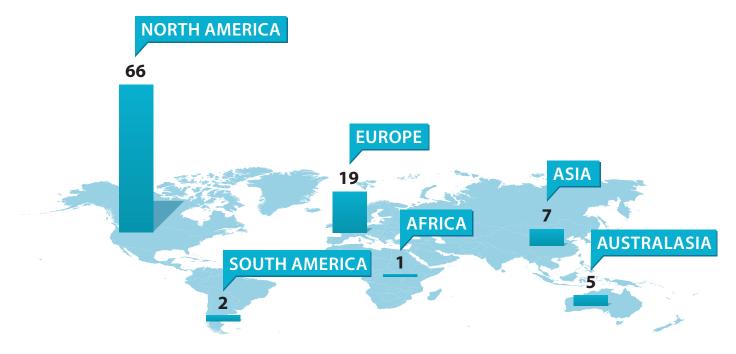
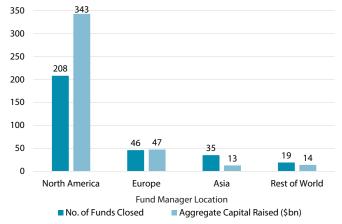
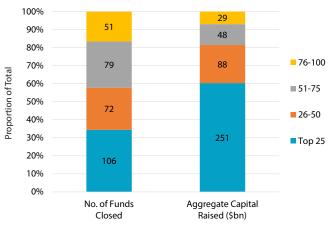


Fig. 1: Fundraising by the Top 100 Natural Resources Fund Managers in the Last 10 Years by Location



Source: Preqin Natural Resources Online

Fig. 2: Fundraising by the Top 100 Natural Resources Fund Managers in the Last 10 Years by Ranking



Source: Preqin Natural Resources Online



Top 100 Natural Resources Fund Managers by Capital Raised in the Last 10 Years* (1-50)

Rank	Firm	Headquarters	Aggregate Capital Raised in Last 10 Years (\$bn)	Dry Powder (\$bn)
1	EnCap Investments	Houston, US	27.6	12.0
2	Global Infrastructure Partners	New York, US	26.1	12.6
3	Riverstone Holdings	New York, US	24.9	4.4
4	Brookfield Asset Management	Toronto, Canada	17.6	11.6
5	EIG Global Energy Partners	Washington, US	13.2	2.0
6	NGP Energy Capital Management	Irving, US	12.9	2.2
7	First Reserve Corporation	Greenwich, US	12.8	2.8
8	ArcLight Capital Partners	Boston, US	11.0	2.4
9	Energy & Minerals Group	Dallas, US	10.9	1.2
10	Energy Capital Partners	Short Hills, US	10.2	2.3
11	Carlyle Group	Washington, US	9.7	5.0
12	Macquarie Group	London, UK	8.0	3.4
=	Quantum Energy Partners	Houston, US	8.0	3.0
14	BlackRock Capital Partners	Plainsboro, US	7.7	3.7
15	Morgan Stanley Infrastructure	New York, US	7.6	2.6
16	Alinda Capital Partners	Greenwich, US	7.4	0.2
17	Blackstone Group	New York, US	6.9	3.8
18	EnerVest	Houston, US	6.8	0.0
19	KKR	New York, US	6.3	2.4
20	Kayne Anderson Capital Advisors	Los Angeles, US	6.0	2.5
21	Apollo Global Management	New York, US	5.7	2.3
=	Denham Capital Management	Boston, US	5.7	0.6
23	WL Ross & Co	New York, US	5.6	0.5
24	Avista Capital Partners	New York, US	5.2	0.0
=	LS Power Group	New York, US	5.2	1.1
=	Stonepeak Infrastructure Partners	New York, US	5.2	1.7
27	Nuveen	New York, US	5.1	1.5
28	Actis	London, UK	4.7	3.1
=	GS Infrastructure Investment Group	New York, US	4.7	2.0
=	Lime Rock Partners	Westport, US	4.7	0.8
31	HitecVision	Stavanger, Norway	4.6	1.5
=	Sheridan Production Partners	Houston, US	4.6	0.9
33	Orion Resource Partners	New York, US	4.0	1.1
=	Partners Group	Baar-Zug, Switzerland	4.0	1.6
=	Warburg Pincus	New York, US	4.0	2.4
36	Pine Brook Partners	New York, US	3.9	0.7
=	Yorktown Partners	New York, US	3.9	0.5
38	Ares EIF Management	Los Angeles, US	3.7	0.7
=	Deutsche Asset Management	London, UK	3.7	0.7
=	DIF	Schiphol, Netherlands	3.7	1.0
=	F2i SGR	Milan, Italy	3.7	1.0
42	Trilantic Capital Partners	New York, US	3.6	1.2
43	KDB Infrastructure Investments Asset Management	Seoul, South Korea	3.5	0.7
=	Merit Energy Partners	Dallas, US	3.5	0.9
45	AMP Capital Investors	Sydney, Australia	3.4	1.0
46	Ridgewood Energy	Montvale, US	3.2	1.7
47	GSO Capital Partners	New York, US	3.1	2.3
=	Resource Capital Funds	Denver, US	3.1	0.3
49	I Squared Capital	New York, US	3.0	1.2
50	ARC Financial Corp.	Calgary, Canada	2.9	0.9
50				0.5

