

Volume 02 Issue 02 (August 2022)

Journal of **ENVIRONMENTAL LAW & POLICY**

Frequency: Tiannual Language: English

DOI: 10.33002/jelp

ISSN: 2564-016X



jelp@grassrootsjournals.org www.grassrootsjournals.org/jelp

Published by



In Partnership with



Yaroslav Mudryi National Law University

In Collaboration with



ARCTIC CENTRE University of Lapland

Northern Institute of Environmental & Minority Law

Journal of Environmental Law & Policy is an international, interdisciplinary journal that facilitates an understanding of environmental governance, policy and law issues not only by drawing upon and contributing to the environmental social sciences, but also linking the ecosystem health, natural resources, and social sciences. The aim of the journal is to promote communication among academia, government, business and industry, civil society groups, citizens' action groups, and non-governmental organizations who are instrumental in the solving of environmental problems and grassroots level issues.

> Published by: The Grassroots Institute 548 Jean Talon Ouest Montreal, Quebec Canada H3N 1R5

Contact: Dr. Hasrat Arjjumend Executive & Managing Editor jelp@grassrootsjournals.org

Copyright without Restrictions

Journal of Environmental Law & Policy allows the author(s) to hold the copyright without restrictions and will retain publishing rights without restrictions. The submitted papers are assumed to contain no proprietary material unprotected by patent or patent application; responsibility for technical content and for protection of proprietary material rests solely with the author(s) and their organizations and is not the responsibility of our journal or its editorial staff. The main (first/corresponding) author is responsible for ensuring that the article has been seen and approved by all the other authors. It is the responsibility of the author to obtain all necessary copyright release permissions for the use of any copyrighted materials in the manuscript prior to the submission. Further information about the Copyright Policy of the journal can be referred on the website link https://grassrootsjournals.org/credibility-compliance.php#Copyright *Journal of Environmental Law & Policy* by The Grassroots Institute is licensed under a Creative Commons Attribution 4.0 International License based on a

work at www.grassrootsjournals.org.

ii





ADVISORY BOARD

Chair, Advisory Board **Prof. Dr. Anatoly Getman** Rector, Yaroslav Mudryi National Law University, Ukraine

> Co-Chair, Advisory Board Justice Mukete Tahle Itoe Judge, High Court, Cameroon

> > Members

Prof. Dr. Nataliya R. Malysheva Professor & Chair, Space and Environmental Law Department & Deputy Director, V.M. Koretsky Institute of State and Law of the Academy of Sciences, Ukraine

Prof. Richard L. Ottinger *Dean Emeritus,* Elisabeth Haub School of Law, Pace University, USA

Prof. Debra L. Donahue *Emeritus Professor of Law,* College of Law, University of Wyoming, USA

Prof. Dr. Erkki J. Hollo *Professor Emeritus of Environmental Law,* University of Helsinki, Finland

Prof. Dr. Shaista Shameem

Fellow of the Royal Society of Arts, Acting Vice Chancellor, The University of Fiji Dean, JDP School of Law, The University of Fiji, Fiji

Univ.- Prof. Dr. Dres. h.c. Philip Kunig

Retired Professor of Law, Department of Public Law, Free University of Berlin & Emeritus Professor of Public Law, Türkisch-Deutsche Universität, Germany/Turkey

Prof. Dr. Evangelos Raftopoulos

Professor Emeritus of International Law & International Environmental Law, & Founding Director, MEPIELAN Centre, Panteion University, & Fellow, Cambridge Centre for Environment, Energy and Natural Resource Governance, University of Cambridge, & Member, Compliance Committee of the Barcelona Convention System, Greece/U.K.

iii



Prof. Dr. Koh Kheng Lian

Emeritus Professor&Founder/Former Director, Asia-Pacific Centre for Environmental Law, Faculty of Law, National University of Singapore, Singapore, & *Former Legal Officer*, Secretariat of the United Nations Commission on International Trade Law, Vienna, Austria

EDITOR-IN-CHIEF

Prof. Dr. Kamrul Hossain

Research Professor & Director, Northern Institute for Environmental and Minority Law, Arctic Centre, University of Lapland, Finland

DEPUTY EDITORS-IN-CHIEF

Dr. Ievgeniia Kopytsia

Associate Professor, Department of Environmental Law, Yaroslav Mudryi National Law University, Ukraine

Dr. Ngozi Finette Unuigbe

Professor of Environmental Law, Policy and Ethics, Faculty of Law, University of Benin, Nigeria

EXECUTIVE & MANAGING EDITOR

Dr. Hasrat Arjjumend

Senior Legal Research Fellow, Centre for International Sustainable Development Law & Founder President, The Grassroots Institute, Canada

ASSOCIATE EDITOR

Nivedita Chaudhary

Ph.D. Scholar and Senior Research Fellow, The Indian Law Institute, India

EDITORIAL BOARD

Dr. Noga Morag-Levine Professor of Law & The George Roumell Faculty Scholar, Law Faculty, Michigan State University, USA

Prof. Dr. Reed Elizabeth Loder Professor of Law, Environmental Law Center, Vermont Law School, Vermont University, USA

iv





Dr. Yanmei Lin

Associate Professor & Associate Director, US-Asia Partnerships for Environmental Law, Vermont Law School, Vermont University, USA

Dr. Sumudu Atapattu

Distinguished Administrative Program Specialist Director, Research Centers and International Programs, & Executive Director, UW-Madison Human Rights Program, University of Wisconsin Law School, USA

Dr. Srividhya Ragavan

Professor of Law & Director of India Program, Texas A & M School of Law, Texan A & M University, USA

Prof. Dr. David N. Cassuto

Professor of Law & Faculty Director of Graduate Programs, & Director, Brazil-American Institute for Law & Environment (BAILE), Elisabeth Haub School of Law, Pace University, USA

Prof. Michelle Bryan

Professor, Natural Resources and Environmental Law Program, Alexander Blewett III School of Law, University of Montana, USA

Prof. Dr. Meinhard Doelle

Professor of Law, Marine & Environmental Law Institute, Schulich School of Law, Dalhousie University, Canada

Dr. Sara L. Seck

Associate Professor & Associate Dean (Research), Schulich School of Law, Dalhousie University, Canada

Prof. Daniel W. Dylan

Associate Professor, Bora Laskin Faculty of Law, Lakehead University, Ontario, Canada

Dr. Semie Sama

Assistant Professor, Bora Laskin Faculty of Law, Lakehead University, Ontario, Canada

Dr. Martin-Joe Ezeudu

Assistant Professor, Bora Laskin Faculty of Law, Lakehead University, Ontario, Canada

Prof. Dr. Bándi Gyula, DSc

Jean Monnet Professor of EU Environmental Law & Head, Department of the Environmental and Competition Law, Faculty of Law and Political Science, Pázmány Péter Catholic University, Hungary

Prof. dr. habil dr. jur. Jakab Nóra

Full Professor, Department of Labour Law & Agricultural Law, Institute of Civil Law, Faculty of Law, University of Miskolc, Hungary

V





Prof. Dr. David Leary

Professor & Acting Associate Dean (Internationalisation), Faculty of Law, University of Technology Sydney, Australia

Prof. Dr. Jennifer McKay

Professor of Business Law, UniSA Justice & Society, University of South Australia, Australia

Prof. dr. K. J. (Kars) de Graaf

Professor of Public Law and Sustainability, Department of Constitutional Law, Administrative Law & Public Administration, Faculty of Law, University of Groningen, The Netherlands

Prof. dr. H.H.B. (Hans) Vedder

Professor of Economic Law, Department of Transboundary Legal Studies, Department European and Economic Law, Faculty of Law, University of Groningen, The Netherlands

Dr. Natalie L. Dobson

Assistant Professor, Utrecht Centre for Water, Oceans & Sustainability Law, & Netherlands Institute for the Law of the Sea, Utrecht University School of Law, Department of International and European Law, University of Utrecht, The Netherlands

Prof. Dr. Aðalheiður Jóhannsdóttir

Full Professor, Environmental and Natural Resources Law, Faculty of Law, University of Iceland, Iceland

Dr. Mar Campins Eritja

Professor, Section Public International Law, Department of Criminal Law and Criminology and Public International Law, Faculty of Law, Universitat de Barcelona, Spain

Prof. Dr. Agustín García Ureta

Professor of Administrative Law, Faculty of Law (Bizkaia Section), Euskal-Herriko Unibertsitatea (University of the Basque Country), Spain

Dr. Gabriela Alexandra Oanta

Associate Professor of Public International Law & Director, University Institute for European Studies, University of A Coruña, Law Faculty, Spain

Dr. Teresa Fajardo del Castillo

Associate Professor, Department of Public International Law & International Relations, Faculty of Law, University of Granada, Granada

vi





Dr. Rosa M. Fernández Egea

Associate Professor, Department of Public Law and Legal Philosophy, Facultad de Derecho (Faculty of Law), Universidad Autónoma de Madrid, Spain

Prof. Dr. Dawid Bunikowski

Distinguished Academic & Scholar, University of Eastern Finland (UEF) & University of Helsinki/University of the Arctic, Finland

Prof. Dr. Reetta Toivanen

Professor of Sustainability Science (Indigenous Sustainabilities), Helsinki Institute of Sustainability Science and Department of Cultures, Faculty of Arts, & Vice Director, Centre of Excellence in Law, Identity and the European Narratives (EuroStorie), University of Helsinki, Finland

Prof. Dr. Stefan Kirchner

Research Professor, Arctic Centre, University of Lapland, Finland

Dr. Laura Siragusa

Researcher, History, Culture and Communication, Faculty of Humanities, University of Oulu, Finland

Prof. Dr. Rafael Leal-Arcas

Jean Monnet Chaired Professor of EU International Economic Law & Professor of European and International Economic Law, Centre for Commercial Law Studies (CCLS), School of Law, Queen Mary, University of London, United Kingdom

Dr. Daria Shapovalova

Lecturer in Energy Law & Co-Director, Centre for Energy Law, School of Law, University of Aberdeen, United Kingdom

Dr. Avidan Kent

Associate Professor, School of Law, University of East Anglia, UK, & Fellow, Centre for International Sustainable Development Law, Canada

Dr. Alexandra R. Harrington

Lecturer in Law (Environment), Lancaster University, Law School, UK

Dr. Ilaria Espa

Senior Assistant Professor, Institute of Law (IDUSI), Faculty of Economics, Universitàdella Svizzeraitaliana, & Senior Research Fellow, World Trade Institute, University of Bern, Switzerland, &Lead Counsel 'Natural Resources', Centre for International Sustainable Development Law (CISDL), Canada

vii





Prof. Massimiliano Montini

Professor of European Union Law, Department of Business and Law, & Jean Monnet Module Coordinator, ELCE4SD, 2020-2023, & Scientific Coordinator, Europe Direct Centre, & Co-Director, R4S Regulation for Sustainability Research Group, University of Siena, Italy

Prof. Nicolò Giovanni Carnimeo

Professor, Ionic Department in "Juridical and Economic Systems of the Mediterranean: Society, Environment, Cultures", University of Bari Aldo Moro, Italy

Prof. Dr. Alexander Proelss

Chair in the International Law of the Sea and International Environmental Law, Public International Law and Public Law, Faculty of Law, University of Hamburg, Germany

Dr. Mirjana Drenovak Ivanović

Full Professor & Jean Monnet Chair in European Environmental Law, Department of Public Law, & Department of Theory, Sociology & Philosophy of Law, Faculty of Law, University of Belgrade, Serbia

Prof. Dr. Maja Seršić

Professor of International Law & Head, International Law Department, Faculty of Law, University of Zagreb, Croatia

Dr. Theresa Akpoghome

Professor of Law & Dean, Faculty of Law, Benson Idahosa University, Nigeria

Dr. Irekpitan Okukpon

Senior Research Fellow & Acting Head, Department of Public Law, Nigerian Institute of Advanced Legal Studies, Nigeria

Dr. Pamela Towela Sambo

Environmental Law Specialist & Lecturer, Private Law Department, School of Law, University of Zambia, Zambia

Dr. Olena V. Hafurova

Full Professor, Department of Agrarian, Land and Environmental Law named after Academician V.Z. Yanchuk, Faculty of Law, National University of Life and Environmental Sciences of Ukraine, Ukraine

Prof. Dr. Nadiia Kobetska

Full Professor, Department of Labour, Environmental & Agricultural Law, Vasyl Stefanyk Precarpathian National University, Ukraine

Dr. Yevhenii Suietnov

Associate Professor & Head, Department of Environmental Law, Yaroslav Mudryi National Law University, Ukraine

viii



Dr. Hanna Anisimova

Associate Professor, Department of Environmental Law, Yaroslav Mudryi National Law University, Ukraine

Dr. Vasyl Nepyivoda

Associate Professor, Department of International & European Law, Faculty of Law, National University of Kyiv-Mohyla Academy, Ukraine

Dr. Ivett Montelongo Buenavista

Professor of Environmental Law, Escuela de Estudios Ambientales (School of Environmental Studies), Universidad Autónoma Metropolitana-Azcapotzalco (Metropolitan Autonomous University-Azcapotzalco), Mexico

Prof. Dr. Cristiane Derani

Professor of International Economics & Environmental Law, & Dean of Graduate Studies, Universidade Federal de Santa Catarina, Brazil

Prof. Dr. Carina Oliveira

Adjunct Professor, Faculdade de Direito (Faculty of Law), Universidade de Brasília, Brazil

Dr. Mariana Ribeiro Santiago

Attorney, Barbuy e Santiago Advogados, Brazil

Dr. Pablo Ferrara

Arbitrator, Permanent Court of Arbitration, United Nations International Tribunal for the Law of the Sea (UNCLOS Annex VII) & Professor, Economy and Business School, Universidad del Salvador, Argentina

Dr. Gloria Lucía Álvarez Pinzón

Professor and Researcher, Department of Environmental Law, Universidad Externado de Colombia, & CEO, Soluciones Ambientales Estratégicas (SOLAMES), & Chairperson of the Board of Directors, Cerros de la Sabana Foundation, Colombia

Prof. Dr. Damilola S. Olawuyi

Professor & Associate Dean for Research, College of Law, Hamad Bin Khalifa University, Qatar, & Senior Visiting Research Fellow, Oxford Institute for Energy Studies, University of Oxford, UK, & Chancellor's Fellow & Director, Institute for Oil, Gas, Energy, Environment and Sustainable Development, Afe Babalola University, Nigeria

Prof. Dr. A. Z. M. Manzoor Rashid

Professor, Department of Forestry & Environmental Science, Shahjalal University of Science & Technology, Bangladesh

ix





Prof. Dr. Qin Tianbao

 Luojia Professor of Law & Director, Research Institute of Environmental Law (RIEL), Wuhan University, & Professor, China Institute of Boundary & Ocean Studies, European Studies Centre, Wuhan University, & Director, Research Center of the Supreme Court of China on Environmental-related Cases, & Vice Chair and Member, Compliance Committee of the Nagoya Protocol on ABS, UNCBD, & Legal Research Fellow, CISDL, Canada, & Vice President & Secretary-General, Chinese Society of Environment and Resources Law (CSERL)

Dr. Stellina Jolly

Assistant Professor, Faculty of Legal Studies, South Asian University, India, & Visiting Senior Research Associate, University of Johannesburg, South Africa

Dr. David Schorr

Associate Professor, The Buchmann Faculty of Law, Tel Aviv University, Israel

Dr. Ruxandra Malina Petrescu-Mag

Associate Professor, Faculty of Environmental Science & Engineering, Babes-Bolyai University, Cluj-Napoca, Romania

Dr. Christine Frison

FNRS Post-doctoral Research Fellow, Centre for Philosophy of Law (CPDR), Institute for Interdisciplinary Research in Legal Sciences, UCLouvain, Belgium, & Associate Research Fellow, Government & Law Research Group, Faculty of Law, University of Antwerp, Belgium, & Legal Research Fellow, Centre for International Sustainable Development Law (CISDL), Canada

Prof. Valentina Durán Medina

Professor, Centro de Derecho Ambiental de la, Facultad de Derecho, Universidad de Chile, Chile

