

The Arctic Council: Gatekeeper or Doormat to the World's Next Major Resource Battle?

Oded Cedar

American University Washington College of Law

Follow this and additional works at: <http://digitalcommons.wcl.american.edu/sdlp>



Part of the [Environmental Law Commons](#)

Recommended Citation

Cedar, Oded. "The Arctic Council: Gatekeeper or Doormat to the World's Next Major Resource Battle?" *Sustainable Development Law & Policy* 12, no. 1 (2011): 40, 51, 66-67.

This Feature is brought to you for free and open access by the Washington College of Law Journals & Law Reviews at Digital Commons @ American University Washington College of Law. It has been accepted for inclusion in *Sustainable Development Law & Policy* by an authorized administrator of Digital Commons @ American University Washington College of Law. For more information, please contact fbrown@wcl.american.edu.

THE ARCTIC COUNCIL: GATEKEEPER OR DOORMAT TO THE WORLD'S NEXT MAJOR RESOURCE BATTLE?

by Oded Cedar*

It has long been said that “Those who cannot remember the past are condemned to repeat it.”¹ If history indeed repeats itself, then all indicators suggest that the global community is ripe for another major “land grab.”² This time, the land at issue is the Arctic³ and the bounty is the abundant oil and natural gas reserves trapped beneath its surface.⁴

Over the last decade, a coalescence of different factors has shifted the search for natural resources such as oil and gas to the Arctic.⁵ Advances in exploration, drilling, and extraction technologies have helped mitigate the traditionally cost-prohibitive factors of developing ice-locked reserves.⁶ Geopolitical concerns about the waning global supply of oil and gas have also driven countries to explore for these resources in the Arctic.⁷ However, the primary force behind this focus is the undeniable fact that the Earth's changing climate is melting away the Arctic's ice sheet and permafrost, making the region's oil and gas reserves accessible for the first time.⁸

The Arctic Council (“AC” or “Council”) is a leading forum for the dialogue on the development of natural resources in the region.⁹ This intergovernmental body is comprised of eight member-nations, all of which border the Arctic Circle.¹⁰ The Council also includes six “permanent-observer” nations¹¹ who, though they have no voting rights, can participate and contribute to the work of the Council.¹² The AC's stated mission is to: “promot[e] cooperation, coordination, and interaction among the Arctic States . . . on common Arctic issues, in particular [on] issues of sustainable development and environmental protection in the Arctic.”¹³

The AC's mission stems from the Ottawa Declaration, which established the AC in 1996.¹⁴ This document avows the commitment of AC member-nations to seek “sustainable development in the Arctic region including conservation and sustainable use of natural resources.”¹⁵ This language from the Ottawa Declaration incorporates the Arctic Environmental Protection Strategy (“AEPS”) that was instrumental the Council's creation.¹⁶ Thus, the impetus behind the AEPS and the AC makes it reasonable to expect as well as demand some action from the Arctic Council to oversee and regulate the development of fossil fuels in the Arctic.¹⁷

Despite its benevolent mission and establishing documents, the AC has in actuality provided a forum for member-nations to lay the groundwork for unsustainable fossil fuel development in the Arctic.¹⁸ Most recently, the Danish ambassador to China noted his strong support for China's inclusion into the AC as a permanent-observer nation.¹⁹ This move garnered speculation from scholars and analysts, who noted China's aid to Denmark in the development of Greenland's natural resources, and China's

interest in Arctic resources since 2004.²⁰ Canada is an especially vocal claimant, touting the country's long-standing sovereignty over certain areas in the Arctic, and further expressing the country's intent to exercise its sovereignty in documents published with the AC.²¹ Other actions by the AC member-nations outside of the forum, like Russia's placement of a national flag on the Arctic's ocean floor, presumably stir echoes through the AC.²² At one point or another, every member nation of the AC has published reports with the council, expressing their plans to exercise sovereignty over the region and to develop its fossil fuel resources.²³