 $^{{\}it *Excludes separate accounts.}$

Top 100 Natural Resources Fund Managers by Capital Raised in the Last 10 Years* (51-100)

Rank	Firm	Headquarters	Aggregate Capital Raised in Last 10 Years (\$bn)	Dry Powder (\$bn)
=	Ardian	Paris, France	2.9	1.7
=	Patria Infrastructure	São Paulo, Brazil	2.9	1.3
53	Energy Spectrum Capital	Dallas, US	2.8	1.1
54	Equis	Singapore	2.4	0.8
=	Tenaska Capital Management	Omaha, US	2.4	0.2
56	Starwood Energy Group Global	Greenwich, US	2.3	1.1
57	Copenhagen Infrastructure Partners	Copenhagen, Denmark	2.2	1.0
=	KB Asset Management	Seoul, South Korea	2.2	0.6
=	White Deer Energy	Houston, US	2.2	0.5
60	InfraVia Capital Partners	Paris, France	2.1	0.8
=	Paine Schwartz Partners	New York, US	2.1	0.4
=	Proterra Investment Partners	Minneapolis, US	2.1	0.6
=	Sentient Group	Grand Cayman, Cayman Islands	2.1	0.2
64	Chambers Energy Capital	Houston, US	2.0	0.7
=	Commonfund Capital	Wilton, US	2.0	0.7
=	Oaktree Capital Management	Los Angeles, US	2.0	0.0
67	AMERRA	New York, US	1.9	0.1
=	Waterton Global Resource Management	Toronto, Canada	1.9	0.9
69	New Forests	Sydney, Australia	1.8	0.6
=	QIC Global Infrastructure	Brisbane, Australia	1.8	1.4
=	Stafford Timberland	London, UK	1.8	0.4
72	Blue Water Energy	London, UK	1.7	1.0
=	Kerogen Capital	Hong Kong	1.7	0.6
74	CGN Private Equity Fund Management	Futian District, China	1.6	0.3
=	Hancock Natural Resource Group	Boston, US	1.6	0.3
=	Modal Private Equity	Rio de Janeiro, Brazil	1.6	0.1
77	EMR Capital	Melbourne, Australia	1.5	0.9
=	KGAL Real Investments	Gruenwald, Germany	1.5	0.3
79	Hudson Clean Energy Partners	Teaneck, US	1.4	0.0
=	Post Oak Energy Capital	Houston, US	1.4	0.6
=	Tailwater Capital	Dallas, US	1.4	0.7
82	EQ Partners	Seoul, South Korea	1.3	0.2
=	La Banque Postale Asset Management	Paris, France	1.3	0.3
=	McMorgan & Company	San Francisco, US	1.3	0.7
=	Molpus Woodlands Group	Jackson, US	1.3	0.2
=	NCH Capital	New York, US	1.3	0.1
=	Old Ironsides Energy	Boston, US	1.3	0.7
=	Pamodzi Investment	Melrose North, South Africa	1.3	0.0
=	UBS Infrastructure Asset Management	Zurich, Switzerland	1.3	0.7
=	UK Green Investment Bank	Edinburgh, UK	1.3	0.8
91	AlphaOne Partners	London, UK	1.2	0.2
=	Glennmont Partners	London, UK	1.2	0.2
=	Global Forest Partners	Lebanon, US	1.2	0.3
=	Intervale Capital	Cambridge, US	1.2	0.3
=	Northleaf Capital Partners	Toronto, Canada	1.2	0.9
=	Taurus Fund Management	Sydney, Australia	1.2	0.4
=	Teays River Investments	Zionsville, US	1.2	0.0
98	Campbell Global	Portland, US	1.1	0.2
=	MEC Advisory	Hong Kong	1.1	0.3
=	SCF Partners	Houston, US	1.1	0.4
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Source: Preqin Natural Resources Online

^{*}Excludes separate accounts.