Journal of Environmental Law & Policy. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <u>http://creativecommons.org/licenses/by/4.0/</u>





Х

TABLE OF CONTENTS

M-00303	CONCEPTUAL CHALLENGES TO THE RECOGNITION AND ENFORCEMENT OF THE RIGHT TO CLEAN, SAFE AND HEALTHY ENVIRONMENT By Brown Etareri Umukoro, Oghenerukevwe Ituru	1-28
M-00304	INTERNATIONAL LAW APPLICATION TO TRANSBOUNDARY POLLUTION: SOLUTIONS TO MITIGATE MINING CONTAMINATION IN THE ELK-KOOTENAI RIVER WATERSHED By Kieran Simpson, Ben R. Collison	29-55

Journal of Environmental Law & Policy. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <u>http://creativecommons.org/licenses/by/4.0/</u>





xi



JOURNAL OF ENVIRONMENTAL LAW & POLICY | 02:02 AUGUST 2022 Published by The Grassroots Institute, in partnership with Yaroslav Mudriy National Law University of Ukraine, and in collaboration with Northern Institute of Minority & Environmental Law, University of Lapland. Website: http://grassrootsjournals.org/jelp

> OPEN ACCESS Freely available online M – 00303 | Analytical Article

CONCEPTUAL CHALLENGES TO THE RECOGNITION AND ENFORCEMENT OF THE RIGHT TO CLEAN, SAFE AND HEALTHY ENVIRONMENT

Brown Etareri Umukoro*

Faculty of Law, Delta State University, Oleh Campus, Nigeria. Email: beumukoro@gmail.com; beumukoro@delsu.edu.ng ORCID: https://orcid.org/0000-0002-5385-7820

Oghenerukevwe Ituru

Faculty of Law, Delta State University, Oleh Campus, Nigeria. Email: outuru@delsu.edu.ng | ORCID: https://orcid.org/0000-0001-5216-8057 *Corresponding author

Received: 06 July 2022 | Accepted: 30 July 2022 | Published: 31 August 2022

ABSTRACT

The right to clean or healthy environment, or what may be called environmental right, is one of the most controversial emerging rights since the agitation for the recognition of the link between human rights and the environment started gaining momentum at international law forums. This is happening partly because, at the global level, no treaty attempts to delimit the scope of this right explicitly; an endeavour which would have served as a form of guide to national jurisdictions. Given that the UN General Assembly recently officially resolved that a clean, healthy and sustainable environment is a universal human right, and considering the implication this may have on national jurisdictions, it has become more imperative to redefine this right for the ease of enforcement. This paper seeks to examine the conceptual and the theoretical conundrum as well as the criticisms of the right to clean, safe and healthy environment that have largely played a prominent role against the enforcement of the rights in general. The paper also examines constitutional challenges associated with the recognition of the rights in Nigeria and the judicial effort in the case of *Gbemre v SPDC* in attempting to expound the constitutional right to life to include the right to the environment. The paper finds that the right to the environment has been described and qualified diversely from one jurisdiction to another rendering the same susceptible to the challenges of interpretation. The paper, however, suggests that given the importance of the right, same should be interpreted, no matter how it is qualified, to mean a right to an environment fit for human living, the courts being sufficiently able to draw the line between what environment is fit and what is not for human habitation.

Keywords: Recognition; Enforcement; Clean environment; Environmental right; Constitution; Justiciable; Nigeria

Editor-in-Chief: Prof. Dr. Kamrul Hossain | *Deputy Editors-in-Chief:* Dr. Evgeniya Kopitsa, Prof. Dr. Ngozi Finette Unuigbe | *Executive Editor:* Dr. Hasrat Arjjumend

How to cite this paper: Brown Etareri Umukoro, and Oghenerukevwe Ituru, 'Conceptual Challenges to the Recognition and Enforcement of the Right to Clean, Safe and Healthy Environment' (2022) 02 (02) Journal of Environmental Law & Policy 1-28 https://doi.org/10.33002/jelp02.02.01

Copyright © 2022 by author(s). This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). http://creativecommons.org/licenses/by/4.0/



1. INTRODUCTION

The agitation for clean, safe and healthy environment has just assumed a more progressive dimension with the recent official resolution of the UN General Assembly recognising the right to clean, healthy and sustainable environment as a universal human right. There has always been high demand on modern governments to diversify, industrialise, promote and sustain a sound economy to enable them to create jobs, provide housing and meet other human and capital needs.¹ While this crave is imperative and properly placed, same has thrown nature 'out of balance'² and man has begun to grapple with a catalogue of environmental challenges whether in developing or developed countries. In order to strike a balance between preservation of the environment and promoting sound economy, many countries, including Nigeria³, have had to adopt several approaches legislative⁴, ministerial⁵, political and judicial to address the evolving environmental concerns. Thus, human rights advocates⁶ have found the

¹ The necessity for development appears antithetical to the demand for a clean environment. As it is observed, "environmental concerns can negatively affect the short term needs and objectives of human beings. States and individuals could be in a situation of disadvantage, if they neglect their economic development in favour of environmental protection. Especially in developing countries, the struggle of parts of the population against poverty is often considered as more important than environmental protection." S Nijhawan, "Human Rights to a Clean Environment." (Unpublished Essay) submitted to the Faculty of Law and Social Sciences (London: School of Oriental and African Studies, 2004) pp. 3-4, <www.subin.de/environmen.pdf> accessed 14 January 2015.

² Erin Daly, 'Constitutional Protection for Environmental Rights: The Benefits of Environmental Process' (2012) 17 International Journal of Peace Studies 76, citing Justice Feliciano in the Philippine case of *Minors Oposa v Factoran* Jr. (1993) 224 SCRA 792.

³ In Nigeria, environmental consciousness did not begin much early. As of 1990 there were still complaints about the pace of the awareness of environmental problems in Nigeria. See, Jelili A Omotola, (ed.) Environmental Laws in Nigeria including Compensation (Lagos: Faculty of Law, University of Lagos, 1990) 201. Until 1988 when the Federal Environmental Protection Agency Decree was promulgated, there was no distinct environmental regulatory regime in Nigeria. In fact, it was the national environmental emergency situation i.e. the discharged of imported containers of toxic waste product in Koko in 1988 that led to the promulgation of the Federal Environmental Protection Act. Martin Joe Ezeudu, "Revisiting Corporate Violations of Human Rights in Nigeria's Niger Delta Region: Canvassing the Potential Role of the International Criminal Court" (2011) 11 African Human Rights Law Journal 36. Apart from scanty legislative instruments, legal discourse on the Nigerian environment too was rare until 1988 when the Faculty of Law of the University of Ibadan organized a conference on Environmental Law as part of the activities marking the 40th anniversary celebration of the University. See the Introduction to the book, Folarin Shyllon, *The Law and the Environment in Nigeria* (Ibadan: UI Press, 1989).

⁴ Several environmental legislations exist in Nigeria, some of them enacted in the hope of curtailing the rising temple of environmental degradation. Examples are the Environmental Impact Assessment Act Cap E.12 Laws of the Federation of Nigeria (LFN) 2004, Federal Environmental Protection Act Cap F.10 LFN 2004, Harmful Wastes (Special Criminal Provisions, etc) Act 1988, and National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007.

⁵ There is in Nigerian, both at the Federal and State levels, ministries of environment as well as departments, boards, agencies, commissions, etc. specially established to monitor the environment.

⁶ In fact, according to Boyle, a chief proponent of right to the environment, the nexus between the environment and human rights "amounts to 'greening' human rights law." See Alan Boyle, "Human Rights or Environmental Rights? A Reassessment" 1-2, http://www.law.ed.ac.uk/file-download/publications/0-221-humanjusticeorenvironmental rightsreassess.pdf> accessed 2 May 2015. See also, The Ksentini Report (Sub Commission of the United Nations Commission on Human Rights) UN. Doc. E/CN.4/sub.2/1989/C23 (1989). According to Ako, "The Ksentini

need to extend the frontiers of human right campaign by seeking for the recognition and enforcement of an emerging right referred to as environmental right, particularly to provide a quality, adequate and satisfactorily⁷ safe environment for human living. Though laudable this project is, it is not absolved of controversies, challenges or even confusion both real and imagined in the attempt to insist on a right to clean, safe and healthy environment.

2. THEORETICAL ASPECT OF THE RIGHT TO CLEAN, SAFE AND HEALTHY ENVIRONMENT

2.1 Understanding the term Environment

Part of the challenges facing the recognition and the enforcement of the right to a clean environment anywhere stems from the intricate nature of the term 'environment' itself. Thus, as a corollary to the discussion on the concept of the right to clean environment, it is imperative to start with what the term *environment* connotes. It has been said that 'the environment may encompass everything, and almost everything that happens in society can implicate the environment.'⁸

As simple as the term seems, the conceptual underpinnings are not devoid of divergence. While some see the environment from human right angle (anthropocentric), others see the right to the environment as right for the environment itself (ecocentric). Besides, the term 'environment' is inherently broad and neutral⁹ with diverse synonyms such as *nature*, *earth*,

Report offers what may be the broadest definition, or better still, components, of environmental rights. It suggests that the possible components of substantive human rights or perhaps several rights to the environment can be seen in one source that sets out no less than fifteen rights related to environmental quality." R. Ako, "The Judicial Recognition and Enforcement of the Right to Environment: Differing Perspectives from Nigeria and India" (2010) 3 NUJS Law Review 426. These include (a) Freedom from pollution, environmental degradation and activities that adversely affect the environment or threaten life, health, livelihood, well-being or sustainable development; (b) protection and preservation of the air, soil, water, sea-ice, flora and fauna, and the essential processes and areas necessary to maintain biological diversity and ecosystems; (c) the highest attainable standards of health; (d) safe and healthy food, water and working environment; (e) adequate housing, land tenure and living conditions in a secure, healthy and ecologically sound environment; (f) ecologically sound access to nature and the conservation and the use of nature and natural resources; (g) preservation of unique sites, and (h) enjoyment of traditional life and subsistence for indigenous peoples. Thus, para. 2 of the Draft Principles on Human Rights and the Environment E/CN.4/Sub.2/1994/9, Annex I (1994), which provides that "All persons have the right to a secure, healthy and ecologically sound environment" and that "this right and other human rights, including civil, cultural, economic, political and social rights, are universal, interdependent and indivisible" was a follow up of the Ksentini Report.

⁷ Article 24 of the African Chapter on Human and People's Rights OAU Doc. CAB/LEG/67/3 rev. I.L.M. 58 (1982) provides that "all peoples shall have the right to a generally satisfactory environment favourable to their development." See generally K. S. A. Ebeku, 'The Right to a Satisfactory Environment and the African Commission' (2003) 3 African Human Rights Law Journal 149-166.

⁸ Daly (n 2) 73.

⁹ PE Taylor, 'From Environmental to Ecological Human Rights: A New Dynamic in International Law?' (1998) 10 Georgetown International Environmental Law Review 309, 360.

ecology,¹⁰ *ecosystem*¹¹, *biosphere*,¹² *biodiversity*,¹³ etc. The meaning of the term is also coloured by some social, economic or political considerations in certain circumstances. For instance, some have linked environmental problems to the improper distribution of natural resources which is creating tension in the environment.¹⁴ The term, therefore, does not lend itself to the exclusive preserve of any particular field of learning in underscoring an acceptable meaning. Environmental scientists, environmental lawyers, analysts and commentators all have equal challenge in the theoretical voyage into the ambit of the term 'environment.' According to Dupuy and Viñuales¹⁵:

"A first question that arises when we attempt to understand the object of international environmental right law is whether the term 'environment' refers or can be pinned down to a single concept or meaning. The term 'environment' pervades scientific, political and media discourse and, yet its meaning remains unclear. As with the concept of 'time' of which Augustine said that we know what it means so long as we are not asked for a definition, the term 'environment' is as simple to understand intuitively as it is difficult to circumscribe precisely."

The fact that the term lends itself to diverse interpretations has been cited as one of the major challenges facing the judicial enforcement and onstitutionalisation of the right. According to Daly:

"Constitutionally enshrined environmental rights are particularly challenging for courts for a number of reasons, many of which flow from the lack of certainty about what the "environment" actually entails and how a meaningful

¹⁰ Encyclopedia of Earth states "an academic discipline, such as mathematics or physics, although in public or media use, it is often used to connote some sort of normative or evaluative issues...more properly ecology is used only in the sense that it is an academic discipline, no more evaluative than mathematics or physics. When a normative or evaluative term is needed then it is more proper to use the term 'environmental,' i.e., 'environmental quality,' or environmentally degrading." Charles Hall, 'Ecology,' The Encyclopedia of Earth (2014) accessed 14 August 2022">https://editors.eol.org/eoearth/wiki/Ecology_(Biology)> accessed 14 August 2022.

 ¹¹ The Convention on Biological Diversity defines 'ecology' to mean "a dynamic complex of plant, animal and micro-organism communities and their non -living environment interacting as a functional unit." See article 2 of the Convention on Biological Diversity, opened for signature 5 June 1992, 1760 UNTS 79 (entered into force 29 December 1993).

¹² This has been defined as the biological component of earth systems which also includes the lithosphere, hydrosphere, atmosphere and other 'spheres' (e.g., cryosphere, and anthroposphere, etc.). The biosphere includes all living organism on earth, together with dead organic matter produced by them." See the Encyclopedia of Earth, <www.eoearth.org/view/article/150667/> accessed 23 August 2022.

¹³ The word 'biodiversity' is a contracted version of "biological diversity." The Convention on Biological Diversity defines it as "the variability among living organisms from all sources including *inter-alia*, terrestrial, marine, and other aquatics ecosystems and the ecological complexes of which they are a part..." See n11, art. 2.

¹⁴ Ashwin Kumar, 'Ecological Environment: The Sociological Perspective' (2005) 10 (2) Journal of Applied Social Science 101.

¹⁵ Pierre-Marie Dupuy and Jorge E., 'Viñuales, International Environmental Law: A Modern Introduction' (Cambridge University Press 2015) 24.

conception of the environment can be incorporated into the practice of constitutional adjudication." 16

The question therefore is: what environment do we mean whenever there is reference to the phrase *environment*, and by extension, the *right to clean, safe and healthy environment*? Understanding what *environment* means is critical to whatever right that is attached to the environment. For instance, the environment has been defined as "everything which surrounds spatial entity, abiotic or alive."¹⁷ In the Oxford Dictionary of Ecology, the term 'environment' is defined as: "[t]he complete range of external conditions, physical and biological, in which an organism lives. The *environment* also includes social, cultural, and (for humans) economic and political considerations, as well as the more usually understood features such as soil, climate, and food supply."¹⁸

The Supreme Court of Chile had this to say on the environment:

"[T]he environment, environmental heritage and preservation of nature, of which the Constitution speaks and which it secures and protects, is everything which naturally surrounds us and that permits the development of life, and it refers to the atmosphere as it does to the land and its waters, to the flora and fauna, all of which comprise nature, with its ecological systems of balance between organisms and the environment in which they live."¹⁹

In the same vein, the New Zealand Environment Act of 1986 defines the environment as including:

(a) ecosystems and their constituent parts including people and communities; and (b) all natural and physical resources; and (c) those physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes; and (d) the social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) or which are affected by those matters.²⁰

To some scholars, the environment constitutes "an object of religious, cultural, and historical importance"²¹, while to others, it is "the physical landscape of a people's history and future."²² From the above, it is apparent

¹⁶ Daly n2, 73.

¹⁷ Dupuy and Viñuales, n15, 24 citing F. Ramade, 'Dictionaire Encyclopedique de l'ecologie et des Sciences de l'environnment' (Dunod 2002) 279.

¹⁸ Dupuy and Viñuales, n15, 24 citing Michael Allaby, 'Oxford Dictionary of Ecology' (3rd edn, Oxford University Press 2005) 154.

¹⁹ *Pedro Flores v Codelco*, División Salvador (1988) Rol. 2.052.

²⁰ Section 2 of the New Zealand Environmental Act 1986.