These national assertions make fossil fuel extraction in the Arctic seemingly expected and inevitable.²⁴ However, the AC member-nations' plans for fossil fuel extraction contradict their commitment to protecting the Arctic environment expressed in the Ottawa Declaration.²⁵ In addition to worsening the effects of climate change, unchecked oil and gas development can have direct, catastrophic environmental consequences. For example, the lack of oversight that allowed the BP oil spill to occur illustrates what could happen in the Arctic without proper regulation by the AC.²⁶ Furthermore, the AC has emerged as the key platform for the indigenous tribes of the Arctic to voice their concerns.²⁷ Without a proper oversight mechanism, these indigenous tribes will lose a key forum for ensuring their negotiating parity with the member-nations.²⁸ Therefore, it is imperative for the AC to develop environmentally conscious standards for fossil fuel extraction to protect the Arctic environment under the Ottawa Declaration. If the AC fails to do so, then it risks becoming an obsolete and ineffectual organization.

The AC should also create mechanisms that will enforce the member-nations' Ottawa commitments and environmental regulations for oil and gas development in the Arctic. However, since the AC is a “cooperative” group it currently has no binding enforcement authority.²⁹ Therefore, the first step must be the establishment of the AC's binding powers.³⁰ Without the essential ability to enforce its resolutions, the AC has no mechanism through which it can ensure that its member-nations do not act in contradiction with the AC's core missions. However, given their support for fossil fuel development in the Arctic, it is unlikely that the AC member-nations will voluntarily create a new regulatory authority in the region. Thus action must come from the international community, who —through the “permanent-observer” nations—must apply pressure on the AC

continued on page 51

*Oded Cedar is a J.D. candidate, May 2012, at American University Washington College of Law, specializing in Energy Law and Financial Regulation.

WATER CRISIS IN THE MURRAY-DARLING BASIN: AUSTRALIA ATTEMPTS TO BALANCE AGRICULTURAL NEED WITH ENVIRONMENTAL REALITY

by Joshua Axelrod

continued from page 12

adoption of the forthcoming Basin Plan and eventual compliance with its standards.⁴² The MDBA faces the challenge of redirecting policy toward a future of sustainable water use that recognizes the vulnerability of the communities that will be affected most.⁴³ As the Guide's proposals are integrated into the forthcoming Basin Plan, the MDBA must show MDB communities how their input

has been incorporated and how the central government's policy decisions have the communities' interests at heart.⁴⁴ As proposed by the Guide, the Basin Plan, and its implementation, must provide a viable framework for balancing these considerations in order to ensure future water resource security, economic stability, and necessary environmental rehabilitation.⁴⁵



WEAK PLANNING PROCESS FRUSTRATES PROTECTION OF PUERTO RICO'S THREATENED COASTLINE

by Mark Borak

continued from page 23

the development of an island-wide master plan has been in the works for many years, but has been repeatedly delayed.²¹ This legacy of poor planning has fostered the island's chronic sprawl, causing increased consumption of land even as population growth has slowed.²² By drafting and enacting a long-range master plan focused on resolving the island's inefficient land use patterns and prioritizing natural resource conservation, policymakers have

an opportunity to reverse this trend. Accompanied by transparency, public participation and gubernatorial accountability, the approval of a comprehensive master plan could represent the best hope of protecting finite natural resources and promoting sustainable economic development on one of the world's most densely populated islands.²³



THE ARCTIC COUNCIL: GATEKEEPER OR DOORMAT TO THE WORLD'S NEXT MAJOR RESOURCE BATTLE?

by Oded Cedar

continued from page 40

member-nations to establish the organization's binding powers. The permanent-observer nations should argue that the impacts of fossil fuel development are of global concern and affect all nations.³¹ Therefore, proper safety and environmental standards are needed to ensure stable and sustainable development of the Arctic's natural resources, a goal to which the AC is already committed.

The permanent-observer nations should also seek more influence on the affairs of the AC in relation to fossil fuel development. Without usurping the position of the member-nations, the permanent-observer nations should demand some limited voting rights when the AC wishes to enact binding resolutions. Providing the permanent-observer nations with voting rights would allow

more countries to voice their priorities and concerns, which may force the AC member-nations to consider the implications of their fossil fuel development plans on the global community.