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THE TOP 100 INSTITUTIONAL INVESTORS



\$115bn

Aggregate capital invested in natural resources by the top 100 investors.



72

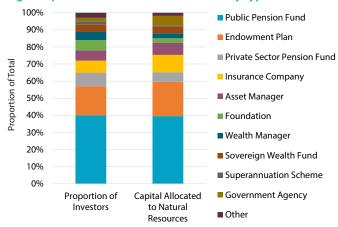
Number of top 100 investors that are based in the US.



7.35%

Mean current allocation to natural resources of the top 100 investors (as a % of AUM).

Fig. 3: Top 100 Natural Resources Investors by Type



Source: Preqin Natural Resources Online

Top 100 Natural Resources Investors by Location:

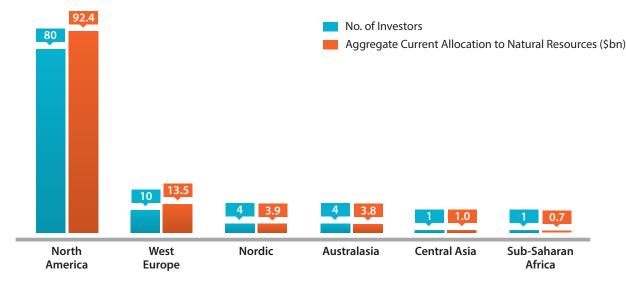
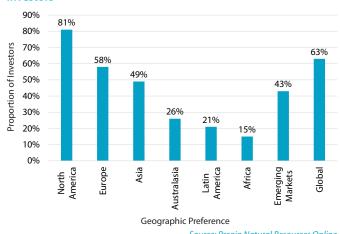
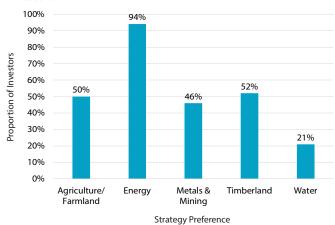


Fig. 4: Geographic Preferences of the Top 100 Natural Resources Investors



Source: Preqin Natural Resources Online

Fig. 5: Strategy Preferences of the Top 100 Natural Resources Investors



Course Door'

Source: Preqin Natural Resources Online



Top 100 Investors in Natural Resources by Current Allocation (1-40)