²¹ Daly, n2 citing Advocate Prakash Mani Sharma for Pro Public v His Majesty Government Cabinet Secretariat and others (1995) WP 2991(Nepal Supreme Court Joint Bench 1997.06.09).

²² See the opinion of the Kenyan High Court in the case of *Ogiek People v District Commissioner* (1999) Case No. 238/1999. In this case, the plaintiffs are the indigenous people of Ogiek Community in Kenya. They sought declarations and orders that their eviction from Tinet Forest by the Government (acting by the provincial administration) contravened their rights to the protection of the law, not to be discriminated against, and to reside in any part of Kenya, having

that though the definition of the term varies from place to place, there is a common denominator. That is, the term *environment* means more than the ecosystem - it includes everything in it. It is a description of the entire way of life of the people and people may not meaningfully enjoy full happiness if removed from what they understand as their environment.

2.2 The Concept of the Right to Clean Environment

Besides the challenge of ascertaining what the environment itself entails, there is also the more complex conceptual difficulty of underscoring the import of the various phrases which have been employed in describing the relationship between the environment and human rights being described in this work as the right to clean environment. The meaning of the phrases such as the 'right to clean environment' or the term 'environmental human right'²³ are not delimited by any known human right or environmental law instrument whether international, regional or domestic.²⁴ However, these phrases have emerged and have been accepted as relating to the nexus between human rights and the environment.²⁵ Thus, in most discussions on the relationship between human rights and the environment, several terminologies and adjectives have been employed to denote the meaning of the concept. Some of these terms are 'environmental rights,'²⁶ 'fundamental

lived in Tinet Forest since time immemorial. Though the court refused plaintiffs' claim in the overall interest of the Kenyan people as the Ogiek people were continuing to exploit natural resources of the Tibet forest indiscriminately the court found that an environment could be a physical landscape of a people's history and future.

²³ These rights can be both substantive and procedural. See Human Right-Based Approach to Health and Environment: Report of a Regional Seminar, by World Health Organization, Bangkok, Thailand, 20-21 August 2007, p.13 <www.apps.searo.who.int/pds-doc/B3222.pdf> accessed 13 January 2022 (hereafter, Human Right-Based Approach to Health and Environment). It is generally agreed amongst authors that there is no international agreement as to what environmental human rights are; but they can be broadly grouped into three areas i.e., "the right to clean and safe environment; the right to act to protect the environment; the right of information, to access to justice, and to participate in environmental decision making." Alero T Akujobi, 'Human Rights: The Environment and Sustainable Development in Nigeria' in MOU Gasiokwu, (edn), Ecology: Concept, Politics, and Legislation (Chenglo Books, 2013) 464.

²⁴ As rightly identified by Weston and Bollier, "on the global plane, no treaty provides for a human right to environment explicitly in either its autonomous or derivative form." See BH Weston, and DA Bollier, 'Regenerating the Human Right to a Clean and Healthy Environment in the Commons Renaissance' 14, https://www.ritimo.org/IMG/pdf/Regenerating-Essay-Part1.pdf> accessed 16 August 2022.

²⁵ The struggle of linking human right with the human environment arose majorly as a result of the growing environmental concern. This is because "human rights law seeks to ensure that environmental conditions do not deteriorate to the point where the substantive right to health, the right to a family, right to life, the right to culture, and other human right are seriously unpaired." D Shelton, 'Human Right and Environment: What Specific Environmental Rights have been Recognized?' (2008) 35 (1) Denver Journal of International Law and Policy 129.

²⁶ Shelton uses the term 'environmental rights' to refer to" any proclamation of a human right to environmental conditions of a specified quality." D Shelton, 'Developing Substantive Environmental Rights' (2010) 1 (1) Journal of Human Rights and the Environment 89.

environmental rights,²⁷ 'right to healthy²⁸ or clean²⁹ or quality³⁰ or adequate³¹ environment', etc. Most of the times, when these terms are used in legal instruments or discourses, they are intended to explain the relationship between the environment and human rights,³² or those rights described as fundamental rights in the Constitution.³³ According to Rodriguez-Rivera:³⁴

"There is the issue of the quality of environment involved in the right to a satisfactory environment. As yet, there is no agreement on the proper descriptive adjective; some of the adjectives employed by various authors and instruments include: healthy, healthful, adequate³⁵, satisfactory, decent, clean, natural, pure, ecologically sound, balanced and viable. Even so, it has been questioned whether it is realistic to have a precise minimum standard of environmental quality that allows for a life of dignity and well-being, given the scientific uncertainty surrounding the issue."

May and Daly observe that:

"Adjudicating constitutionally entrenched environmental rights comes with certain unavoidable challenges. New concepts and vocabulary need to be developed. Does the noun "environment" mean human environment, natural environment, or both? And which adjective to choose:

²⁷ James R May and Erin Daly, 'Vindicating Fundamental Environmental Right Worldwide' (2009) Oregon Review of International Law 364-440. Shelton has always referred to these rights simply as 'environmental rights.' See generally, Shelton n2626, 89-120.

²⁸ Principle 10 of the Rio Declaration on Environment and Development, UN Doc. A/CONF 151/26 (Aug. 12, 1992), United Nations Conference on Environment and Development, June 3-14, 1992, Rio de Janeiro, Brazil, (hereafter referred to as Rio Declaration) which states that human beings are "entitled to a healthy and productive life in harmony with nature." See also Art. 11 of the Additional Protocol to the American Convention on Human Right in the Area of Economic, Social and Cultural Right, Nov. 14, 28 ILM 156 which guarantees the right to a healthy environment.

²⁹ The adjective 'clean' as qualifying the environment has provoked certain scholars to ask if there is any right to clean environment at all. See generally, Nijhawan, n1.

³⁰ See Principle 1 of the Stockholm Declaration of the United Nations Conference on the Human Environment, (New York, 1973), UN Doc. A/CONF.48/14/Rev.1, which states that "Man has the fundamental right to freedom, equality and adequate conditions of life, in an *environment of a quality* that permits a life of dignity and well-being." According to Shelton "Principle 1 of the *Stockholm Declaration* established a foundation for linking human rights, health, and environmental protection..." Dinah Shelton, 'Human Rights, Health & Environmental Protection: Linkages in Law & Practice (2007) 1 Human Rights and International Legal Discourse 9.

³¹ See the Preamble to the Convention on Access to Information, Public Participation in Decision making and Access to Justice in Environmental Matters, June 25,1995 2/U.N.T.S. 447 (hereafter referred to as Convention on Access to Information) which states expressly that "Every person has the right to live in an environment adequate to his or her health and well-being."

³² Shelton n26, 89.

³³ See for instance, Chapter 4 of the Constitution of the Federal Republic of Nigeria 1999 (as amended).

³⁴ Ebeku, citing EL Rodriguez-Rivera 'Is the Human Right to Environment Recognized under International Law? It Depends on the Source' (2001) Colorado International Environmental Law and Policy 1.

³⁵ Okorodudu-Fubara, particularly expresses the view that 'the requirement that environment must be "adequate for [human] health and well-being" is extremely vague.' M Okorodudu-Fubara, Law of Environmental Protection (Caltop Publications, 1998) 80.

quality," "healthful," "clean," "adequate," or something else? What does a fundamental right to a quality environment entail?"³⁶

As confusing as these adjectives may be (and even in the absence of any qualification of the environment), it is apparent that an environment suitable³⁷ for human living is the focus of every draftsman, jurist, legal commentator, or human right activist in the pursuit of human right to the environment. For instance, the Supreme Court of Montana³⁸ faced with the task of elucidating the implications of a right to a specified environmental quality in the case of *Montana Environmental Information Center et. al. v. Department of Environmental Quality*³⁹ refused to be carried away by the description qualifying the word "environment" in the Montana Constitution. Article II, Section 3 of the Montana Constitution⁴⁰ provides in part that: "All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment."

In this case, the contention of the plaintiff, *inter-alia*, was that part of the Montana Constitution violated by the legislatures when they amended a State law to provide a blanket exception to requirements governing discharges from well water without regard to the degrading effect that the discharges would have on the surrounding or recipient environment.⁴¹ The Court held that:

"... the right to a clean and healthful environment is a fundamental right because it is guaranteed by the Declaration of Rights found at Article II, Section 3 of Montana's Constitution, and that any statute or rule which implicates that right must be strictly scrutinized and can only survive scrutiny if the State establishes a compelling state interest and that its action is closely tailored to effectuate that interest and is the least onerous path that can be taken to achieve the State's objective."⁴²

The holding of the Court was predicated upon what the court felt was the intentions of the drafters of the Constitution as regard the scope of

³⁶ May and Daly, n27, 370-371. Weston and Bollier also have this to say: "we use the phrase 'clean and healthy environment' to encapsulate the numerous adjectives that, alone or in combination, are used to identify or define this right, e.g., 'adequate,' 'decent,' 'balanced,' 'biodiverse,' 'resilient,' 'safe,' 'sustainable,' and 'viable,' in addition to 'clean' and 'healthy.' In no way, however, should this or other abbreviated usages (e.g., 'human right to environment,' 'right to environment') be interpreted to diminish the right from its fullest protective meaning." BH Weston, and D Bollier, 'Toward a Recalibrated Human Right to a Clean and Healthy Environment: Making the Conceptual Transition' (2013) 4 (2) Journal of Human Rights and the Environment 117.

³⁷ I am not unmindful of the fact that even the adjective "suitable" could raise sufficient linguistic questions as any other adjective.

³⁸ This is a state in the Western United States of America.

³⁹ (1999) 296 Mont 207, 988.

⁴⁰ See Montana Constitutional Convention, Vol. IV at 1200, 1 March 1972.

⁴¹ For a fuller discussion see generally, BH Thompson Jr., 'Constitutionalizing the Environment: The History and Future of Montana 's Environmental Provisions' (2003) 64 Montana Law Review 157-198, <http://scholarship.law.umt.edu/cgi/viewcontent.cgi?article=2290&context=mlr> accessed 27 January 2015.

⁴² Supra n39.

environmental quality guaranteed by the Constitution. The Court considered the drafting history of the constitutional amendment and noted that the original draft had no adjectives preceding the word environment. The Court did not allow itself to be restricted by the adjectives: 'clean' and 'healthful' describing the kind of environment anticipated by the Constitution. The Court recalled a delegate involved in the drafting as explaining that descriptive adjectives such as 'healthful' or 'unsoiled' were not initially included in the Montana Constitution. It was because the majority felt that the use of the word 'healthful' would create room for environment polluters. The court was of the view that, in excluding water discharges from well tests, the statute makes it impossible for the State to "prevent unreasonable depletion and degradation of natural resources" as required in the Montana people to clean and healthy environment. The Court stated further:

"We have not had prior occasion to discuss the level of scrutiny which applies when the right to a clean and healthful environment guaranteed by Article II, Section 3 or those rights referred to in Article IX, Section 1 are implicated. Nor have we previously discussed the showing which must necessarily be made to establish that rights guaranteed by those two constitutional provisions are implicated. However, our prior cases which discuss other provisions of the Montana Constitution and the debate of those delegates who attended the 1972 Constitutional Convention, guide us in both respects...we conclude that the right to a clean and healthful environment guaranteed by Article II, Section 3, and those rights provided for in Article IX, Section 1 were intended by constitution's framers to be interrelated the and interdependent and that state or private action which implicates either, must be scrutinized consistently. Therefore, we will apply strict scrutiny to state or private action which implicates either constitutional provision."43

According to Boyle:44

"Undoubtedly, definitional problems are inherent in any attempt to postulate environmental rights in qualitative terms. Surely, what constitutes a satisfactory, decent, viable, or healthy environment is bound to suffer from uncertainty and ambiguity. Arguably, it may even be incapable of substantive definition, or prove potentially meaningless and

⁴³ See the text of the Judgment at <http://www.elaw.org/node/2090> accessed 25 January 2015. It is obvious from the above that the framer of the Montana Constitution being aware of the nature of problems definitions can cause decided to avoid qualifying the word 'environment' in the original draft.

⁴⁴ Ebeku, citing A Boyle, 'The Role of International Law in the Protection of the Environment' in A Boyle & M Anderson (eds.), '*Human Rights Approaches to Environmental Protection*' (Oxford University Press, 1996).

ineffective, like the right to development, and may undermine the very notion of human rights."⁴⁵

It is also imperative to examine whether some of these terms e.g., 'right of the environment,' 'right to the environment,' 'environmental rights' and the 'right to clean environment' mean one and the same thing. Some suggests that there is a difference between the "right of the environment" and "right to the environment." Citing Rodriguez–Rivera, Ebeku⁴⁶ reiterated:

"The right of the environment is founded upon the notion that the environment possesses rights derived from its own intrinsic value, separate and distinct from human use of the environment."

In other words, the environment itself has certain rights for itself that should be preserved. This is the view of those who see the environment from eco-centric standpoint. However, May and Daly⁴⁷ admit that "definitional issues abound, including whether 'environment' is anthropogenic or should include eco-centric interests such as biodiversity..." Cullet on the other hand sees environmental protection "not only as a meaningful instrument for the realization of all human rights *but also as a goal in itself*."⁴⁸

The term 'environmental right,' on the other hand, is seen as encapsulating both the substantive and the procedural human rights necessary for the implementation and realisation of the right to a satisfactory environment.⁴⁹ Boyle's⁵⁰ analysis of the right is more embracing. According to him:

"Environmental rights do not fit neatly into any single category or "generation" of human rights. They can be viewed from at least three⁵¹ perspectives, straddling all the various categories or generations of human rights."

Some others see the environment as "an independent value and needs a strict protection as other commonly agreed value such as right to property

⁴⁵ Cullet, emphasizes the point that "The formulation of the right as a plain 'right to environment' is no more imprecise than a right to a healthy or clean environment as these qualifying adjectives are themselves vague and subject to divergent interpretations." P Cullet, 'Definition of an Environmental Right in a Human Right Context' (1995) 13 Netherlands Quarterly of Human Rights 30.

⁴⁶ See Ebeku, n7*Error! Bookmark not defined.*, 150.

⁴⁷ May and Daly, n27, 380-381.

⁴⁸ Emphasis mine. See Cullet, n45, 33. The right of environment confers right directly on the environment-as the best way of protecting the environment. See Ebeku, n7, 150.

⁴⁹ See Rodriguez-Rivera, cited in Ebeku, n7,150.

⁵⁰ Boyle, n6, 1.

⁵¹ The first perspective is that "civil and political rights can be used to give individuals, groups and nongovernmental organizations (NGOs) access to environmental information, judicial remedies and political processes. On this view their role is one of empowerment: facilitating participation in environmental decision-making and compelling governments to meet minimum standard of protection for life, private life and property from environmental harm. A second possibility is to treat a decent, healthy or sound environment as an economic or social right, comparable to those whose progressive attainment is promoted by the 1966 UN Covenant on Economic Social and Cultural Rights. Ibid.

or the right to life and health.⁵² Mushkat,⁵³ on his part identifies a distinction between 'environmental human right' and 'ecological right.' According to her:

"A degree of discord may be observed between those who focus on environmental human rights in the narrow sense of the term and those who seek to promote the broader idea of ecological rights. This stems from the intellectual tension, real or apparent, between the anthropocentric and ecocentric philosophical perspectives. The former conceives the environment whether explicitly or implicitly, as a mere good which serves to satisfy human needs and possess no intrinsic value in itself. ... The ecological viewpoint posits that the environment is a condition of all life on earth. It follows that limitation on individual human freedom may be required in order to protect nature, which encompasses the human species."

Given that most instruments creating or alluding to the right to the environment do not set out the meaning and scope of the right, and given that various instruments qualify the right using diverse languages and descriptions, some authors have fallen into the temptation of interpreting some of the terms as though they could represent different ideas. Having regard to the spirit behind the pursuit of human right within the context of the environment, it is safer to conclude that the terms such as 'environmental right,' 'right to environment,' 'right to clean environment,' etc. are all employed towards the objective of securing a habitable environment for man.⁵⁴ According to Onvizu,⁵⁵ "The right to a healthy environment is controversial, but scholars have attempted to link the environment to human rights." Some⁵⁶ are of the view that:

"Environmental rights are even broader as they include nonhuman phenomenal as well.⁵⁷ They have the potential to reach most matters affecting the human condition, including right to life, dignity, health, food, housing, education, work,

⁵² A Anderson, and T Kolk, 'The Role of Basic Rights in Environmental Protection'

 <https://www.juridicainternational.eu/public/pdf/ji_2003_1_140.pdf> accessed 13 August 2022.
 ⁵³ Rhoda Mushkat, 'Contextualizing Environmental Human Rights: A Relativist Perspective' (2009) 26 Pace Environmental Law Review 122.

