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### Evolving property rights in water and their impact on water allocation and reallocation

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## Chapter 6. Water property rights in investor-state contracts

### Appendix I. Overview of contracts included in analysis

Contract # and document code	Host country	Contract type	Government entity	Company name	Year	
<b>Mining contracts</b>						
1	1410	Burkina Faso	Concession Agreement	State of Burkina Faso	La Societe Roxgold Sanu SA	2015
2	837	Burundi	Concession Agreement	State of Burundi	Burundi Mining Metallurgy International (BMM International)	2013
3	691	Cameroon	Concession Agreement	Republic of Cameroon	Cam Iron S.A.	2012
4	3942	Chad	Cahier des Charges	Chadian State	Serdar Tchad Company	2016
5	4067	DRC	Concession Agreement	La Generale des Quares et ees Mines SA.	Evelyne Investissement Sau	2018
6	5057	Egypt	Exploration Permit/License [Model contract]	Egyptian Mineral Resource Authority	N.A.	2021
7	2791	Ghana	Concession Agreement	Government of The Republic of Ghana	XTRA Gold Mining Limited	2011
8	4822	Guinea	Exploitation Permit/License	The Republic of Guinea	Simandou-Sau	2020
9	834	Liberia	Concession Agreement	Government of The Republic of Liberia	Western Cluster Ltd; Sesa Goa Ltd; Bloom Fountain Ltd; Elenilto Minerals and Mining LLC.	2011
10	2136	Malawi	Concession Agreement	Government of The Republic of Malawi	Paladin (Africa) Limited; Paladin Energy Minerals NL	2007
11	1249	Mali	Concession Agreement	The Government of The Republic of Mali	La Société des Mines De Goukoto SA	2014
12	4100	Mauritania	Concession Agreement	Islamic Republic of Mauritania	La Société Mauritania Copper Mines	2009
13	952	Niger	Exploitation Permit/License	Republic of Niger	Areva NC	2009
14	2385	Senegal	Concession Agreement	Government of The Republic of Senegal	Mapathe Ndiouck Company (EMN)	2016
15	4024	Sierra Leone	Concession Agreement	Government of Sierra Leone	SierraMin Bauxite (SL) Ltd.	2017
16	4734	Togo	Exploration Permit/License	Togolese Republic	Jun Hao Mining (Togo) SA	2018
17	2490	Tunisia	Cahier des Charges	Tunisia	EL BENIA	2016

Contract # and document code	Host country	Contract type	Government entity	Company name	Year	
18	1680	Zambia	Concession Agreement	Government of The Republic of Zambia	Konkola Copper Mines Plc (KCM)	2000
19	4727	Afghanistan	Concession Agreement	Government of The Islamic Republic of Afghanistan	Natural Stone Company	2020
20	18	Mongolia	Concession Agreement	Government of Mongolia	Ivanhoe Mines Mongolia Inc LLC; Ivanhoe Mines Ltd; Rio Tinto International Holdings Ltd.	2009
21	2808	Papua New Guinea	Joint Venture Agreement	Papua New Guinea	Ramu Nickel Ltd. Orogen Minerals (Ramu) Ltd.	2000
22	73	Philippines	Production or Profit Sharing Agreement	Republic of the Philippines	Mt. Sinai mining exploration and development corporation	2011
<b>Petroleum contracts</b>						
23	758	Cameroon	Joint Venture Agreement	Societe Nationale Des Hydrocarbures (SNH)	Perenco Oil and Gas (Cameroon) Kosmos Energy Cameroon HC	2008
24	4209	Chad	Production or Profit Sharing Agreement	La République du Tchad	Ewaab Investors Ltd.	2019
25	4158	Congo	Production or Profit Sharing Agreement	The Societe Nationale des Petroles du Congo	Total E&P Congo	2019
26	5203	DRC	Production or Profit Sharing Agreement	the Democratic Republic of the Congo	Dominion Petroleum Congo Soco Exploration-Production RDC La Congolaise Des Hydrocarbures	2007
27	5155	Egypt	Concession agreement	Arab Republic of Egypt Egyptian Natural Gas Holding Company	IEOC Production B.V.; BP Exploration (Delta) Ltd.	2021
28	4074	Equatorial Guinea	Production or Profit Sharing Agreement [Model contract]	Republic of Equatorial Guinea Guinea Ecuatorial de Petróleos	N.A.	2017
29	2165	Ethiopia	Production or Profit Sharing Agreement [Model contract]	Federal Democratic Republic of Ethiopia	N.A.	2011