If the AC member-states wish to take advantage of the benefits of climate change in the Arctic, they should do so in a manner that also honors their Ottawa commitments and the AEPS. The international community, then, should pressure the AC to make changes to its structure and provide effective oversight of fossil fuel extraction in the Arctic. In turn, the AC should respond by making the Ottawa Declaration binding and enforceable upon member-nations, allocating voting power to the permanent-observer nations, and effectuating the needed regulations.



¹ See 1 GEORGE SANTAYANA, *Reason in Common Sense*, in Vol. 1 THE LIFE OF REASON 284 (1905), <http://www.gutenberg.org/files/15000/15000-h/vol1.html>.

² According to the Merriam-Webster's dictionary "land grab" means "a usually swift acquisition of property often by fraud or force." *Land Grab Definition*, Merriam-Webster Dictionary, <http://www.merriam-webster.com/dictionary/land-grab> (last visited Nov. 18, 2011). There have been countless land grabs throughout history, two of the most notable are "Manifest Destiny" and "The Scramble for Africa." See *id.* The Cambridge dictionary further defines "land grab" as "the act of taking an area of land by force, for military or economic reasons." *Land Grab Definition*, Cambridge Dictionaries Online, <http://dictionary.cambridge.org/dictionary/business-english/land-grab> (last visited Nov. 18, 2011).

³ See *The Arctic is Poised to be Oil's Final Frontier*, SEEKING ALPHA (Sept. 28, 2011), <http://seekingalpha.com/article/296430-the-arctic-is-poised-to-be-oil-s-final-frontier> [hereinafter *Oil's Final Frontier*]; Sergey Andaykin, *Large Russian Interest for Arctic Licenses*, BARENTS OBSERVER (Oct. 24, 2011), <http://www.barentsobserver.com/index.php?id=4976120&cat=116320&printable=1>; see generally Peter F. Johnston, *Arctic Energy Resources and Global Energy Security*, 12 J. MIL. & STRATEGIC STUD., no. 2 (2010) (citing various efforts by arctic nations, through political and commercial entities, to explore the oceans and continental shelf in the Arctic and to stake their claim to any resources).

⁴ There is no certain way to know the amount of oil and natural gas available in the Arctic formations because methodologies of estimation are so varied. Figures range wildly from 44 billion to 157 billion barrels of oil (13% of the world's undiscovered supply), and 770 trillion cubic feet to 2,990 trillion cubic feet of natural gas (approx. 30% of the world's undiscovered natural gas). See Johnston, *supra* note 3, at 2-4.

⁵ See *Oil's Final Frontier*, *supra* note 3 (citing technological feasibility of exploration in the Arctic by the world's larger oil companies like Exxon and Rosneft); Christoph Siedler, *Taking Stock of North Pole Riches*, SPIEGEL ONLINE (Sept. 7, 2009), <http://www.spiegel.de/international/world/0,1518,druck-648197,00.html> (discussing the technological feasibility of oil and gas development in the Arctic); Duncan E.J. Currie, *Sovereignty and Conflict in the Arctic Due to Climate Change: Climate Change and the Legal Status of the Arctic Ocean*, GLOBELAW.COM (Aug. 5, 2007), http://www.globelaw.com/LawSea/Climate_Change_and_Arctic_Sovereignty.html (providing evidence about the changing environmental factors that lead to political conflicts and negotiations over sovereignty of the Arctic).

⁶ See *Oil's Final Frontier*, *supra* note 3; see also Siedler, *supra* note 5 (discussing increased interest in the Arctic by large oil companies and geological studies and surveys that speak to the technical and economic feasibility of tapping into the Arctic fossil fuel reserves).

⁷ See Johnston, *supra* note 3, at 1, 18-20 (discussing the concerns about the global availability of oil and natural gas, China's increasing demands for fossil fuels, and the hope/expectation that Arctic reserves will alleviate the strain on global supplies).