⁵⁴ It is of paramount importance to note that the Preparatory Committee for the Stockholm Conference was given the recommendation "to draw up a declaration on the human environment dealing with the rights and obligations of citizens and governments with regard to the preservation of the human environment." See generally LB Sohn, 'The Stockholm Declaration on Human Environment' (1973) 14 The Harvard International Law Journal 425-426.

⁵⁵ W Onvizu, 'International Environmental Law, the Public's Health, and Domestic Environmental Governance in Developing Countries' (2005) 21 American University International Law Review 666.

⁵⁶ May and Daly are right when they state that "the purpose here is not to quibble about which adjective is most appropriate. Both authors use "quality" as the default and "adequate", "healthy", and "clean", generally 'except as applied to the constitutional nomenclature of a specific constitution.' See May and Daly, (n27) 371.

⁵⁷ May and Daly, *Ibid* citing T Hayward, 'Constitutional Environmental Rights' (2005)

culture, non-discrimination, peace and children's health,⁵⁸ as well as the health of the earth's water, ground, and air."

Other scholars⁵⁹ have exercised some care in dealing with the terms by delimiting the scope to avoid confusion. However, in arguing a case for ecocentric approach to the environment, Boyle appears to have compounded the dichotomy between *the right to the environment* and *environmental rights*. He asks:

"Should we continue to think about human right and the environment within the existing framework of human rights law in which the protection of human is the central focus - essentially a greening of the rights to life, private life and property - or has the time come to talk directly about environmental rights in other words a right to have the environment itself protected? Should we transcend the anthropocentric in favor of the eco-centric?"⁶⁰

Boyle appears to have used the term *environmental right* as if it relates to the right to have the environment itself protected. This is what others understand as the right to the environment. One may want to ask, therefore: is environmental right only about having "the environment itself protected? Is it strictly relating to the environment from eco-centric perspective? Is the protection of the environment strictly for the sake of the environment itself? When the environment is safe, is it only for the sake of nature? The answers to these questions are not in the affirmative. This is because the term *environmental rights* literally should connote a right derived from the environment and this right should be all inclusive. The result of environmental rights should be beneficial to both the environment and man.

It is a common ground that from the context in which some of these adjectives are used by scholars, environmental and human rights advocates agree that, broadly speaking, ecological or environmental rights suggest a connection between the environment and human rights. It can be suggested, therefore, that "by implication, environmental rights are akin in all respects to other rights that reflect morally justified individual demands."⁶¹ To this extent, the meaning and scope of each of these terms should be limited to the context in which the author puts them as there appears to be no agreement as to what strictly each of these terms represent other than they represent a right to live in a suitable environment, the court being in a better position to determine the suitability of the environment in each case.

It is in this light that Justice Feliciano of the Philippine refused to see difficulty or complication in the interpretation of the phrase "a balanced and

⁵⁸ See May and Daly, *Ibid*. See also, ECOSOC, U.N. Commission on Human Rights, Sub-com. On Prevention of Discrimination and Protection of Minorities, Human Rights and the Environment, 248, U.N. Doc. E/EN4/Sub.12/1994/a (July 6, 1994) prepared by Fatma Zohra Ksentini.

⁵⁹ According to Weston and Bollier, "We use the phrase "clean and healthy environment" to encapsulate the numerous adjectives that, either alone or in various combination, are used to identify or define this right, e.g., "adequate," "decent," "ecologically balanced," "resilient," "sustainable," and "viable" in addition to "clean" and "healthy." Weston and Bollier, n24,1.

⁶⁰ Boyle, n6, 3

⁶¹ Mushkat, *n53*, 122.

healthy ecology". According to the jurist's claims on the right to a *balanced and healthful ecology* can be founded on almost every wrong against the environment. He said:

"It is in fact very difficult to fashion language more comprehensive in scope and generalized in character than a right to 'a balanced and healthful ecology'. The list of particular claims, which can be subsumed under this rubric appears to be entirely open-ended: prevention and control of emission of toxic fumes and smoke from factories and motor vehicles; of discharge of oil, chemical effluents, garbage and raw sewage into rivers, inland and coastal waters by vessels, oil rigs, factories, mines and whole communities; of dumping of organic and inorganic wastes on open land, streets and thoroughfares..."⁶²

The position, therefore, is that the right to clean environment is at the root of very breach committed against the environment.

3. DEFINING THE RIGHT TO CLEAN ENVIRONMENT

Admittedly, defining a term has been one of the most Herculean tasks in the field of law. But where definition becomes inevitable, it is irrelevant how much ink is spilled in attempting to proffer one.⁶³ It has been identified that the meaning of a word lies in its use in the language.⁶⁴ It may be true too that the meaning of a word is just more words that stand in for them.⁶⁵ However, it is not out of place if one considers the meaning of the term *environmental rights* (as if this subsumes other related terms) with the hope of arriving at a near universally acceptable definition, even though the term may be coloured, some of the time, by its contextual appearance. Trying to develop a general platform to cover the terms is to improvise a framework to ensure that each term does not have to depend on the context in which it is used at all times but on the general notion of what it is accepted to mean.

The term "environmental rights" has raised a lot of dust and it is still generating more issues, moral, social, legal, and so forth, some of these issues having to do with the ambit of the entire idea of the linkage between human rights and the environment. It is, therefore, a complex term. Some authors rather embarking on the difficult task of proffering a definition have decided to draw inspiration from available relevant legal instruments as aid in elucidating the import of the term. Wet and Plessis state that:⁶⁶

⁶⁵ *Ibid.*

⁶² Minors Oposa v. Factoran, n2, 224.

⁶³ Arnold, has said that law for instance can never be defined with equal obviousness, however it should be said that adherence of legal instrument must never give up the struggle to define. See Arnold T., *The Symbol of Government*, 1935 p.36 cited in MI Jegede, 'What's Wrong with the Law?' (1993) NIALS Annual Lecture Series 12 at 2.

 ⁶⁴ Jaime Nester, 'Word-Meaning and the Contest Principle in the Investigations' 245
 http://wab.uib.no/ojs/index.php/agora-alws/article/view/2725/3174> accessed 15 August 2022, citing Ludwig Wittgenstein, *Philosophical Investigation* (Blackwell Publishers 2002) 187.
 ⁶⁵ Ibid

⁶⁶ Erik de Wet and Anél du Plessis, The Meaning of Certain Substantive Obligations Distilled from International Environmental Rights in South Africa (2010) 10 Africa Human Rights Law Journal

"Environmental rights contained in domestic bills of rights and international human rights instruments often consist of a complex combination of legal obligations. Their interpretation tends to be a particularly challenging task. Arguably, this also holds true for the environmental right in section 24 of the Constitution of the Republic of South Africa Act, 1996 (Constitution). Fortunately, however, there is a growing body of public international law, as well as foreign domestic law, on which one may draw to render the abstract language of section 24 [of the South Africa Constitution] more concrete for judicial application."

Why Wet and Plessis feel that public international laws and domestic laws may be helpful in clarifying the language of the South Africa Constitution relating to environmental rights provisions, it may even be more confusing in some other jurisdictions. This is because according to May and Daly "the almost complete lack of evidence of framers' intent about environmental provisions reinforces the sense of randomness."⁶⁷ It is thought, therefore, that it will rather be more rewarding if legislatures and drafters of Constitutions have a near-generally acceptable scholarly idea of what is *environmental rights* to aid in formulating environmental right provisions than to look forward to discordant legislative provisions, whether domestic or otherwise, for guidance.

Notwithstanding that these terms present a contextual conundrum (i.e., "the right to clean environment," "environment human rights," "environmental rights," the right to healthy environment, etc), all terms are used interchangeably⁶⁸ in this study as though all mean the same thing. However, it is desirable to underscore what they represent by way of definition.

Some scholars have made some attempts at defining the concept. According to MacDonald:

"[E]nvironmental rights are those rights related to environmental standards or protection that are safeguarded so as to benefit someone or something. That someone or something could be the environment itself, humans or combinations thereof. Environmental rights thus concern the

^{346.} They lament that the South African Constitutional Court has not yet had sufficient opportunity to clarify the meaning of section 24 of the South African Constitution. Section 24 of the South African Constitution, 1996 provides: "Everyone has the right [a] to an environment that is not harmful to their health or well-being; and [b]. to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that i. prevent pollution and ecological degradation; ii. Promote conservation; and iii. Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development." Ibid. Wet and Plessis, however, draw inspiration from the way in which international human rights bodies (both universal and regional) have interpreted and applied the relevant provisions of the respective human rights instruments within their jurisdiction. Ibid.

⁶⁷ See, May and Daly, n27, 376.

⁵⁸ For instance, Ebeku uses the term 'right to a satisfactory environment' to denote the three ramifications on human right to a satisfactory environment which he noted in his work. See Ebeku, n.

right to protect human health and private or common property (including the "natural" environment) from damage or potential damage sourced through the environment."⁶⁹ Otubu, on the other hand, states that:

"Environmental right ...[is the] right that gives human beings a primary right to a sustainable global environment. It has been defined as the right of individuals and peoples to an ecologically sound environment and sustainable management of natural resources conducive to sustainable development.⁷⁰ The term manages to be both elusive and controversial: elusive because there is no universal definition, controversial because many from the environmental sector define it from an eco-centric perspective (environment first) while the human rights constituency is predominantly anthropocentric (humans first)."⁷¹

According to Alan Boyle, "Environmental rights, give environmental quality comparable status to the other economic and social rights...[and] would recognize the vital character of the environment as a basic condition of life, indispensable to the promotion of human dignity and welfare, and to the fulfillment of other human rights."⁷²

It is imperative to note at this point that the terms "the right to clean environment," "environmental human rights" and "environmental rights" or even the *right to healthy environment* may not mean exactly one and the same thing even though it is obvious that all terms relate to the relationship between the environment and human being. For instance, if attention must be given to the definition of the word 'health' by the World Health Organisation (WHO)⁷³ then not every clean environment in the strict sense of the word 'clean'⁷⁴ denotes a healthy environment. WHO defines 'health'

⁶⁹ Karen E. MacDonald, 'Sustaining the Environmental Rights of Children: An Exploratory Critique' (2006) 18 (1) Fordham Environmental Law Review 7.

⁷⁰ J Razzaque, 'Human Rights and the Environment: Developments at the National Level South Asia and Africa' (2002) *Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment* 14-16 January 2002 Geneva, <a href="https://www.researchgate.net/profile/Jona-Razzaque/publication/255967177_Human_Rights_and_the_Environment_The_National_Experie nce_InSouth_Asia_an_Africa/links/5771017808ae842225abfdb9/Human-Rights-and-the-

Environment-The-National-Experience-InSouth-Asia-and-Africa.pdf> accessed 15 August 2022.
 ⁷¹ A Otubu, 'Environment and Human Rights: An Overview of current Trends in Nigeria' (2013) 2 The Nigerian Journal of Public Law 211.

⁷² Ayesha Dias, 'Human Rights, Environment and Development: With Special Emphasis on Corporate Accountability' https://hdr.undp.org/system/files/documents//ayesha-diaspdf.pdf accessed 15 August 2022.

⁷³ See the Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June 1946, which came into force on 7 April 1948. The issue of health as regard the determination of what is a safe environment cannot be brushed aside because "the right to health extends to the underlying determinants of health, which include a healthy environment." See The Report of a Regional Seminar by World Health Organization n. 23, 12.

⁷⁴ For instance, AS Hornby, Oxford Advanced Learner's Dictionary (8th edn, Oxford University Press, 2010) defines clean as 'not dirty.'

as "a complete state of physical, mental and social well-being, and not merely the absence of disease or infirmity."⁷⁵

Several other generally accepted definitions of the word 'health' exist. Bircher⁷⁶ defines health as "a dynamic state of well-being characterized by a physical and mental potential, which satisfies the demands of life commensurate with age, culture, and personal responsibility." Saracci77 defines it as "a condition of well-being, free of disease or infirmity, and a basic and universal human right." The Australian Aboriginal people generally have this to say about health: "...Health does not just mean the physical well-being of the individual but refers to the social, emotional, spiritual and cultural well-being of the whole community."78 Health can be "a whole of life view and includes the cyclical concept of life-death-life."79 The question therefore is: if the word 'health' connotes a state of healthiness, taking a bearing from the WHO's definition, can there be a 'healthy' environment in that sense? And if we have a healthy or healthful environment, does this simply mean a clean environment? Most governments feel threatened by obnoxious fumes and smokes in the atmosphere (and do not have problem treating these situations as unhealthy) but not with noise⁸⁰ (suggesting that if the issue is that of noise alone, the environment is clean enough) even though both situations affect the health of man.

The definition by WHO may be aspirational yet if analyzed within the context of environmental right, it has the possibility of sharpening government policies on the environment. According to Erika, "the 'critical aspect of the contribution that the right to health can offer to law and policy involves challenging conventional assumptions regarding the nature of

⁷⁵ See the Principle of the WHO Constitution at <https://www.afro.who.int/sites/default/files/2017-07/constitution_of_health_en.pdf> accessed 15 August 2022. Though, a critic argues that the "WHO's definition of *health* is utopian, inflexible, and unrealistic, and that including the word "complete" in the definition makes it highly unlikely that anyone would be healthy for a reasonable period of time. It also appears that 'a state of complete physical mental and social well-being' corresponds more to happiness than to health." Niyi Awofeso, '*Re-defining 'Health*' at <https://courses.sfcollege.edu/courses/398612/files/33934478/download?wrap=1> accessed 15 August 2022.

⁷⁶ Niyi Awofeso, Ibid, citing J Bircher, *Towards a Dynamic Definition of Health and Disease* (Med. Health Care Philos, 2005) 335-341.

⁷⁷ Niyi Awofeso, Ibid citing R Saracci, The World Health Organization needs to Reconsider its Definition of Health (1997) BMJ 409-410.

⁷⁸ Final Report and Recommendations of the National Health and Medical Research Council-Promoting the Health of Indigenous Australians: A Review of Infrastructure Support for Aboriginal and Torres Strait Islander Health Advancement (NHMRC, 1996) part 2. This Report was, however, rescinded by the National Health and Medical Research Council on 24 March 2005. The Report now exists only for historical purposes.

⁷⁹ Niyi Awofeso, Ibid citing HG Nijhuis and LJG Van der Maesen, 'The Philosophical Foundations of Public Health: An Invitation to Debate' (1994) J. Epidemiol Community Health 1-3.

⁸⁰ Until around 1975 most governments viewed noise as a 'nuisance' rather that environmental problem let alone a human issue. Up till today, noise pollution is only redressable in Nigeria under the common law of tort. In Oregon, however, the word "unreasonable" which is used to qualify the word *noise* is "commonly defined as: "not conformable to reason, irrational, not governed or influenced by reason, immoderate, excessive, exorbitant, foolish, unwise, absurd, silly, preposterous, senseless and stupid." See *State v Marker* (1975) 21 Or. App. 671, 675.

constraints and the consequences of policy choices in order to provide new possibilities for improving health."⁸¹

4. THE NIGERIAN EXPERIENCE

The issue of the right to clean environment has not been robustly articulated in Nigerian courts. The first authority on the right to clean, safe and healthy environment in Nigeria is the famous Federal High Court case of Mr. Jonah Gbemre and Shell Petroleum Development Company Nigeria Ltd and 2 Other.⁸² This authority, though very weak, has given that it is a lonely Federal High Court decision whose substance was not tested on appeal, has heightened the campaign for the recognition of the right to clean environment in Nigeria. Since then there has never been any scholarly discussion on the right to clean environment or on Chapter Two of the Constitution, or on social, economic and cultural rights in Nigeria without some pontifications on Gbemre v SPDC.83 In this case, the Applicants alleged, inter alia, that the operation of the Respondents in continuing to flare gas in their community contaminated and polluted their environment and exposed them to several diseases including respiratory illnesses, asthma, cancer, increased premature deaths and also reduced crop yield on the land.⁸⁴ As a result, the applicants urged the Court to declare their right to pollution-free environment entrenched under the Constitution and the African Charter on Human and Peoples' Rights. The substance of the claim of the applicants was that the Constitutionally guaranteed fundamental rights to life and dignity of the human person provided in the Constitution and reinforced by the African Charter on Human and peoples' Right (Ratification and

⁸¹ Constitutional Environmental Rights: A Quantitative Analysis of Intra-Regional Influences" http://wpsa.research.pdx.edu/meet/2012/gellers.pdf> accessed 13 February 2015 (author unknown).