Appendixes

Contract # and document code	Host country	Contract type	Government entity	Company name	Year
30 2166	Ghana	Concession agreement	Government of The Republic of Ghana Ghana National Petroleum Corporation.	GNPC Exploration and Production Company Ltd; Eni Ghana Exploration and Production Ltd; Vitol Upstream Tano Ltd.; Woodfields Upstream Ltd.	2015
31 2143	Guinea	Production or Profit Sharing Agreement	Republic of Guinea	SCS Corporation	2006
32 2752	Côte d'Ivoire	Production or Profit Sharing Agreement	Republic of Cote D'Ivoire	BP Exploration Operating Company Ltd; Kosmos Energy Cote D'Ivoire; Petrochi Holding	2017
33 150	Kenya	Production or Profit Sharing Agreement	Republic of Kenya	ERHC AGC Profound LTD.	2012
34 2116	Liberia	Production or Profit Sharing Agreement [Model contract]	The Republic of Liberia by and through the National Oil Company of Liberia	N.A.	2004
35 1275	Libya	Exploration and Production Sharing Agreement	Joint Exploration Exploitation and Petroleum Services Company	Canadian Superior Energy Inc.	2008
36 4173	Madagascar	Production or Profit Sharing Agreement [Model contract]	The Office Of National Mines And Strategic Industries (OMNIS)	N.A.	2006
37 2584	Malawi	Production or Profit Sharing Agreement	Government of the Republic of Malawi	RAK Gas MB45 Ltd.	2014
38 4428	Mauritania	Production or Profit Sharing Agreement [Model contract]	République Islamique de Mauritanie	N.A.	2018
39 3975	Mozambique	Production or Profit Sharing Agreement	Government of Mozambique	Sasol Petroleum Mozambique Exploration Ltd Empresa Nacional de Hidrocarbonetos E.P.	2018
40 713	Nigeria	Production or Profit Sharing Agreement	Nigerian Petroleum Development Company Ltd.	Atlantic Energy Drilling Concepts Nigeria Limited	2011
41 2831	Senegal	Production or Profit Sharing Agreement	Republic of Senegal	Blackstairs Energy Senegal Limited Societe des Petroles du Senegal	2013

Contract # and document code	Host country	Contract type	Government entity	Company name	Year
42 2183	Sierra Leone	Concession agreement [Model Contract]	Government of the Republic of Sierra Leone	N.A.	2012
43 171	Somalia	Production or Profit Sharing Agreement	Government of Puntland	Canmex Holdings (Bermuda) II Ltd; Range Resources Limited	2007
44 1819	Tanzania	[Model contact]	The Government of The United Republic of Tanzania Tanzania Petroleum Development Corporation	N.A.	2013
45 2015	Tunisia	Concession agreement	Tunisian State	Tunisian Oil Activities Company	2011
46 147	Uganda	Production or Profit Sharing Agreement	Government of The Republic of Uganda	Tullow Uganda Limited	2012
47 2806	Afghanistan	Production or Profit Sharing Agreement	The Ministry of Mines & Petroleum of the Government of the Islamic Republic of Afghanistan	Dragon Oil (Mazar-i-Sharif) Limited TP Afghanistan Limited Ghazanfar Investment Ltd.	2013
48 5159	Azerbaijan	Production or Profit Sharing Agreement	The State Oil Company of the Republic of Azerbaijan	Zenith Aran Oil Company Limited Socar Oil Affiliate	2016
49 2161	Bangladesh	Production or Profit Sharing Agreement [Model contract]	President of the People's Republic of Bangladesh Bangladesh Oil, Gas and Mineral Corporation (Petrobangla)	N.A.	2008
50 2162	Cambodia	Production or Profit Sharing Agreement [Model contract]	Kingdom of Cambodia	N.A.	2004
51 768	China	Production or Profit Sharing Agreement	People's Republic of China China United Coalbed Methane Corp. Ltd	Pacific Asia Petroleum Ltd.	2007
52 789	Georgia	Production or Profit Sharing Agreement	State of Georgia: State Agency for Regulation of Oil and Gas Resources in Georgia, Georgia Oil	Canargo Norio Ltd.	2000
53 805	India	Production or Profit Sharing Agreement	The Government of India; Oil India Ltd	Geoglobal Resources (Barbados) Inc.	2007
54 4791	Indonesia	- [Model contact]	Badan Pelaksana Kegiatan Usaha Hulu Minyak Dan Gas Bumi (Badan Pelaksana)	N.A.	2013