Rank	Investor	Туре	Headquarters	Assets under Management (\$bn)	Current Allocation to Natural Resources (\$mn)
1	Manulife Financial	Insurance Company	Toronto, Canada	328.2	7,197
2	Department for International Development	Government Agency	London, UK	11.1	5,158
3	University of Texas Investment Management Company	Endowment Plan	Austin, US	40.3	4,978
4	Harvard Management Company	Endowment Plan	Boston, US	36.0	4,644
5	Ontario Teachers' Pension Plan	Public Pension Fund	Toronto, Canada	127.2	4,637
6	TIAA	Private Sector Pension Fund	New York, US	938.0	3,722
7	Princeton University Investment Company (Princo)	Endowment Plan	Princeton, US	21.7	3,625
8	Allianz Capital Partners	Asset Manager	Munich, Germany	17.0	3,165
9	North Carolina Department of State Treasurer	Public Pension Fund	Raleigh, US	91.6	3,131
10	Teacher Retirement System of Texas	Public Pension Fund	Austin, US	137.9	2,781
11	Pennsylvania Public School Employees' Retirement System	Public Pension Fund	Harrisburg, US	51.4	2,729
12	Washington State Investment Board	Public Pension Fund	Olympia, US	89.3	2,524
13	Massachusetts Pension Reserves Investment Management Board	Public Pension Fund	Boston, US	64.4	2,448
14	Stanford Management Company	Endowment Plan	Stanford, US	29.1	2,301
15	Yale University Endowment	Endowment Plan	New Haven, US	25.4	2,007
16	California Public Employees' Retirement System (CalPERS)	Public Pension Fund	Sacramento, US	323.5	1,992
17	Minnesota State Board of Investment	Public Pension Fund	Saint Paul, US	85.3	1,858
18	Indiana Public Retirement System	Public Pension Fund	Indianapolis, US	30.5	1,822
19	Public Sector Pension Investment Board	Public Pension Fund	Montreal, Canada	84.4	1,807
20	CIGNA	Insurance Company	Bloomfield, US	27.3	1,800
21	Alaska Retirement Management Board	Public Pension Fund	Juneau, US	30.9	1,782
22	Texas Permanent School Fund General Land Office	Sovereign Wealth Fund	Austin, US	5.0	1,650
23	Utah State Retirement Systems	Public Pension Fund	Salt Lake City, US	28.6	1,550
24	Sampension	Public Pension Fund	Hellerup, Denmark	38.5	1,541
25	QIC	Asset Manager	Brisbane, Australia	59.1	1,441
26	New Zealand Superannuation Fund	Sovereign Wealth Fund	Auckland, New Zealand	23.7	1,423
27	BHF Bank	Wealth Manager	Frankfurt, Germany	45.2	1,356
28	Oklahoma Teachers Retirement System	Public Pension Fund	Oklahoma City, US	16.1	1,304
29	Maryland State Retirement and Pension System	Public Pension Fund	Baltimore, US	47.6	1,295
30	Florida State Board of Administration	Public Pension Fund	Tallahassee, US	190.6	1,222
31	Norfund	Government Agency	Oslo, Norway	2.0	1,200
32	Eurasian Development Bank	Bank	Almaty, Kazakhstan	3.0	1,041
33	British Columbia Investment Management Corporation	Asset Manager	Victoria, Canada	102.6	1,026
34	Insight Investment	Asset Manager	London, UK	704.9	910
35	South Carolina Retirement Systems	Public Pension Fund	Columbia, US	29.7	862
36	Prairie Capital Management	Asset Manager	Kansas City, US	8.5	850
37	State Teachers' Retirement System of Ohio	Public Pension Fund	Columbus, US	74.0	844
38	Mayo Clinic	Foundation	Rochester, US	14.0	840
39	Los Angeles Fire and Police Pension System	Public Pension Fund	Los Angeles, US	20.6	837
40	Liberty Mutual Insurance	Insurance Company	Boston, US	85.0	834

Top 100 Investors in Natural Resources by Current Allocation (41-80)