⁸² (Unreported) Suit no: FHC/B/CS/53/05.

⁸³ The following are examples: O Oluduro, 'Environmental Rights: A Case Study of the 1999 Constitution of the Federal Republic of Nigeria' (2010) 4 Malawi Law Journal 255-270; UJ Orji, 'Right to a Clean Environment – Some Reflections' (2012) 42 Environmental Policy and Law 4– 5; EP Amechi, 'Litigating Right to Healthy Environment in Nigeria: an Examination of the Impacts of the Fundamental Rights (Enforcement Procedure) Rules 2009, in Ensuring Access to Justice for Victims of Environmental Degradation' (2010) 6 (2) Law, Environment and Development Journal 322-334; EO Ekhator, 'Improving Access to Environmental Justice under the African Charter on Human and Peoples' Rights: The Roles of NGOs in Nigeria' (2104) 22 (1) African Journal of International and Comparative Law 63–79; T Emejuru, 'Human Rights or the Environment: Whither Nigeria' (2015) 35 Journal of Law, Policy and Globalization 19-27. See also ST Ebobrah, 'The Future of Economic, Social and Cultural Rights Litigation in Nigeria' (2007) 1 (2) CALS Review of Nigerian Law and Practice 108-124.

⁸⁴ Brown E. Umukoro 'Gas Flaring, Environmental Corporate Responsibility and the Right to a Healthy Environment' in Festus Emiri & Gowon Deinduomo (eds), *Law and Petroleum Industry in Nigeria- Current Challenges* (Malthouse Press Ltd 2008) 49-64; Brown E. Umukoro, 'The Ogidigben EPZ Gas Project and the Environment: Health and Human Rights Implications' (2017) Ajayi Crowther University Law Journal 1- 38.

Enforcement) Act inevitably includes the right to clean and healthy environment.⁸⁵ All the reliefs of the applicants were granted.

The Judge has been highly commended for giving a purposeful interpretation to the fundamental rights contained in the Constitution and the African Charter. Some scholars feel that even though the Supreme Court did not have the opportunity to pronounce on the case, *Gbemre v SPDC* gives the sign that the African Charter can ground a valid application for the enforcement of socio-economic and cultural rights in the Nigerian Courts.⁸⁶ According to Ladan, "[t]his is a landmark judgment in the sense of application of fundamental human rights to an environmental case for the first time in Nigeria, consistent with the trend in other jurisdictions."⁸⁷

This notwithstanding, there are pockets of scepticisms shrouding *Gbemre's* case, particularly, having regard to the provisions of sections 6(6) (c) and 20 of the Nigerian Constitution. Section 20 of the Constitution provides that "the State shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria." The provision of section 20 is under Fundamental Objectives and Directive Principles of State Policy (FODPSP). By section 6(6) (c) of the same Constitution, FODPSP are not enforceable. Section 6(6) (c) provides:

"The judicial powers vested in accordance with the foregoing provisions of this section ...shall not except as otherwise provided by this Constitution, extend to any issue or question as to whether any act of omission by any authority or person or as to whether any law or any judicial decision is in conformity with the Fundamental Objectives and Directive Principles of State Policy set out in Chapter II of this Constitution..."

This section has been the major setback to the recognition and enforcement of all socio-economic rights as well as the right to clean, safe and healthy environment in Nigeria. The Court in *Gbemre's* case was exceptionally courageous by giving a broader interpretation to the provisions of the Constitution (which guarantee the right to life and the dignity of the human person) to include the right to live in a clean, safe and healthy environment. However, it has been correctly observed that "broadly interpreting the right to life to include the protection of environmental rights is not yet an established legal principle in Nigeria."⁸⁸ This leads us to why

⁸⁵ See the text of the case in <http://climatecasechart.com/wp-content/uploads/sites/16/non-us-casedocuments/2005/20051130_FHCBCS5305_judgment.pdf> accessed 15 August 2022 for the text of the judgment.

⁸⁶ ST Ebobrah, 'The Future of Economic, Social and Cultural Rights Litigation in Nigeria' (2007) 1
(2) CALS Review of Nigerian Law and Practice 122.

⁸⁷ MT Ladan, 'A Critical Appraisal of Judicial Attitude towards Environmental Litigation and Access to Environmental Justice in Nigeria, 20 being a text of paper presented at the 5th IUCN Academy Global Symposium, Rio de Janeiro, Brazil, 2007 http://adu.edu.ng/publications/2009-07-03-15041_3901.doc> accessed 12 July 2022.

⁸⁸ R. Ako, 'Promoting Environmental Justice in Developing Countries: Thinking Beyond Constitutional Environmental Rights' p. 7 being a text of paper presented at the 3rd UNITAR-Yale Conference on Environmental Governance and Democracy, 5-7 September 2014, New Haven, USA.

Gbemre's case has not opened up the way to right-based environmental justice in Nigerian. Apart from the uneasiness which trailed the political environment after the judgment, some constitutional lawyers feel that only the Constitution should protect the calibre of rights envisaged in Article 24 of the African Charter and that section 6(6) (c) of the Nigerian Constitution having made mockery of section 20 of the same Constitution, there exists no further basis for upholding environmental rights in Nigeria.⁸⁹ Others wonder why the Court did not make a statement on section 20 of the Constitution. As such, *Gbemre* not having been directly predicated on the Constitution appears to lack necessary force of law associated with fundamental rights provisions.

In summary, it must be admitted that the Court in *Gbemre's* case refused to be carried away by any conceptual, theoretical or constitutional limitation which has always been canvassed against the enforcement of the right to clean environment in jurisdictions where the right is inexplicit. No court has followed *Gbemre's* path since over 17 years of the decision.

In the more recent case of *Centre for Oil Pollution Watch v. Nigeria NNPC* ⁹⁰ the Appellant was a Non-Governmental Organisation [NGO] involved in the reinstatement, restoration and remediation of environments impaired by oil spillage/pollution; it also ensured that environments are kept clean and safe for human and aquatic live/consumptions. It sued the Respondent at the Federal High Court, Lagos, wherein it claimed *inter alia* for the:

- 1. Reinstatement, restoration and remediation of the impaired and/or contaminated environment in Acha autonomous community of Isukwuato Local Government Area of Abia State of Nigeria particularly the Ineh and Aku Streams, which environment was contaminated by the oil spill complained of.
- 2. Provision of portable water supply as a substitute to the soiled and contaminated Ineh/Aku Streams, which are the only and/or major source (sic) of water supply to the community.

The Respondent on its part contended that the Appellant lacked the requisite *locus standi* to institute or maintain the action as presently constituted, as the Appellant had neither suffered damage nor been affected by the injury allegedly caused to the Acha Community. The Court of Appeal in dismissing the appeal of the Appeal Court had this to say:

"The position of the law may have changed to cloak 'pressure groups, NGOs and public-spirited taxpayers' with *locus standi* to maintain an action for public interest, as argued by the Appellant, but that is in other countries, not Nigeria. The truth of the matter is that there is a remarkable divergence in the jurisprudence of *locus standi* in jurisdictions like England; India; Australia, etc., and the Nigerian approach to same,

⁸⁹ The decision in *Gbemre's* case discloses a strong desire on the part of the trial court to do environmental justice notwithstanding existing technical hitches.

⁹⁰ (2013) LPELR-20075(CA).

which has not evolved up to the stage, where litigants like the Appellant can ventilate the sort of grievance couched in its Amended Statement of Claim. As it is, the position of the law on the subject is that the plaintiff must show [enough] interest in the suit."

Thus, the Acha community was denied access to justice on the basis of *locus standi*. The court again failed to look at the issue of the right to live in a clean, safe and healthy environment in Nigeria. As it stands in Nigeria today, the government is not under any compelling duty to improve on the environment as there is no enforceable right to clean, safe and heathy environment. Accordingly, more depends on the judiciary in the struggle for the enforceability of environment rights in Nigeria. A vibrant judiciary must seek alternative pathways to environmental justice.

5. THE IMPLICATION OF THE UN GENERAL ASSEMBLY RESOLUTION ON THE RIGHT TO THE ENVIRONMENT

The 28 July 2022 is a very remarkable day for the struggle for the recognition of the right to clean environment as a universal human right. the United Nations General Assembly finally categorically recognised that a "clean, healthy and sustainable environment is a universal human right."⁹¹ The UN General Assembly with 161 votes and eight absentees adopted a significant resolution calling upon States, international organisations, and business enterprises to intensify efforts to ensure a healthy environment for all. This, no doubt, is a historic resolution. The Resolution recognises that "the impact of climate change, the unsustainable management and use of natural resources, the pollution of air, land and water, the unsound management of chemicals and waste, and the resulting loss in biodiversity interfere with the enjoyment of this right - and that environmental damage has negative implications, both direct and indirect, for the effective enjoyment of all human rights."⁹²

The struggle for the recognition of the right to clean environment started 50 years ago when the United Nations Conference on the Environment in Stockholm adopted the Stockholm Declaration⁹³ which was the first statement by international community to address environmental issues from human rights angle and "marked the start of a dialogue between industrialised and developing countries on the link between economic growth, the pollution of the air, water and the ocean, and the well-being of people around the world."⁹⁴ The Declaration of Principle on the Human Environment was meant to inspire and guide the people of the world in the

⁹¹ United Nations General Assembly Resolution (UNGA) A/76/L.75(2022).

⁹² UN News 'UN General Assembly declares access to clean and healthy environment a universal human right' (28 July 2022) https://www.un.org/africarenewal/magazine/july-2022/un-generalassembly-declares-access-clean-and-healthy-environment-universal-human> accessed 15 August 2022.

⁹³ Stockholm Declaration on the Human Environment, *Report of the United Nations Conference on the Human Environment* (New York, 1973), UN Doc. A/CONF.48/14/Rev.1.

⁹⁴ UN News, n91.

preservation and enhancement of the environment. 50 years after the UN General Assembly has found the need to categorically and officially resolve that the right to clean, safe and sustainable environment is a universal human right.

With the official recognition of the right to clean environment at international level there is hope as the stage is now set for the advancement of the right at domestic level in jurisdictions where the right has not been given outright recognition. Some countries like Nigeria identify environmental rights in a manner that makes it difficult to enforce directly.95 Nigeria with a rapidly deteriorating environment as a result of decades of unabated exploration and exploitation of oil, pollution victims still have no clear constitutional guarantee to clean environment. This legislative and judicial inertia is not common to Nigeria and has remained largely so in some countries partly, because of lack of sufficient force at international level. In the African continent, there is the African Charter on Human and Peoples' Rights which clearly recognises the right to 'satisfactory environment' in article 24.% This Charter has also been domesticated in Nigeria⁹⁷ but the judiciary in Nigeria has not been able to give effect to the right because it is listed as non-justiciable right in the Constitution⁹⁸ which makes the Ratification and Enforcement Act a toothless dog. On the hand, the African Charter is not enforceable because section 12 of the Constitution states that treaties must be domesticated before they can be enforced in Nigeria. While the recent UN General Assembly Resolution may mean well for many other nations without explicit and enforceable environmental rights provisions, it may not be the same for some countries like Nigeria until the various constitutional challenges have been addressed.

6. CONCLUSION

In the history of the struggle towards the recognition of the right to a clean, safe and healthy environment all over the world, many governments have begun to give a thought to the recognition of environmental rights particularly through constitutional provisions.⁹⁹ This is likely going to

⁹⁵ Other countries in this category are Afghanistan, Algeria, Cameroon, Comoros and Norway. May and Daly, n27, 388.

⁹⁶ Article 24 of the Charter provides that 'all peoples shall have the right to a general satisfactory environment favourable to their development.' For a fuller discussion on this, see generally, M Linde and L Louw, 'Considering the interpretation and implementation of article 24 of the African Charter on Human and Peoples' Rights in light of the SERAC communication' (2003) 3 African Human Rights Law Journal 167-187.

⁹⁷ African Charter on Human and Peoples' Right (Ratification and Enforcement) Act Cap A9 LFN 2004. (Hereafter, Ratification and Enforcement Act).

⁹⁸ Section 20 and 6(6) (c) of the Constitution.

⁹⁹ Boyd states that "Today [environmental right] ... is widely recognized in international law and endorsed by an overwhelming proportion of countries. Even more importantly, despite their recent vintage, environmental rights are included in more than 90 national constitutions. These provisions are having a remarkable impact, ranging from stronger environmental laws and landmark court decisions to the cleanup of pollution hot spots and the provision of safe drinking water." DR Boyd, 'The Constitutional Right to a Healthy Environment' (2012) 54 (4) Science and Policy for Sustainable Development 3.

receive a higher recognition with the recent resolution of the UN General Assembly clearly and officially stating that a clean, healthy and sustainable environment is a universal human right. With this bold step by the international community, the interpretation of the concept and enforcement of this right at different levels now calls for further attention. There is a measure of disharmony between those who emphasis on environmental human rights in the narrow sense of the term and those who seek to promote the broader idea of ecological rights. These later agitators see the right as the centre of human existence. Thus, whether the right is termed as 'environmental right,' 'right to environment,' 'right to clean environment,' 'right to satisfactory environment,' or 'right to decent or healthy environment,' all are descriptions towards the objective of securing a habitable environment for man. It is suggested that whatever context in which the right is used, or whatever conceptual challenges that may be associated with the import of the right, judicial efforts should be geared towards interpreting the right to provide the full enjoyment as envisaged by the UN General Assembly Resolution and other instruments especially where environmental right is not explicitly provided for.¹⁰⁰

Taking lead from the Montana's Case,¹⁰¹ it does appear that there is a general understanding of the import of the right to clean and healthy environment no matter how it is described. Even if all a statute states are that *citizens shall have right to the environment* it should be interpreted by the courts¹⁰² to mean a right to an environment fit for human living, the courts being sufficiently able to draw the line between what environment is fit and what is not for human habitation.

REFERENCES

- Ako, R., 'Promoting Environmental Justice in Developing Countries: Thinking Beyond Constitutional Environmental Rights' p. 7 being a text of paper presented at the 3rd UNITAR-Yale Conference on Environmental Governance and Democracy, 5-7 September 2014, New Haven, USA
- Ako, R., "The Judicial Recognition and Enforcement of the Right to Environment: Differing Perspectives from Nigeria and India" (2010) 3 NUJS Law Review 426
- Alan Boyle, "Human Rights or Environmental Rights? A Reassessment" 1-2 <http://www.law.ed.ac.uk/file-download/publications/0-221humanjusticeorenvironmental rightsreassess.pdf> accessed 2 May 2015

¹⁰⁰ Some constitutions, such as South Africa explicitly provide for the progressive realization of some environmental rights. See generally Wet and Plessis n66, 345- 376.

¹⁰¹ Montana v DEQ n39.

¹⁰² For instance, in South Africa, the Constitutional Court had interpreted section 24 of the South African Constitution to the effect that the section implies that environmental rights should be accorded recognition and respect even in administrative processes. *The Director: Mineral Development, Gauteng Region and Sasol Mining (Pty) Ltd v Save the Vaal Environment and Others* (1999) 2 SA 709 (SCA).