⁸ See Currie, *supra* note 5 (noting reductions in ice sheet and permafrost cover, and other drastic changes to the Arctic environmental as a result of changing climates that provides access to shipping channels and other commercial development in the Arctic); LINDA NOWLAN, ARCTIC LEGAL REGIME FOR ENVIRONMENTAL PROTECTION, INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES 2-3 (2001) (showing further evidence of melting ice and increasing temperatures in the Arctic).

⁹ See NOWLAN, *supra* note 8, at 9-10 (discussing the impetus behind the creation of the Arctic Council).

¹⁰ The eight original member nations are the United States, Canada, Russia, Iceland, Norway, Denmark, Finland, and Sweden. See Lev Levit, About Us: Member States, Arctic Council (Jul. 29 2011), <http://www.arctic-council.org/index.php/en/about-us>. The eight original member states have voting power and discretion over all matters and initiatives discussed by the Arctic Council. See *Arctic Council Rules of Procedure: General Provisions Rule 7*, ARCTIC COUNCIL (Sept. 17-18, 1998), <http://www.arctic-council.org/index.php/en/about/documents/category/4-founding-documents> (download *Arctic Council Rules of Procedure*) [hereinafter *Rules of Procedure*].

¹¹ The permanent-observer nations are France, Germany The Netherlands, Poland, Spain, and the United Kingdom. See *About Us: Observers*, ARCTIC COUNCIL (Apr. 27, 2011), <http://www.arctic-council.org/index.php/en/about-us/partners-links>.

¹² Nowhere in the Rules of Procedure adopted by the Arctic Council, does it provide for voting rights to Observers, but the rules do allow for Observers to submit statements at Ministerial Meetings of the Council. Therefore, by negative implication, there are no voting rights allotted to Observer Nations. Also, to obtain the status of "Observer" the Council implicitly determines that the subject observer has sometime to contribute to the Council, therefore participation is essential and encouraged. See generally *Rules of Procedure*, *supra* note 10.

¹³ See *About the Arctic Council*, Arctic Council (Apr. 7, 2011), <http://www.arctic-council.org/index.php/en/about-us> [hereinafter *About the Arctic Council*].

¹⁴ *Id.*

¹⁵ See Declaration on the Establishment of the Arctic Council (Sept. 19, 1996), <http://www.arctic-council.org/index.php/en/about/documents/category/4-founding-documents> [hereinafter *Ottawa Declaration*].

¹⁶ See NOWLAN, *supra* note 8, at 9-16.

¹⁷ The Arctic Environmental Protection Strategy ("AEPS") was a non-binding declaration made five years before the creation of the Arctic Council. Most if not all of the member-nations of the AC were present and signed on to the AEPS, which makes affirmative commitments to investigate, mitigate, and protect the Arctic against the effects of pollution brought on by fossil fuel development (among other things). See Arctic Environmental Protection Strategy, U.S.-Can.-Russ.-Fin.-Ice.-Nor.-Swed.-Den., at 2-4, 9-10, 14-15, Jun. 14, 1991, <http://www.arctic-council.org/index.php/en/about/documents/file/53-aeps> (download Arctic Environmental Protection Strategy). The Arctic Council is often seen as the outgrowth of AEPS, and was by many accounts expected to further the goals of AEPS. See NOWLAN, *supra* note 8, at 9. Therefore, the AC goals of "sustainable development" must have some nexus with the environmental aims of AEPS. It is not unreasonable to expect the AC to have some interest in regulating the development of fossil fuels in the Arctic.

¹⁸ See NOWLAN, *supra* note 8, at 9, 11, 15-16 (discussing the impetus behind the creation of the Arctic Council, analyzing the effectiveness of the Council in light of barriers to funding and decision-making power, and the inherent tension between environmental concerns and sustainable development that predominate the Council's dialogue.)

¹⁹ See Robert Sibley, *China Enters the Arctic Equation*, POSTMEDIA NEWS (Oct. 28, 2011), <http://www.canada.com/news/China+enters+Arctic+equation/5625499/story.html> (discussing the speech and support expressed by the Danish Ambassador in his latest speech in Beijing).