Contract # and document code	Host country	Contract type	Government entity	Company name	Year
55 1773	Iraq	Production or Profit Sharing Agreement	Kurdistan Regional Government of Iraq.	Repsol YFP Oriente Medio S.A.	2011
56 2169	Jordan	Production or Profit Sharing Agreement [Model contract]	Natural Resources Authority of the Hashemite Kingdom of Jordan	N.A.	2009
57 844	Kazakhstan	Concession agreement	Ministry of Energy and Mineral Resources of – The Republic of Kazakhstan	Joint-Stock Company Caspi NEFT TME.	2006
58 18	Mongolia	Production or Profit Sharing Agreement	Mineral Resources and Petroleum Authority of Mongolia	DWM Petroleum Ag	2009
59 2181	Pakistan	Concession agreement [Model contract]	President of the Islamic Republic of Pakistan	N.A.	2009
60 821	Tajikistan	Production or Profit Sharing Agreement	Government of Republic of Tajikistan Represented By The State Authorized Body Ministry of Energy and Industry	Kulob Petroleum Limited	2008
61 2306	Timor-Leste	Production or Profit Sharing Agreement [Model contract]	Autoridade Nacional Do Petroleum	N.A.	2014
62 143	Yemen	Production or Profit Sharing Agreement	– Ministry of Oil and Minerals	Occidental of Yemen TG Holdings Yemen Yemen General Corporation for Oil & Gas	2007
<b>Land/agricultural contracts</b>					
63 1150	Cameroon	Contract	Republic of Cameroon – represented by the Minister of Economy, Planning and Regional Development.	SG Sustainable Oils Cameroon PLC (External source: owned by the American company Herakles Farms) [Palm Oil]	2009
64 4655	CAR	Contract	The Ministry of Water, Forests, Hunting and Fishing	The Company Timberland Industries S.A.	2019
65 4313	Congo	Contract	Congo: Ministry of Agriculture and Livestock.	Atama Plantation Company	2010
66 3623	DRC	Contract	The Democratic Republic of Congo	La Société Plantations Et Huileries Du Congo S.A.	2016
67 1037	Ethiopia	Contract	Ministry of Agriculture – Federal Democratic Republic of Ethiopia	OMO Valley Farm Cooperation PLC.	2012
68 4184	Gabon	Contract	Gabonese Republic	OIL PALM GABON	2012