- Alero T Akujobi, 'Human Rights: The Environment and Sustainable Development in Nigeria' in MOU Gasiokwu (edn), Ecology: Concept, Politics, and Legislation (Chenglo Books, 2013) 464.
- Amechi, EP, 'Litigating Right to Healthy Environment in Nigeria: An Examination of the Impacts of the Fundamental Rights (Enforcement Procedure) Rules 2009, in Ensuring Access to Justice for Victims of Environmental Degradation' (2010) 6 (2) Law, Environment and Development Journal 322-334
- Anderson, A and T Kolk, 'The Role of Basic Rights in Environmental Protection' <https://www.juridicainternational.eu/public/pdf/ji>2003_1_140.pdf > accessed 13 August 2022
- Ashwin Kumar, 'Ecological Environment: The Sociological Perspective' (2005) 10 (2) Journal of Applied Social Science 101
- Ayesha Dias, 'Human Rights, Environment and Development: With Special Emphasis on Corporate Accountability' <https://hdr.undp.org/system/files/documents//ayeshadiaspdf.pdf> accessed 15 August 2022
- Bircher, J, *Towards a Dynamic Definition of Health and Disease* (Med. Health Care Philos, 2005) 335-341
- Boyd, DR, 'The Constitutional Right to a Healthy Environment' (2012) 54 (4) Science and Policy for Sustainable Development 3
- Boyle, A, 'The Role of International Law in the Protection of the Environment' in A Boyle & M Anderson (eds.), 'Human Rights Approaches to Environmental Protection' (Oxford University Press, 1996)
- Brown E. Umukoro 'Gas Flaring, Environmental Corporate Responsibility and the Right to a Healthy Environment' in Festus Emiri & Gowon Deinduomo (eds), *Law and Petroleum Industry in Nigeria- Current Challenges* (Malthouse Press Ltd 2008) 49-64
- Brown E. Umukoro, 'The Ogidigben EPZ Gas Project and the Environment: Health and Human Rights Implications' (2017) Ajayi Crowther University Law Journal, 1- 38
- Charles Hall, 'Ecology,' The Encyclopedia of Earth (2014) <https://editors.eol.org/eoearth/wiki/Ecology_(Biology)> accessed 14 August 2022
- Cullet, P, 'Definition of an Environmental Right in a Human Right Context' (1995) 13 Netherlands Quarterly of Human Rights 30
- Dinah Shelton, 'Human Rights, Health & Environmental Protection: Linkages in Law & Practice (2007) 1 Human Rights and International Legal Discourse 9
- Ebeku, K. S. A., 'The Right to a Satisfactory Environment and the African Commission' (2003) 3 African Human Rights Law Journal 149-166
- Ebobrah, ST, 'The Future of Economic, Social and Cultural Rights Litigation in Nigeria' (2007) 1 (2) CALS Review of Nigerian Law and Practice 108-124
- Ekhator, EO, 'Improving Access to Environmental Justice under the African Charter on Human and Peoples' Rights: The Roles of NGOs in Nigeria'

(2104) 22 (1) African Journal of International and Comparative Law 63–79

- Emejuru, T, 'Human Rights or the Environment: Whither Nigeria' (2015) 35 Journal of Law, Policy and Globalization 19-27
- Erik de Wet and Anél du Plessis, 'The Meaning of Certain Substantive Obligations Distilled from International Environmental Rights in South Africa (2010) 10 Africa Human Rights Law Journal 346
- Erin Daly, 'Constitutional Protection for Environmental Rights: The Benefits of Environmental Process' (2012) 17 International Journal of Peace Studies 76
- Folarin Shyllon, *The Law and the Environment in Nigeria* (Ibadan: UI Press, 1989)
- Jaime Nester, 'Word-Meaning and the Contest Principle in the Investigations' 245 <http://wab.uib.no/ojs/index.php/agoraalws/article/view/2725/3174> accessed 15 August 2022
- James R May and Erin Daly, 'Vindicating Fundamental Environmental Right Worldwide' (2009) Oregon Review of International Law 364-440
- Jegede, MI, 'What's Wrong with the Law?' (1993) NIALS Annual Lecture Series 12 at 2
- Jelili A Omotola (ed.), 'Environmental Laws in Nigeria including Compensation' (Lagos: Faculty of Law, University of Lagos, 1990) 201
- Karen E. MacDonald, 'Sustaining the Environmental Rights of Children: An Exploratory Critique' (2006) 18 (1) Fordham Environmental Law Review 7
- Ladan, MT, 'A Critical Appraisal of Judicial Attitude towards Environmental Litigation and Access to Environmental Justice in Nigeria, 20 being a text of paper presented at the 5th IUCN Academy Global Symposium, Rio de Janeiro, Brazil, 2007 <http://adu.edu.ng/publications/2009-07-03-15041_3901.doc> accessed 12 July 2022
- Linde, M and L Louw, 'Considering the interpretation and implementation of article 24 of the African Charter on Human and Peoples' Rights in light of the SERAC communication' (2003) 3 African Human Rights Law Journal 167-187
- Martin Joe Ezeudu, "Revisiting Corporate Violations of Human Rights in Nigeria's Niger Delta Region: Canvassing the Potential Role of the International Criminal Court" (2011) 11 African Human Rights Law Journal 36
- Michael Allaby, 'Oxford Dictionary of Ecology' (3rd edn, Oxford University Press 2005) 154
- Nijhawan, S, "Human Rights to a Clean Environment." (Unpublished Essay) submitted to the Faculty of Law and Social Sciences (London: School of Oriental and African Studies, 2004) pp. 3-4, <www.subin.de/enviromen.pdf> accessed 14 January 2015
- Okorodudu-Fubara, M, *Law of Environmental Protection* (Caltop Publications, 1998) 80

- Oluduro, O, 'Environmental Rights: A Case Study of the 1999 Constitution of the Federal Republic of Nigeria' (2010) 4 Malawi Law Journal 255-270
- Onvizu, W, 'International Environmental Law, the Public's Health, and Domestic Environmental Governance in Developing Countries' (2005) 21 American University International Law Review 666
- Orji, UJ, 'Right to a Clean Environment Some Reflections' (2012) 42 Environmental Policy and Law 4–5
- Otubu, A, 'Environment and Human Rights: An Overview of current Trends in Nigeria' (2013) 2 The Nigerian Journal of Public Law 211
- Pierre-Marie Dupuy and Jorge E., 'Viñuales, International Environmental Law: A Modern Introduction' (Cambridge University Press 2015) 24.
- Ramade, F., 'Dictionaire Encyclopedique de l'ecologie et des Sciences de l'environnment' (Dunod 2002) 279
- Razzaque, J, 'Human Rights and the Environment: Developments at the National Level South Asia and Africa' (2002) *Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment* 14-16 January 2002 Geneva, https://www.researchgate.net/profile/Jona-Razzaque/publication/255967177_Human_Rights_and_the_Environment_The_National_Experience_InSouth_Asia_an_Africa/links/5771 017808ae842225abfdb9/Human-Rights-and-the-Environment-The-National-Experience-InSouth-Asia-and-Africa.pdf> accessed 15 August 2022
- Rhoda Mushkat, 'Contextualizing Environmental Human Rights: A Relativist Perspective' (2009) 26 Pace Environmental Law Review 122
- Rodriguez-Rivera, EL, 'Is the Human Right to Environment Recognized under International Law? It Depends on the Source' (2001) Colorado International Environmental Law and Policy 1
- Saracci, R, "The World Health Organization needs to Reconsider its Definition of Health" (1997) BMJ 409-410
- Shelton, D, 'Developing Substantive Environmental Rights' (2010) 1 (1) Journal of Human Rights and the Environment 89
- Shelton, D, 'Human Right and Environment: What Specific Environmental Rights have been Recognized?' (2008) 35 (1) Denver Journal of International Law and Policy 129
- Sohn, LB, 'The Stockholm Declaration on Human Environment' (1973) 14 The Harvard International Law Journal 425-426
- Taylor, PE, 'From Environmental to Ecological Human Rights: A New Dynamic in International Law?' (1998) 10 Georgetown International Environmental Law Review 309, 360
- Thompson Jr., BH, 'Constitutionalizing the Environment: The History and Future of Montana 's Environmental Provisions' (2003) 64 Montana Law Review 157-198, <http://scholarship.law.umt.edu/cgi/viewcontent.cgi?article=2290& context=mlr> accessed 27 January 2015
- UN News, 'UN General Assembly declares access to clean and healthy environment a universal human right' (28 July 2022)

Conceptual Challenges to the Recognition and Enforcement of the Right to Clean, Safe and Healthy Environment

<https://www.un.org/africarenewal/magazine/july-2022/ungeneral-assembly-declares-access-clean-and-healthy-environmentuniversal-human> accessed 15 August 2022

- Weston, BH and D Bollier, 'Toward a Recalibrated Human Right to a Clean and Healthy Environment: Making the Conceptual Transition' (2013) 4 (2) Journal of Human Rights and the Environment 117
- Weston, BH and DA Bollier, 'Regenerating the Human Right to a Clean and Healthy Environment in the Commons Renaissance' 14, <https://www.ritimo.org/IMG/pdf/Regenerating-Essay-Part1.pdf> accessed 16 August 2022

Conceptual Challenges to the Recognition and Enforcement of the Right to Clean, Safe and Healthy Environment

AUTHORS' DECLARATIONS AND ESSENTIAL ETHICAL COMPLIANCES

Contribution	Author 1	Author 2
Conceived and designed the research or analysis	Yes	No
Collected the data	Yes	No
Contributed to data analysis & interpretation	Yes	No
Wrote the article/paper	Yes	Yes
Critical revision of the article/paper	Yes	Yes
Editing of the article/paper	Yes	Yes
Supervision	Yes	No
Project Administration	Yes	No
Funding Acquisition	No	No
Overall Contribution Proportion (%)	70	30

Authors' Contributions (in accordance with ICMJE criteria for authorship)

Funding

No funding was available for the research conducted for and writing of this paper.

Research involving human bodies (Helsinki Declaration)Has this research used human subjects for experimentation?No

Research involving animals (ARRIVE Checklist) Has this research involved animal subjects for experimentation? No

Research involving Plants

During the research, the authors followed the principles of the Convention on Biological Diversity and the Convention on the Trade in Endangered Species of Wild Fauna and Flora. Yes

Research on Indigenous Peoples and/or Traditional Knowledge

Has this research involved Indigenous Peoples as participants or respondents? No

(Optional) PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)

Have authors complied with PRISMA standards? Yes

Competing Interests/Conflict of Interest

Authors have no competing financial, professional, or personal interests from other parties or in publishing this manuscript.

RIGHTS AND PERMISSIONS

Open Access. This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third-party

Conceptual Challenges to the Recognition and Enforcement of the Right to Clean, Safe and Healthy Environment

material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0/.



JOURNAL OF ENVIRONMENTAL LAW & POLICY | 02:02 AUGUST 2022 Published by The Grassroots Institute, in partnership with Yaroslav Mudriy National Law University of Ukraine, and in collaboration with Northern Institute of Minority & Environmental Law, University of Lapland. Website: http://grassrootsjournals.org/jelp

> OPEN ACCESS Freely available online M – 00304 | Analytical Article

INTERNATIONAL LAW APPLICATION TO TRANSBOUNDARY POLLUTION: SOLUTIONS TO MITIGATE MINING CONTAMINATION IN THE ELK-KOOTENAI RIVER WATERSHED

Kieran Simpson*

Schulich School of Law, Dalhousie University, Halifax NS, Canada. Email: kieran.simpson@dal.ca | ORCID: https://orcid.org/0000-0001-7970-0090

Ben R. Collison

School for Resource and Environmental Studies, Dalhousie University, Halifax NS, Canada. Email: b.collison@dal.ca | ORCID: https://orcid.org/0000-0003-0433-0819 *Corresponding author

Received: 09 July 2022 | Accepted: 30 July 2022 | Published: 31 August 2022

ABSTRACT

The Elk Valley is home to five of the six largest mines in British Columbia, with ongoing plans for further expansion. These headwater coal mines have contributed to selenium pollution in the freshwater ecosystems of the transboundary Elk -Kootenai River watershed, evidenced in part by the \$60 million fine imposed on Teck Resources Ltd. under Canada's Fisheries Act in 2021 for the 'deposit of deleterious substances'. Indigenous communities, including the Ktunaxa Nation, and various other organizations on both sides of the border, alongside governments in the United States, have been calling for higher standards of mining pollution control originating in Canada and for the International Joint Commission to make recommendations on this issue. Two agreements exist between the countries that may be relevant here, including the Boundary Waters Treaty (1909) and Columbia River Treaty (1964). In this article, these agreements describing the potential role of the International Joint Commission are analyzed, along with the outlining of the current process for this organization to make recommendations to resolve this ongoing, hot-button issue. The examples from case law and other international agreements pertaining to pollution are used to formulate a two-part conclusion in the form of (1) a short-term solution to effectively communicate and facilitate a resolution of transboundary mining pollution in the Elk - Kootenay River watershed; (2) a long-term solution to settle future disagreements regarding transboundary pollution between Canada and the United States.

Keywords: International law; Environmental law; Transboundary impacts; Mining pollution; International Joint Commission; United States; Canada

How to cite this paper: Kieran Simpson, and Ben R. Collison, 'International Law Application to Transboundary Pollution: Solutions to Mitigate Mining Contamination in The Elk-Kootenai River Watershed' (2022) 02 (02) Journal of Environmental Law & Policy 29-55 <https://doi.org/10.33002/jelp02.02.02>

Copyright © 2022 by author(s). This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <u>http://creativecommons.org/licenses/by/4.0/</u>



Editor-in-Chief: Prof. Dr. Kamrul Hossain | *Deputy Editors-in-Chief:* Dr. Evgeniya Kopitsa, Prof. Dr. Ngozi Finette Unuigbe | *Executive Editor:* Dr. Hasrat Arjjumend

1. INTRODUCTION

One year ago, the headlines read, "Teck Coal given record-breaking \$60 million fine for contaminating BC rivers," as media outlets broke down the largest fine ever imposed under Canada's federal Fisheries Act (ss. 36(3)), prohibiting the deposit of deleterious substance.¹ The company, Teck Resources Ltd., hereafter referred to as "Teck", was found to have been polluting the Fording River in south-eastern British Columbia (BC) with selenium at concentrations well above BC's safety guidelines or the permissible limits granted by the Government of the Province of BC for almost a decade.² Teck's four coal mines in question are located in the rural Elk Valley, approximately 130 kilometres from the Canada-United States Roosville border crossing. From the upper Fording River watershed, where the highest selenium levels were found, water flows into the Elk-Kootenai River watershed, a drainage that straddles BC and Montana (USA) and is part of the larger Columbia River Basin that flows into the Pacific Ocean. While the BC Provincial Court handed Teck their \$60 million fine, Teck has yet to answer to selenium pollution flowing into Montana, and it is unsure when or if they will.³

There are few agreements or cases that can be applied to this issue. One agreement, over a century old, is the Boundary Waters Treaty of 1909 ("BWT").⁴ Under the BWT, the International Joint Commission ("IJC") was established to solve issues over transboundary water between Canada and the United States. Another treaty, which has been under negotiations to modernize for several years, applies only to this specific area at issue: the Columbia River Treaty ("CRT").⁵ Here, we seek to determine if either of these agreements can apply to this issue; what is the possible role of the IJC? What has prior case law said on the subject of transboundary pollution and use of the IJC? If no solution is apparent through these means, are there other international laws or policies that can apply to this situation?

A solution is needed to address the contentious international aspect of this issue, but it is unclear whether existing international agreements help reaching a solution. After discussing the history of selenium pollution in the Elk Valley and Lake Koocanusa, what progress, if any, has been made so far

¹ Environment and Climate Change Canada, "Teck Coal ordered to pay \$60 million under the Fisheries Act and must comply with a Direction requiring reduction measures," <https://bit.ly/3Jgx5Cc> [ECCC Investigation]; Bob Weber, "Teck Coal given record-breaking \$60M fine for contaminating BC rivers," The Canadian Press (March 26, 2021), <https://globalnews.ca/news/7721674/coal-teck-fined-contaminating-bc-rivers/> [Weber]; Ainslie Cruickshank, "Teck fined \$60 million for water pollution in BC's Elk Valley," The Narwhal (March 26, 2021), <https://bit.ly/3Ian3kV> [Cruickshank 2021]; Fisheries Act, RSC 1985, c F-14, s 1 [Fisheries Act]; R v Teck Coal Limited, 2021 BCPC 118 [R v Teck].