²⁰ Specifically, Sibley wrote, "Some suggest the Danish ambassador was not only trying to leverage Denmark's influence in the Arctic Council, but soliciting Chinese investment to help the Danes exploit Greenland's natural resources. And from China's perspective, they say, the ambassador's remarks reflect China's interest in gaining access to resources and increasing its geopolitical clout." See *id.* (citing noted scholars and analysts from the University of Calgary who have tracked China's increased interest in Arctic resources and China's questioning of Canadian sovereignty over the Northwest Passage).

²¹ See generally GOVERNMENT OF CANADA, STATEMENT ON CANADA'S ARCTIC FOREIGN POLICY: EXERCISING SOVEREIGNTY AND PROMOTING CANADA'S NORTHERN STRATEGY ABROAD, GOVERNMENT OF CANADA (2010), http://www.international.gc.ca/polar-polaire/canada_arctic_foreign_policy_booklet-la_politique_etrangere_du_canada_pour_arctique_livret.aspx?lang=eng&view=d (making strong, broad, and sweeping assertions about Canadian rights to sovereignty in certain areas of the Arctic, and expressing a plan to exercise those rights through the Arctic Council and other mechanisms).

²² See Toni Johnson, *Thawing Arctic's Resource Race*, COUNCIL ON FOREIGN RELATIONS (Aug. 9, 2007), <http://www.cfr.org/arctic/thawing-arctics-resource-race/p13978> (last visited Nov. 19, 2011) (discussing the move to place a flag, and the subsequent "research team" that went out to prove that the Arctic's underwater ridge connected to the Siberian Continental Shelf, thus giving Russia a claim to sovereignty under international maritime law).

²³ EXEC. OFFICE OF THE PRESIDENT, U.S. ARCTIC REGION POLICY (2009), <https://rapidlychangearctic.custompublish.com/getfile.php/868102.1463.wfsxdypcy/US+Arctic+Policy+2009.pdf> [hereinafter *Combined Strategies for the Arctic*].

²⁴ Presumably, the affirmative statements of the eight member-nations of the AC and the other articles cited in this piece evidence the strong expectation among the global community that the fossil fuel reserves will be developed. See *id.*

²⁵ The Ottawa Declaration also avows the member-nations' commitment to sustainable development of the natural resources within the Arctic. See *Ottawa Declaration*, *supra* note 15. Each member nation has enunciated a policy that supports the development of oil and gas reserves in the Arctic in each member-nation's respective "Strategy for the Arctic." See FINLAND PRIME MINISTER'S OFFICE, FINLAND'S STRATEGY FOR THE ARCTIC REGION 19-22 (2010); GOVERNMENTS OF DENMARK, THE FAROES, AND GREENLAND, KINGDOM OF DENMARK STRATEGY FOR THE ARCTIC 2011-2020 24-29 (Aug. 2011); GOVERNMENT OF ICELAND, A PARLIAMENTARY RESOLUTION ON ICELAND'S ARCTIC POLICY (2011); CANADA MINISTER OF PUBLIC WORKS AND GOVERNMENT, CANADA'S NORTHERN STRATEGY 14-16 (2009); NORWEGIAN MINISTRY OF FOREIGN AFFAIRS, NEW BUILDING BLOCKS IN THE NORTH 23-25 (2009); See also *Combines Strategies for the Arctic*, *supra* note 23, at art. G.

²⁶ See DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING, NATIONAL COMMISSION ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING 126-127 (2011), <http://www.oilspillcommission.gov/sites/default/files/documents/FinalReportChapter4.pdf> (discussing the failure of government regulators to enforce necessary regulations and maintain proper enforcement to ensure that BP was not cutting corners and lacking in the necessary safeguards to prevent the oil spill).

²⁷ See NOWLAN, *supra* note 8, at 10 (noting that a "unique" aspect of the Arctic Council is the fact that provides indigenous people's of the Arctic with 'Permanent Participant' status and provides them with an ability to influence the council's actions).