Contract # and document code	Host country	Contract type	Government entity	Company name	Year	
69	1842	Ghana	Contract	Government of The Republic of Ghana	Socfinaf S.A.	2015
70	682	Liberia	Contract	Republic of Liberia: Represented by the Minister of Agriculture, the Minister of Finance, the Chairman of the National Investment Commission	Golden Veroleum (Liberia) Inc.	2010
71	4173	Madagascar	Contract	The Malagasy State Represented by the Deputy Prime Minister in Charge of Development and Territorial Development	La Societe Tozzi Green	2012
72	2104	Mali	Contract	Office du Niger, a Public Establishment of an Industrial and Commercial Nature	PETROTECH – FFN AGRO MALI SA	2007
73	4429	Mozambique	Contract	Republic Of Mozambique Ministry of Planning and Development the Office of the Minister	Emvest Chokwe Mauritius Ltd Pro-Alia Investment 1 Mauritius	2009
74	1872	Sierra Leone	Contract	The Government of the Republic of Sierra Leone	Socfin Agricultural Company (S.L) Ltd	2012
75	1180	South Sudan	Contract	Mukaya Payam Cooperation, an authorised territorial subdivision of Southern Sudan	Nile Trading & Development, A Delaware Corporation	2008
76	1870	Sudan	Contract	Government of the Republic of Sudan	Government of the Syrian Arab Republic	2002
77	1028	Cambodia	Contract	Kingdome of Cambodia	Heng Yue (Cambodia) International Company Limited (Cambodian company)	2010
78	2785	Malaysia	Contract	The Superintendent of Lands and Surveys Samarahan	Lembaga Pembangunan Dan Lindungan Tanah Nirwana Muhibbah SDN. BHD	2000
79	4431	Philippines	Contract	Far East Agricultural Investment Company	Agri Nurture Inc	2010
80	1869	Timor-Leste	Contract	Timor-Leste: Ministry of Agriculture and Fisheries	Gtleste Biotech: Sugar Cane Industry	2008

Source: Author

### Appendix J. Allocation of quasi-property rights through mineral extraction contracts

Contract #	Right to use and operate			Temporal	Alienation	Dispute resolution mechanisms			Compensation	Stability				
	Mineral mining right	Water use Right	Permit Infrastructure			Land rights	Exploitation period	Renew period			Alienation	Amicable settlement	Technical matters	Litigation: Arbitration
1. Burkina Faso	✓			✓	✓	✓	✓	✓	✓	✓			✓	
2. Burundi	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓	
3. Cameroon	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
4. Chad*	✓				✓	✓								
5. DRC	✓			✓			✓	✓		✓			✓	
6. Egypt*,**	✓			✓			✓	✓		✓	✓			
7. Ghana	✓			✓	✓	✓	✓	✓		✓				✓
8. Guinea	✓		✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
9. Liberia	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
10. Malawi	✓	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓
11. Mali	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12. Mauritania	✓	✓		✓	✓			✓		✓	✓		✓	✓
13. Niger	✓	✓		✓	✓	✓	✓	✓		✓	✓		✓	✓
14. Senegal	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
15. Sierra Leone	✓	✓		✓	✓	✓	✓		✓	✓			✓	✓
16. Togo*	✓						✓							
17. Tunisia	✓	✓						✓		✓				
18. Zambia	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
19. Afghanistan	✓			✓	✓	✓	✓	✓		✓	✓		✓	✓
20. Mongolia	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
21. Papua New Guinea	✓		✓	✓			✓		✓	✓	✓			✓
22. Philippines	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓	

\* Exploration/research permit.