² ECCC Investigation, *supra* note 1; Weber, *supra* note 1.

³ Ainslie Cruickshank, "Teck is fighting Montana pollution rules it doesn't have to follow. Why? Look to BC," The Narwhal (February 2, 2022), <https://thenarwhal.ca/teck-resources-seleniumfight-montana/> [Cruickshank, 2022].

⁴ The Boundary Waters Treaty of 1909, Canada & US, January 11, 1909, *International Joint Commission* [BWT].

⁵ Columbia River Treaty, Canada & US, January 17, 1961, came into force September 16, 1964 [*CRT*].

to solve this issue, and how issues of transboundary pollution have been solved in the past between Canada and the United States, we analyze different approaches to reaching a solution, such as through the BWT and IJC. The IJC has been called on in the past to help reach conclusions for similar issues and should be again here as we conclude it is the most effective existing agreement; however, evaluating the role of the IJC raises another problem: The BWT is not an effective agreement for dealing with transboundary pollution between Canada and the United States. It is recommended that the BWT undergoes amendments to better consider and resolve transboundary pollution issues.

2. BACKGROUND

2.1 Selenium Pollution from Coal Mines in the Elk Valley, BC

The Elk Valley has a rich, mining history. Coal mining has occurred in the Elk Valley since 1898, with Teck operating the Fording River mine and Greenhills mine since 1971 and 1981, respectively.⁶ When the Fording River mine was built, settling ponds were built nearby as an attempt to minimize sediment deposits in the river resulting from the mine; however, fish, including the Westslope Cutthroat trout (*Oncorhynchus clarkii lewisi*), which is a species listed as a "species of special concern" under Canada's *Species at Risk Act*, eventually made their way into the ponds, signifying the inability to ensure the ponds remained disconnected from the Fording River.⁷ In addition, waste rock from the mines can often precipitate dissolved calcium and selenium when exposed to oxygen or water.

Selenium is a naturally occuring, non-metal trace mineral that is found naturally in many living organisms, including humans, required in trace amounts for normal body function.⁸ Selenium is often precipitated into water systems as a byproduct of surface mining operations due to overburden waste rock storage and exposure to gradual weathering over time, resulting in accumulations that can be toxic in high concentrations.⁹ The element has a tendency to bioaccumulate in the food chain of freshwater ecosystems where inorganic selenium becomes bioavailable to higher tropic levels in its organic form after ingestion and interaction with primary producers (e.g., bacteria and phytoplankton).¹⁰ For context, selenium concentrations in the Fording River have recently been as high as 208 micrograms per litre (μ g/L;

⁶ R v Teck, supra note 1 at para 2.

⁷ *Ibid*, at para 5; *Species at Risk Act*, SC 2002, c 29 [*SARA*].

⁸ Krystyna Pyrzynska & Aleksandra Sentkowska, "Selenium in plant foods: Speciation analysis, bioavailability, and factors affecting composition" (2021) 61 (8) Critical Reviews in Food Science and Nutrition 1340-1352, https://doi.org/10.1080/10408398.2020.1758027>.

⁹ Jacqueline R Gerson, and others, "Mercury and selenium loading in mountaintop mining impacted alkaline streams and riparian food webs" (2020) 150 (1) Biogeochemistry 109-122, https://doi.org/10.1007/s10533-020-00690-7>.

¹⁰ Thomas R Cianciolo, and others, "Selenium bioaccumulation across trophic levels and along a longitudinal gradient in headwater streams" (2020) 39 (3) Environmental Toxicology and Chemistry 692-704, https://doi.org/10.1002/etc.4660; Dominic E Ponton, and others, "Selenium interactions with algae: Chemical processes at biological uptake sites, bioaccumulation, and intracellular metabolism" (2020) 9 (4) Plants 528, https://doi.org/10.3390/plants9040528>.

February, 2021), more than twice their permitted discharge limit (90 μ g/L) and significantly higher than BC's 'safe for aquatic life' limit of 2 μ g/L;¹¹ yet just upstream of the mines, selenium concentrations typically rest around 1 μ g/L.¹²

The issue of selenium pollution also has a history in the Elk Valley. Selenium was first discovered in the Fording River in 1995.13 However, it was still close to a decade before scientific consensus found that high selenium concentrations could be harmful to the biotic environment. In 2012, Environment and Climate Change Canada ("ECCC") determined through water quality and fish sampling that the Upper Fording River had selenium levels within a range categorized as "adverse effects."¹⁴ Studies on selenium, its concentrations, and preventative measures had been conducted for years prior through independent expert studies and by Teck's own employees.¹⁵ In 1995, when it was discovered that soluble selenium was mobilizing due to the waste rock, there were "990 million cubic metres of waste rock placed in the Fording River and Greenhills mines."16 That number increased to 2.2 billion cubic metres by 2008, 2.5 billion by 2011, and 2.62 billion by 2012.17 Teck was also given approval for an amendment to their Fording River mine certificate (under the BC Environmental Assessment Act) in 2017 to increase the amount of waste rock stored at the facility, transferred from the Greenhills operation.¹⁸ Though, 2012 is an important year, because in 2012, Teck admitted depositing a deleterious substance into the Fording River.

Teck's \$60 million fine in 2021 under *Fisheries Act* was formulated only in relation to the year 2012. However, it was recognized that pollution occurred, at the very least, between a timeframe of 2009 to 2021.¹⁹ Since 2012, Teck has also been charged two times under the *Environmental Management*

¹¹ British Columbia, AJ Downie, Director of Mining Authorizations, *Permit 107517* under the *Environmental Management Act*,

https://j200.gov.bc.ca/pub/ams/download.aspx?PosseObjectId=139003236>.

² Weber, *supra* note 1; Cruickshank 2022, *supra* note 3; *R v Teck, supra* note 1 at para 8, 9 & 10; ECCC Investigation, *supra* note 1; Weber, *supra* note 1; Cruickshank 2021, *supra* note 1; Behnaz Rezaie, & Austin Anderson, "Sustainable resolutions for environmental threat of the acid mine drainage" (2020) 717 Science of the Total Environment 137211, https://doi.org/10.1016/j.scitotenv.2020.137211 [Rezaie & Anderson]; Nosa O Egiebor & Ben Oni, "Acid rock drainage formation and treatment: a review" (2007) 2 (1) Asia-Pacific Journal of Chemical Engineering 47-62, https://doi.org/10.1016/j.scitotenv.2020.137211 [Rezaie & Anderson]; Nosa O Egiebor & Ben Oni, "Acid rock drainage formation and treatment: a review" (2007) 2 (1) Asia-Pacific Journal of Chemical Engineering 47-62, https://doi.org/10.1016/j.scitotenv.2020.137211 [Rezaie & Show, "Biological remediation of acid mine drainage: Review of past trends and current outlook" (2020) 2 Environmental Science and Ecotechnology 100024, https://doi.org/10.1016/j.ese.2020.100024 [Rambabu et al].

¹³ R v Teck, supra note 1 at para 11.

¹⁴ Environment and Climate Change Canada, "Teck Coal Limited ordered to pay \$60 million under the Fisheries Act and must comply with a Direction requiring pollution reduction measures" https://bit.ly/3Jgx5Cc> accessed August 29, 2022.

¹⁵ *Ibid*, at para 12 & 13.

¹⁶ R v Teck, *supra* note 1 at para 11.

¹⁷ *Ibid*.

¹⁸ Ben R Collison, Patrick A Reid, Hannah Dvorski, Mauricio J Lopez, Alana Westwood, & Nikki Skuce, "Undermining environmental assessment laws: post-assessment amendments for mines in British Columbia, Canada, and potential impacts on water resources" (2022) 7 (1) FACETS 611-638, <https://www.facetsjournal.com/doi/full/10.1139/facets-2021-0106> [Collison et al].

¹⁹ R v Teck, *supra* note 1 at para 22.

Act,²⁰ and ordered by the Minister of Environment to create an Elk Valley Water Quality Plan.²¹ These charges were laid because of continuous damage resulting from selenium and calcite from waste rock, harm to species in the Fording River and the larger watershed, and harm identified to the Ktunaxa Nation in their traditional territory by polluting their water supply.²²

2.2 International Aspect of the Issue

The Ktunaxa Nation traditional territory spans across the Kootenay Region of BC, including the Elk Valley, Fording River and Lake Koocanusa, and through the states of Montana, Idaho, and Washington.²³ European settlement led to the creation of the present six Bands: four solely in BC and two within the United States.²⁴ In R v Teck, Vickie Thomas, the operational director of the Ktunaxa Nation Council Lands Sector, provided a statement in which she said, "Ktunaxa believe that they must care for all living things, and in doing so, we must ensure that the water is clean and pure as it is the giver of life."25 Thomas followed by identifying concerns about water quality and the safety for Ktunaxa to consume contaminated fish and impair their fishing rights.²⁶ In her address to the court she also said this pollution had led to "alienation of [her] people from [their] lands and waters."27 This harm identified by the Ktunaxa Nation in their traditional territory was cited as an aggravating factor in determining Teck's fine.²⁸ In 2013, Teck and the Ktunaxa Nation signed a joint management agreement to conserve 700 hectares of land Teck had just purchased; they agreed to manage the land for conservation purposes to protect fish and wildlife habitat.²⁹ This includes land on the Canada side of the Canada-United States border near the Elk-Kootenai watershed and Lake Koocanusa.

Lake Koocanusa, downstream of the Fording and Elk rivers, spans the Canada-US border between BC and Montana. In 2020, Montana's Department of Environmental Quality determined that 95 percent of selenium entering the lake came from the Elk River.³⁰ This assessment delivered by Kelly and Sullivan (2020) had been worked on since 2015 in partnership with BC officials, local Indigenous peoples and scientists.³¹ This study proposed a selenium standard of 0.8 μ g/L , and the level in Lake

²⁰ *Ibid*, at para 26; *Environment Management Act*, SBC 2003, c 54.

²¹ British Columbia, Minister of Environment, *Ministerial Order No. M113* (April 15, 2013), under the *Environmental Management Act*, SBC 2003, c 54, s 89, 90.

²² R v Teck, *supra* note 1 at para 23.

²³ R v Teck, supra note 1 at para 16; Ktunaxa Nation, "Who We Are," <https://www.ktunaxa.org/who-we-are/> accessed August 2, 2022 [Ktunaxa Nation].

²⁴ Ktunaxa Nation, *supra* note 23.

²⁵ R v Teck, supra note 1 at para 16 & 17.

²⁶ *Ibid*.

²⁷ Weber, *supra* note 1.

²⁸ R v Teck, supra note 1 at para 23.

²⁹ *Ibid*, at para 27.

³⁰ Cruickshank 2022, *supra* note 3; Myla Kelly & Lauren Sullivan, September 24, 2020, "Establishing Selenium Standards for Lake Koocanusa and Kootenai River that Protect Aquatic Life," Montana Department of Environmental Quality, <https://deq.mt.gov/files/DEQAdmin/BER/Documents/AGENDA/DEQ_SMS.pdf> [Kelly & Sullivan].

³¹ Cruickshank 2022, *supra* note 3; Kelly & Sullivan, *supra* note 29.

Koocanusa as of 2020 was $1 \mu g/L$ and slowly increasing.³² After negotiation, Montana, BC and the Ktunaxa Nation Council agreed to a selenium standard of 0.85 $\mu g/L$ in the Koocanusa reservoir and Montana officially adopted these new limits in December of 2020; however, because Teck's coal mines are located in Canada, they are not subject to Montana's state rules.³³ While BC approved the 0.85 $\mu g/L$ standard, BC water quality guidelines, which are not legally binding, are still $2 \mu g/L$.³⁴ Lawyers for Teck submitted a petition to the Board of Environmental Review in Montana opposing the new Montana standard, arguing it is illegal and targets their mining operations.³⁵ Several environmental organizations and Montana's Department of Environmental Quality wrote to the Board in support of the standard.³⁶ To date, the Board of Environmental Review has not reached a conclusion and the transboundary pollution conflict remains unresolved.

2.3 Historical Dealings of Transboundary Harm between Canada and the United States

No transboundary pollution issue between Canada and the United States can be assessed without reference to the Trail Smelter case.³⁷ This case is described as a "touchstone for international environmental law," and it is often the only case cited in instances of transboundary damage settled by applying international law principles on State liability for cross-border damage.³⁸ This case was over an issue of air pollution from a smelter in Trail, BC, causing damage to Washington State farmlands for 13 years.³⁹ Canada and the United States brought the matter before the IJC under Article 9 (looking for a recommendation but not a decision), and the IJC recommended the American farmers be paid \$350,000 as compensation for the damages from air pollution.⁴⁰ The countries then submitted this case to a separate special arbitration tribunal in 1935, where Canada agreed to pay the damages recommended by the IJC that were supported by the tribunal. In 1941, during the tribunal's final decision, they stated that "no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence."41 This case established several international environmental law principles, including: the state has a duty to

³² Cruickshank 2022, *supra* note 3; Kelly & Sullivan, *supra* note 29.

³³ Cruickshank 2022, *supra* note 3.

³⁴ *Ibid*.

³⁵ Cruickshank 2022, *supra* note 3.

³⁶ *Ibid*.

 ³⁷ Arthur K Kuhn, "The Trail Smelter Arbitration—United States and Canada (1941)" (1938) 32 (4)
 The American Journal of International Law 785-788 [Trail Smelter Arbitration].

³⁸ Rebecca Bratspies & Russell Miller, *Transboundary Harm in International Law*, 2006, Cambridge: Cambridge University Press, p.3 [Bratspies & Miller]; Jutta Brunnée, "Review of *Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration* by Rebecca M Bratspies, Russell A Miller" (2008) 102 (2) The American Journal of International Law 395-400, Cambridge: Cambridge University Press, p.395 [Brunnée].

³⁹ Bratspies & Miller, *supra* note 38 at page 27.

⁴⁰ Bratspies & Miller, *supra* note 38 at page 27 & 28; Brunnée, *supra* note 38 at page 395.

⁴¹ Trail Smelter Arbitration, *supra* note 37; Bratspies & Miller, *supra* note 38 at page 127.

prevent transboundary harm, and the "polluter pays" principle requiring the polluting state to pay for transboundary damage they cause.⁴² Many international agreements have ever since adopted these principles; however, no agreements between Canada and the United Stated have included these principles. The existing agreements between Canada and the United States that may be relevant are discussed next.

2.4 Agreements Regarding Transboundary Pollution between Canada and the United States

The Boundary Waters Treaty, 1909

The BWT was signed between Canada and the United States to settle disputes between the two countries over the rights, obligations, and interests of each other regarding the use of boundary waters.⁴³ The Preliminary Article of the BWT defines "boundary waters" as "waters from main shore to main shore of the lakes and rivers and connecting waterways, or the portions thereof, along which the international boundary between the United States and Canada passes...,"⁴⁴ which, using this definition, would include the Elk-Kootenai watershed. Applying the BWT to pollution issues, the relevant article is Article IV, which prohibits pollution to boundary waters on either side if it would injury health or property of the other side.⁴⁵ This is recognized as the "first international pollution treaty in history" by some, but it should also be noted that the main priority is not to prohibit pollution, but to protect the rights of each country.⁴⁶

Since its inception, the BWT has regulated and solved disputes regarding boundary waters between the two countries. This has largely been done through the IJC, which was formed as a permanent Commission under the BWT and is responsible for its implementation.⁴⁷ The IJC has many vital roles as established under the BWT. Article VII establishes that the IJC "shall have jurisdiction over and shall pass upon all cases involving the use or obstruction or diversion of the waters with respect to which under Article III or IV..."⁴⁸ This establishes, therefore, that the IJC is to control and decide on "uses or obstructions or diversions, temporary or permanent" of boundary waters on either side and construction, such as dams or pollution along any boundary waters.⁴⁹

⁴² Trail Smelter Arbitration, *supra* note 37; Bratspies & Miller, *supra* note 38 at page 3. -u-s-officials/> [Lavoie].