²⁸ Nowlan states, "The Arctic Council's effectiveness is significantly enhanced by this innovative approach to indigenous peoples. There is a general consensus among the participants that indigenous involvement in the AEPS has made the process a different and more successful product. Their participation gives 'real life examples' of the impacts of policies and developments." See NOWLAN, *supra* note 8, at 11.

²⁹ See NOWLAN, *supra* note 8, at 15-16 (discussing the lack of enforcement and decision making authority vested in the Council).

³⁰ See *id.*

³¹ See SUSAN JAY HASSOL, IMPACTS OF A WARMING ARCTIC: ARCTIC CLIMATE IMPACT ASSESSMENT 2-5 (2004) (discussing the impacts resource extraction on global and arctic climate change. Further discussing responses to climate change through mitigation of greenhouse gas emissions, and citing the role of fossil fuels in adding to greenhouse gas emissions).

Endnotes: THREATS TO A SUSTAINABLE FUTURE: WATER ACCUMULATION AND CONFLICT IN LATIN AMERICA

continued from page 45

¹ Jan Hendriks, *Water Laws, Collective Rights and System Diversity in Andean Countries*, in OUT OF THE MAINSTREAM: WATER RIGHTS, POLITICS, AND IDENTITY 168-71 (Rutgerd Boelens et al. eds. 2010).

² Anthony Bebbington et al., *Federating and Defending: Water, Territory and Extraction in the Andes*, in OUT OF THE MAINSTREAM. WATER RIGHTS, POLITICS AND IDENTITY 320 (Rutgerd Boelens et al. eds., 2010); KATE BERRY & ERIC MOLLARD, SOCIAL PARTICIPATION IN WATER GOVERNANCE AND MANAGEMENT: CRITICAL AND GLOBAL PERSPECTIVES (Routledge 2009).

³ See generally Jose Esteban Castro, *Water Struggles, Citizenship and Governance in Latin America*, 51 DEVELOPMENT, 72 (2008) (exploring some of the trends and problems that have arisen in Latin America surrounding water access).

⁴ *Id.* at 75; PAUL H. GELLES, WATER AND POWER IN HIGHLAND PERU: THE CULTURAL POLITICS OF IRRIGATION AND DEVELOPMENT (Rutgers Univ. Press 2000); Antonio Gaybor, *Acumulación en el campo y despojo del agua en el Ecuador*, in JUSTICIA HÍDRICA: ACUMULACIÓN, CONFLICTOS Y ACCIÓN CIVIL 195-208 (Rutgerd Boelens et al. eds. 2011).

⁵ UNITED NATIONS ENVIRONMENT PROGRAMME, Climate Change Hits Hard on Latin America and the Caribbean, (Apr. 6, 2007), <http://www.unep.org/documents.multilingual/default.asp?documentid=504&articleid=5558&l=en>.

⁶ Francisco Pena, *Acumulación de Derechos de Agua y Justicia Hídrica en México: El Poder de Las Elites*, in JUSTICIA HÍDRICA: ACUMULACIÓN, CONFLICTOS Y ACCIÓN CIVIL 209-22 (Rutgerd Boelens et al. eds. 2011).

⁷ *Id.*; see also Erik Swyngedouw, *Dispossessing H2O: The Contested Terrain of Water Privatization*, 16 CAPITALISM NATURE SOCIALISM 81, 81-98 (2005); KAREN BAKKER, BEYOND PRIVATIZATION: WATER, GOVERNANCE, CITIZENSHIP (2010); MIGUEL SOLANES & ANDREI JOURAVLEV, COMISIÓN ECONÓMICA PARA AMÉRICA LATINA Y EL CARIBE (U.N. CEPAL), RECURSOS NATURALES E INFRAESTRUCTURA: WATER GOVERNANCE FOR DEVELOPMENT AND SUSTAINABILITY 22-25 (2006).