Rank	Investor	Туре	Headquarters	Assets under Management (\$bn)	Current Allocation to Natural Resources (\$mn)
41	Rathbone Investment Management	Wealth Manager	London, UK	41.3	825
42	J. Paul Getty Trust	Foundation	Los Angeles, US	6.4	731
43	Fundo Soberano de Angola	Sovereign Wealth Fund	Luanda, Angola	4.8	726
44	K2 Advisors	Investment Company	Stamford, US	10.5	700
=	University of Michigan Endowment	Endowment Plan	Ann Arbor, US	9.7	700
46	New Mexico State Investment Council	Sovereign Wealth Fund	Santa Fe, US	22.2	661
47	AC Investment Management	Asset Manager	New York, US	0.7	650
48	Lærernes Pension	Public Pension Fund	Hellerup, Denmark	13.4	643
49	Emory University Endowment	Endowment Plan	Atlanta, US	4.6	642
=	University of Pennsylvania Endowment	Endowment Plan	Philadelphia, US	10.7	642
51	Württembergische Insurance	Insurance Company	Stuttgart, Germany	42.1	632
52	New Mexico Public Employees' Retirement Association	Public Pension Fund	Santa Fe, US	14.8	622
53	Aegon Americas	Insurance Company	Cedar Rapids, US	95.0	600
54	Rice University Endowment	Endowment Plan	Houston, US	5.6	560
55	Ford Foundation	Foundation	New York, US	12.0	546
56	Intel Corporation Pension Plans	Private Sector Pension Fund	Folsom, US	10.7	535
57	AP-Fonden 1	Public Pension Fund	Stockholm, Sweden	35.1	502
58	University of Virginia Investment Management Company	Endowment Plan	Charlottesville, US	7.9	498
59	SunSuper	Superannuation Scheme	Sydney, Australia	27.5	483
60	Michigan Department of Treasury	Public Pension Fund	East Lansing, US	62.2	480
61	Arkansas Teacher Retirement System	Public Pension Fund	Little Rock, US	15.4	462
=	Lockheed Martin Pension Plan	Private Sector Pension Fund	Bethesda, US	33.9	462
63	University of Chicago Endowment	Endowment Plan	Chicago, US	7.0	460
64	W.K. Kellogg Foundation	Foundation	Battle Creek, US	9.1	457
65	ConAgra Foods Pension Plan	Private Sector Pension Fund	Chicago, US	3.0	456
66	Orange County Employees' Retirement System	Public Pension Fund	Santa Ana, US	14.3	454
67	Segall Bryant & Hamill	Wealth Manager	Chicago, US	10.1	443
68	Regents of the University of California	Public Pension Fund	Oakland, US	107.2	433
69	Maine Public Employees' Retirement System	Public Pension Fund	Augusta, US	13.1	432
70	HOSTPLUS	Superannuation Scheme	Melbourne, Australia	18.0	413
=	SCS Financial	Wealth Manager	Boston, US	16.5	413
72	APK Aargauische Pensionskasse	Private Sector Pension Fund	Aarau, Switzerland	9.6	412
73	Iowa Public Employees' Retirement System	Public Pension Fund	Des Moines, US	30.0	410
74	San Bernardino County Employees' Retirement Association	Public Pension Fund	San Bernardino, US	9.1	408
75	LAPP	Public Pension Fund	Edmonton, Canada	27.0	405
76	New Jersey State Investment Council	Public Pension Fund	Trenton, US	71.2	404
77	University of Southern California Endowment	Endowment Plan	Los Angeles, US	4.6	396
78	Cornell University Endowment	Endowment Plan	Ithaca, US	5.8	388
79	New Mexico Educational Retirement Board	Public Pension Fund	Santa Fe, US	12.1	379
80	IRR	Family Office - Single	Geneva, Switzerland	2.5	375



Top 100 Investors in Natural Resources by Current Allocation (81-100)

Rank	Investor	Туре	Headquarters	Assets under Management (\$bn)	Current Allocation to Natural Resources (\$mn)
=	San Diego County Employees Retirement Association	Public Pension Fund	San Diego, US	11.1	375
82	BC Municipal Pension Plan	Public Pension Fund	Victoria, Canada	31.4	369
83	Virginia Retirement System	Public Pension Fund	Richmond, US	69.9	357
84	Leona M. And Harry B. Helmsley Charitable Trust	Foundation	New York, US	5.3	353
85	Church Commissioners for England	Endowment Plan	London, UK	8.5	340
86	BC Public Service Pension Plan	Public Pension Fund	Victoria, Canada	21.1	338
87	Vanderbilt University Endowment	Endowment Plan	Nashville, US	4.0	327
88	Verizon Pension/Benefits	Private Sector Pension Fund	Basking Ridge, US	16.1	322
89	Board of Pensions of the Presbyterian Church	Private Sector Pension Fund	Philadelphia, US	8.2	320
90	Kansas Public Employees' Retirement System	Public Pension Fund	Topeka, US	17.6	314
91	Dartmouth College Endowment	Endowment Plan	Boston, US	4.5	313
92	Killik & Co	Wealth Manager	London, UK	6.2	312
93	CUNA Mutual Life Insurance	Insurance Company	Madison, US	14.0	300
94	Kentucky Teachers' Retirement System	Public Pension Fund	Frankfort, US	18.5	296
95	Argo Group	Insurance Company	Pembroke, Bermuda	6.6	290
96	Ohio State University Endowment	Endowment Plan	Columbus, US	4.1	287
97	Missouri State Employees' Retirement System	Public Pension Fund	Jefferson City, US	8.2	278
98	Dallas Employees' Retirement Fund	Public Pension Fund	Dallas, US	3.3	274
99	AT&T Pension Fund	Private Sector Pension Fund	Dallas, US	42.2	273
100	Kresge Foundation	Foundation	Troy, US	3.5	271

Source: Preqin Natural Resources Online

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AUGUST 2017

PREQIN

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