\*\* Model contract

Source: Author



## Appendix K. Allocation of quasi-property rights through petroleum extraction contracts

Contract #	Right to use and operate			Temporal			Alienation	Dispute resolution mechanisms			Compensation		Stability	
	Petroleum mining right	Water use Right	Permit Infrastructure	Land rights	Exploitation period	Renew period	Alienation	Amicable settlement	Technical matters	Litigation: Arbitration	Expropriation	Indirect expropriation	State support	Change in law/ policy
23. Cameroon	✓				✓		✓			✓				
24. Chad	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
25. Congo	✓						✓			✓			✓	✓
26 DRC	✓	✓		✓	✓	✓	✓		✓	✓			✓	✓
27. Egypt	✓				✓	✓	✓			✓				✓
28. Equatorial Guinea*	✓	✓		✓	✓	✓	✓	✓		✓			✓	✓
29. Ethiopia*	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓
30. Ghana	✓			✓	✓	✓	✓	✓	✓	✓			✓	✓
31. Guinea	✓	✓		✓	✓	✓	✓	✓		✓			✓	✓
32. Côte d'Ivoire	✓	✓		✓	✓	✓	✓	✓		✓			✓	✓
33. Kenya	✓		✓	✓	✓		✓	✓		✓			✓	✓
34. Liberia*	✓	✓		✓	✓	✓	✓	✓		✓			✓	✓
35. Libya	✓				✓		✓	✓		✓				
36. Madagascar*	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	
37. Malawi	✓		✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
38. Mauritania*	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
39. Mozambique	✓	✓	✓	✓	✓		✓	✓	✓	✓				✓
40. Nigeria	✓				✓		✓	✓		✓				✓
41. Senegal	✓	✓		✓	✓	✓	✓	✓	✓	✓				✓
42. Sierra Leone*	✓			✓	✓	✓	✓	✓	✓	✓			✓	
43. Somalia	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓	
44. Tanzania*	✓						✓	✓	✓	✓				
45. Tunisia	✓	✓		✓	✓		✓	✓		✓				
46. Uganda	✓		✓		✓	✓	✓	✓	✓	✓			✓	✓
47. Afghanistan	✓			✓	✓	✓	✓	✓		✓			✓	✓

Contract #	Right to use and operate			Temporal		Alienation	Dispute resolution mechanisms			Compensation		Stability		
	Petroleum mining right	Water use		Land rights	Exploitation period	Renew period	Alienation	Amicable settlement	Technical matters	Litigation: Arbitration	Expropriation	Indirect expropriation	State support	Change in law/ policy
Right		Permit	Infrastructure											
48. Azerbaijan	✓			✓	✓	✓	✓	✓		✓	✓		✓	✓
49. Bangladesh*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
50. Cambodia*	✓			✓	✓	✓	✓	✓	✓	✓			✓	✓
51. China	✓				✓	✓	✓	✓		✓			✓	✓
52. Georgia	✓	✓		✓	✓	✓	✓			✓			✓	✓
53. India	✓				✓	✓	✓	✓	✓	✓			✓	✓
54. Indonesia*	✓				✓		✓	✓		✓				
55. Iraq	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
56. Jordan*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
57. Kazakhstan	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
58. Mongolia	✓	✓		✓	✓	✓	✓	✓		✓	✓		✓	✓
59. Pakistan*	✓						✓	✓		✓			✓	✓
60. Tajikistan	✓	✓		✓	✓	✓				✓			✓	✓
61. Timor-Leste*	✓				✓		✓	✓		✓				
62. Yemen	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓

\* Model contract

Source: Author

## Appendix L. Allocation of quasi-property rights through land contracts

Contract	Right to use and operate			Temporal	Alienation	Dispute resolution mechanisms	Compensation	Stability					
	Agricultural right	Water use	Land right										
Country #		Right	Infrastructure	Exploitation period	Renew period	Alienation	Amicable settlement	National court	Litigation: Arbitration	Expropriation	Indirect expropriation	State support	Change in law/policy
63. Cameroon	√	√		√	√	√			√		√	√	√
64. CAR	√			√	√		√	√					
65. Congo	√			√	√		√		√				√
66. DRC	√			√	√	√							
67. Ethiopia	√		√	√	√	√	√	√				√	
68. Gabon	√	√	√	√	√	√	√		√	√		√	
69. Ghana*	√			√	√	√	√		√				
70. Liberia	√	√	√	√	√	√	√		√	√		√	√
71. Madagascar				√	√	√					√		
72. Mali	√		√	√	√	√	√	√		√		√	
73. Mozambique	√			√	√	√							
74. Sierra Leone**	√		√	√	√	√			√	√		√	√
75. South Sudan	√			√	√		√		√			√	
76. Sudan***	√	√		√	√	√	√						
77. Cambodia	√		√	√	√		√	√	√			√	
78. Malaysia	√			√	√								
79. Philippines**	√			√									
80. Timor-Leste**	√			√	√	√						√	

\* Sell agreement;

\*\* Memorandum of Understanding;

\*\*\* Agreement between States (Sudan and Syria)

Source: Author