⁸ U.N. CEPAL, Recursos Naturales e Infraestructura, *administración del agua en America Latina y el Caribe en el umbral del siglo XXI*, 12, (July 2001) (by Andrei Jouravlev).

⁹ Swyngedouw, *supra* note 7, at 93; JULIO F. ALEGRIA, CONFLICTS AND WATER MANAGEMENT IN PERU IN THE CONTEXT OF CLIMATE CHANGE 9-10 (2009), available at <http://www.iproga.org.pe/boletin/bol2041/JulioAlegria.pdf>.

¹⁰ Hendriks, *supra* note 1, at 17-72; Mourik Bueno de Mesquita, *Agua, concentración de recursos naturales y conflictos en el Perú*, in JUSTICIA HÍDRICA: ACUMULACIÓN, CONFLICTOS Y ACCIÓN CIVIL 179-94 (Rutgerd Boelens et al. eds. 2011).

¹¹ Swyngedouw, *supra* note 7, at 91.

¹² Rutgerd Boelens & Margreet Zwarteven, *Prices and Politics in Andean Water Reforms*, 36 DEVELOPMENT AND CHANGE 735, 735-58; BAKKER, *supra* note 7.

¹³ Hendricks, *supra* note 1, at 168-71.

¹⁴ Swyngedouw, *supra* note 7, at 82.

¹⁵ *Id.* at 83-84.

¹⁶ Pena, *supra* note 6, at 214.

¹⁷ *Id.* at 85 (discussing the establishment of regulatory bodies and the subsequent budgetary issues that led to inefficient operation).

¹⁸ Rutgerd Boelens, *The Politics of Disciplining Water Rights*, 40 DEVELOPMENT AND CHANGE, 307, 315-18 (2009) [hereinafter *Water Rights*].

¹⁹ *Id.* at 313-14.

²⁰ Boelens & Zwarteven, *supra* note 12, at 739-44.

²¹ Castro, *supra* note 3, at 73; Bebbington et al., *supra* note 2, at 313.

²² Bebbington, *supra* note 2, at 307-31.

²³ Rutgerd Boelens, Armando Guevara-Gil & Aldo Panfichi, *Indigenous Water Rights in the Andes: Struggles Over Resources and Legitimacy* 20 THE JOURNAL OF WATER LAW 268, 275-76. [hereinafter *Indigenous Water Rights*].

²⁴ *Id.* at 317.

²⁵ *Id.*

²⁶ See, e.g., ANTOINETTE HILDERING, International Law, Sustainable Development and Water Management (2004); see, e.g., ECONOMIC COMMISSION FOR EUROPE, 45th Sess., *Charter on Ground-Water Management*, E/ECE/1197 ECE/ENVWA/12 (1989) available at http://www.inter.nationalwaterlaw.org/documents/regionaldocs/groundwater_charter.html.

²⁷ HILDERING, *supra* note 26.

²⁸ James Keese, *International NGOs and Land Use Change in a Southern Highland Region of Ecuador*, 26 HUM. ECOLOGY 451, 464-66 (1998); Carols Larrea & Lisa L. North, *Adjustment Policy Impacts on Truncated Development and Democratization*, 18 THIRD WORLD Q. 913, 915-29 (1997); See generally Victoria A. Lawson, *Government Policy Biases and Ecuadorian Agricultural Change*, 78 ANNALS ASS'N AM. GEOGRAPHERS 433, 434-49 (1988).

²⁹ Gaybor, *supra* note 4, at 197-99.

³⁰ *Id.*

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ *Id.* at 199.

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.* at 200.

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*; Leontien Cremers et al, *Institutional Reform in the Andean Irrigation Sector: Enabling Policies for Strengthening Local Rights and Water Management*, 29 NATURAL RESOURCES FORUM 37, 41 (2005).

⁴⁵ Gaybor, *supra* note 4, at 200; Julio A. Berdegue & Ricardo Fuentealba, *Latin America: The State of Smallholders in Agriculture* at 20 (2011).

⁴⁶ Gaybor, *supra* note 4, at 200.

⁴⁷ *Id.*