⁴³ *Ibid*.

⁴⁴ *Ibid*, preliminary article.

⁴⁵ *Ibid*, art IV.

⁴⁶ Commissioner Gordon Walker, QC, "The Boundary Waters Treaty 1909—A Peace Treaty?" (2015) 29 Canada—United States Law Journal 170 [Walker].

⁴⁷ BWT, *supra* note 4, art VII.

⁴⁸ BWT, *supra* note 4, art VIII.

⁴⁹ BWT, *supra* note 4, arts III &IV.

The BWT and IJC have played essential roles in resolving issues of transboundary pollution between Canada and the United States for over a century (the *Trail Smelter* dispute, for example), and continue to do so.⁵⁰

Columbia River Treaty, 1964

The CRT was ratified in 1964 as an agreement between Canada and the United States primarily as a transboundary water management agreement for the Columbia River Basin, specifically regarding development.⁵¹ This is important to the region for two reasons: power generation and flood control, both were of upmost importance in the region.⁵² The CRT was deemed necessary after several disastrous floods in the late 1940s and 1950s, including the Vanport City, Oregon flood which killed 50 people and resulted in over \$102 million in damages (equivalent to over \$900 million now).⁵³ The CRT allowed for rapid development of flood control systems that could also produce hydroelectricity.

While the CRT may have been important for flood control and has been positively viewed in some ways, local Indigenous peoples were excluded in the creation of the CRT and many local First Nations communities experienced loss because of flooding to create new reservoirs and facilities for hydropower. The building of dams under the CRT also changed the ecology of the rivers in the Columbia River system, blocked salmon from migrating and flooded cultural territory.⁵⁴ In 2018, Canada and the United States began negotiations to modernize the treaty by 2024, focused on addressing concerns about environmental impacts and Indigenous rights.⁵⁵ On January 10, 2022, Canada and the United States met for the 12th round of negotiations; the latest informal meeting was on May 17, 2022.56 While the CRT does not explicitly relate to selenium pollution from coal mines in the Elk Valley, the Elk-Kootenai watershed is within the greater Columbia River watershed boundary, and given the contentious ongoing negotiations to amend it, it should be considered. Other international agreements and cases on transboundary pollution may be relevant to this issue, but our analysis will focus on these agreements and cases, which we believe to be the most pertinent international resources to discuss the case of transboundary selenium pollution mining operations in southern British Columbia.

⁵⁰ Some more case examples where the IJC were called on to solve transboundary pollution issues are expanded upon in the analysis section of this paper.

⁵¹ CRT, *supra* note 5, preamble.

⁵² Alice Cohen & Emma S Norman, "Renegotiating the Columbia River Treaty: Transboundary Governance and Indigenous Rights," (2018) 18 (4) Global Environmental Politics 4-24, p.11 [Cohen & Norman].

⁵³ James M Hundley, "Whither an International Issue: The Columbia River Treaty, the Canada/US Border, and the Curious Case of Libby, MT" (2020) 35 (5) Journal of Borderlands Studies, 801-818 [Hundley].

⁵⁴ Cohen & Norman, *supra* note 52, at page 15.

⁵⁵ Bob Keating & Tom Popyk, "Calls to terminate Columbia River Treaty sparks concern after 2 years of negotiations," CBC News, 2018 [Keating & Popyk].

⁵⁶ British Columbia, *Columbia River Treaty News*, <https://engage.gov.bc.ca/columbiarivertreaty/> accessed August 2, 2022.

3. ANALYSIS AND APPLICATION OF INTERNATIONAL LAW

3.1 The International Joint Commission Should be Called Upon for Recommendations

The IJC is already aware of the issue of selenium pollution and Montana's increasing concern about its effect on Lake Koocanusa.⁵⁷ In 2016, the BC Auditor General, Carol Bellringer, stated that the Ministry of Environment had been monitoring selenium levels in the Elk Valley for 20 years, but because there is no regulatory oversight, no necessary action has been taken to solve the problem.⁵⁸ In 2018, two US commissioners on the IJC released a letter to the US State Department stating Canada's three representatives would not endorse a report showing risk to aquatic and human life in Lake Koocanusa from selenium pollution. These US commissioners accused BC of negligence in addressing the issue of selenium pollution and said they are at risk of violating the BWT.59 Additionally, Teck and the BC government are required to regularly perform water testing in the area, but this data is not made available to the public; these US representatives on the IJC criticized this testing process, stating that Teck and Canadian representatives were "suppressing science."60 As such, the apparent lack of transparent, peer-reviewed scientific monitoring that is independent from Teck and the BC government is a significant concern in this case.⁶¹ The IJC has knowledge of the selenium pollution issue and knows that there is ongoing conflict between Montana and BC (therefore, Canada and the US), yet they have not provided recommendations to solve the issue. However, the real issue is that the IJC has not been asked to provide recommendations.

While the IJC commissioners are aware of the issue and seemingly in dispute themselves, they cannot do anything under the treaty because the treaty is not self-activating. Canada and the United States must jointly decide to invoke the treaty if they think a project may affect such things as water levels, water flow, and water quality by sending the issue to the IJC for investigation.⁶² Article X states that the two countries may *jointly* request a reference to the IJC on any matters they disagree on under the treaty over the "rights, obligations, or interests" of either countries or their citizens.⁶³ As mentioned, BC has yet to update its water quality guidelines to follow the selenium standard of 0.85 μ g/L; BC will not likely take any action, or request

⁵⁷ Judith Lavoie, "Canada suppressing data on coal mine pollution, says US officials," The Narwhal (July 4, 2018), https://thenarwhal.ca/canada-suppressing-data-on-coal-mine-pollution-say-u-s-officials/ [Lavoie].

⁵⁸ Ibid.

⁵⁹ Ibid; Chloe Williams, "From Canadian Coal Mines, Toxic Pollution That Knows No Borders," 2019, https://e360.yale.edu/features/from-canadian-coal-mines-toxic-pollution-that-knows-noborders> [Williams].

⁶⁰ Lavoie, *supra* note 57.

⁶¹ Erin K Sexton, et al, "Canada's mines pose transboundary risks" (2020) 368 (6489) Science 376-377, <https://doi.org/10.1126/science.abb8819>.

⁶² Walker, *supra* note 46.

⁶³ BWT, *supra* note 4, art X; Robert Wright, "The Boundary Waters Treaty: A Public Submission Process Would Increase Public Participation, Accountability, and Access to Justice" (2008) 54 Wayne L Rev 1609 [Wright].

the federal government to call upon the IJC for recommendations, if their selenium standard is not updated first.⁶⁴ However, the issue remains that if BC is to update their standard for Lake Koocanusa, it is still Canada that must request the IJC recommendations in partnership with the US. Though, since studies began analyzing selenium levels in the lake around 2015, there has been increasing concern from the US side and local Indigenous people and increasing tension between all sides because Canada has not been interested in calling on the IJC;⁶⁵ if the IJC is not called upon for recommendations, tensions between Canadian and American counterparts will likely only increase as they make their contradicting arguments to the wind.⁶⁶

One aspect of the BWT that can be blamed for lack of calling on the IJC is the vague mention of pollution despite attempts of the IJC to adopt stronger recognition of environmental concerns. Currently, the BWT states that concerns over pollution is engaged under the agreement only when it could cause injury to the health or property of the other country.⁶⁷ This suggests not a general prohibition against pollution, but rather a protection of rights afforded to each country; pollution is not prohibited until it harms the other side.⁶⁸ It is understandable, then, why BC has been hesitant to adopt a water quality standard that would support the accusation of harmful pollution from a company in their jurisdiction and why Teck has been so adamant against Montana's new standard.

The BWT has continued to use this vague definition of pollution, but the IJC has slowly moved forward toward an ecosystem approach to addressing local concerns by creating the International Watersheds Initiative ("IWI").⁶⁹ The IWI is an approach of the IJC to resolving transboundary water issues through partnership with local communities affected by a given issue out of recognition those closest to issues will likely have more knowledge and understanding of how the specific ecosystem functions, and how it has been impacted.⁷⁰ Canada also developed the *International Boundary Waters Treaty Act* ("*BWT Act*"), recognizing First Nations treaty rights as affirmed under section 35 of the *Constitution Act*.⁷¹ There is mention

⁶⁴ Cruickshank 2022, *supra* note 3.

⁶⁵ Karen E Jenni, David L Naftz & Theresa S Presser, 2017, Conceptual modeling framework to support development of site-specific selenium criteria for Lake Koocanusa, Montana, U.S.A., and British Columbia, Canada: U.S. Geological Survey Open-File Report 2017–1130, 14 p., <https://doi.org/10.3133/ofr20171130>; Tristan Scott, "Canada Walks Back Position on IJC Reference for Kootenai Coal Mine Contamination," Flathead Beacon (May 20, 2022), <https://flatheadbeacon.com/2022/05/20/canada-walks-back-position-on-ijc-reference-forkootenai-river-contamination/> [Scott]; Ainslie Cruickshank, "Canada flip-flops amid calls for international investigation into B.C. coal mine pollution," The Narwhal (May 26, 2022), <https://thenarwhal.ca/teck-coal-mining-ijc-ktunaxa/> [Cruickshank, May 2022].

⁶⁶ Williams, *supra* note 59.

⁶⁷ BWT, *supra* note 4, art IV.

⁶⁸ Walker, *supra* note 46.

⁶⁹ Walker, *supra* note 46; *International Watersheds Initiative*, International Joint Commission (IJC), online: ">http://www.ijc.org/en_/IWI> [IWI].

⁷⁰ IWI, *supra* note 69.

⁷¹ Walker, supra note 46; International Boundary Waters Treaty Act, RSC 1985, c I-17, s 21 [BWT Act]; Constitution Act, 1982, being Schedule B to the Canada Act 1982 (UK), 1982, c 11 [Constitution].

in the BWT Act of environmental concerns specifically over the "bulk removal" of water within section 12, but other than this there are only vague mentions of environmental concerns as aggravating factors under section 36(2).⁷² For example, section 36(2)(a) states that an offence causing "damage or risk of damage to the environment" is an aggravating factor; section 36(2)(c) states if the damage was "extensive, persistent or irreparable," it is also an aggravating factor.73 While it may appear promising, these provisions offer several issues: they are only listed as aggravating factors for an offence under the BWT, and environmental damage or harm does not trigger an offence on its own; these factors are still vague, with no standard or definition to suggest what constitutes environmental damage, or what is meant by "extensive, persistent or irreparable" (s. 36(2)). Therefore, while the IJC attempts to move forward and modernize, the BWT still only consists of one vague article on pollution, and the BWT Act only introduces vague mentions of environmental harm that are solely aggravating factors and not triggering factors. The BWT has existed for over a century now in its current form, while the law and world it operates around have changed drastically.74

If the IJC were called upon for recommendations, they would likely consider both Indigenous rights and concerns over environmental harm, given their evolution to an ecosystem-based approach.75 Even back in 1975, when called upon to evaluate the effects of the Garrison Diversion on Canadian waters, the IJC demonstrated their ability to modernize by considering risks of irreversible damage to the environment and adopting the precautionary approach.76 The IJC is not the issue; what needs improvements is the triggering of the BWT and the considerations under the treaty that should result in consulting the IJC. Under the current treaty, neither Indigenous concern nor environmental harm is reason enough, and consulting the IJC is only necessary if there is harm to the health or property of people. Additionally, while the IJC can enforce the BWT, jurisdictions cannot force each other to respect recommendations or decisions of the IJC;77 both countries seem to prefer only using the IJC for recommendations, so they may refuse to accept the recommendations provided if it does not fit with political agendas, economic objectives, or other environmental and social factors. There needs to be more power afforded to the IJC to execute the BWT and provide recommendations regardless of whether both Canada and the United States call upon them. Providing self-execution to the IJC could solve many problems such as the case of transboundary pollution in Lake Koocanusa, or in the case of Devils Lake where the IJC was asked to "survey fish pathogens and parasites in Devils Lake, the Sheyenne and Red

⁷² *BWT Act, supra* note 71, s 12 & 36(2).

⁷³ *Ibid*, s 36(2)(a) & 36(2)(c).

⁷⁴ Noah D Hall, "The Centennial of the Boundary Waters Treaty: A Century of United States-Canadian Transboundary Water Management" (2008) 54 Wayne L Rev 1417 [Hall].

⁷⁵ IWI, *supra* note 69.

⁷⁶ Andrea Signorelli, "Devils Lake Outlet and the Need for Canada and the United States to Pursue a New Bilateral Understanding in the Management of Transboundary Waters" (2011) 34 Manitoba Law Journal 183 [Signorelli].

⁷⁷ Signorelli, *supra* note 76.

Rivers, and Lake Winnipeg in order to better understand their potential risk of transference from Devils Lake to downstream systems.¹⁷⁸ In the Lake Koocanusa case, even allowing a single party to invoke the IJC rather than needing a joint agreement to request the IJC's recommendations would result in the IJC being involved.

3.2 Case Law: Calling on the IJC to make Recommendations would Facilitate Solutions

Looking back to Trail Smelter, calling on the IJC for recommendations can facilitate discussions between Canada and the United States, leading to a solution, whether through arbitration or not. The arbitration tribunal, who decided the case, adopted the damages recommended by the IJC. The IJC recommendations also helped facilitate discussions in the tribunal that established key international principles of transboundary pollution and international law. Notably, the tribunal concluded that in the debate over following domestic law or international law, in a matter of transboundary pollution, the domestic law should be in conformity with general international rules.79 Additionally, they stated that it was Canada's responsibility to ensure the smelter's conduct adhered to international law obligations.⁸⁰ In the Lake Koocanusa case, this would suggest a responsibility of Canada to ensure Teck is not polluting Montana waters. The tribunal reached these conclusions with helpful recommendations from the IJC, and summarized their reasoning with what is now known as the Trail Smelter principles: the state has a duty to prevent transboundary harm, and the polluter pays principle recognizing polluting states should pay compensation for transboundary harm they cause.⁸¹ If these principles are to be followed in the case of selenium pollution in Lake Koocanusa, they both support that Canada needs to take action to prevent pollution flowing from Teck's mines and provide compensation for any damage already caused.

While the *Trail Smelter* principles were important to set precedence through the issue of transboundary pollution in international law, and demonstrated the benefits of calling on the IJC for recommendations, the established principles have potentially vague application as the arbitration tribunal stated other things that contradict those principles. For example, by saying that only when a "case is of serious consequence and the injury is established by *clear and convincing evidence*" can a state intervene, they suggest that producers still have the right to do what is necessary to maximize production and economic benefit.⁸² Therefore, while some key international pollution principles have come from this case, there have also been many critical views of *Trail Smelter* for its failure to impose an

⁷⁸ Signorelli, *supra* note 76; International Joint Commission, "IJC releases report on fish parasites and pathogens in Devils Lake, the Sheyenne and Red Rivers, and Lake Winnipeg" (October 27, 2011), https://www.ijc.org/en/ijc-releases-report-fish-parasites-and-pathogens-devils-lake-sheyenne-and-red-rivers-and-lake.

⁷⁹ Hall, *supra* note 74.

⁸⁰ *Ibid*.

⁸¹ Bratspies & Miller, *supra* note 38 at page 3.

⁸² Trail Smelter Arbitration, *supra* note 37; Bratspies & Miller, *supra* note 38 at page 18.

obligation to prevent damage.⁸³ Because of this, it is difficult to apply to cases of transboundary pollution currently unless clear evidence of damage has occurred; it introduced an obligation to pay for pollution but not to prevent it from the outset. The threshold of transboundary environmental effects "of a serious consequence" is inherently ambiguous.⁸⁴ Because of this, *Trail Smelter* could be used to support Canada paying for damages to the United Stated because of Teck pollution, but the case can also be used as support for the use of the IJC.

The eventual fine required to be paid by Canada in *Trail Smelter*, and the international pollution principles that came from the case, stemmed from the research and recommendations of the IJC. The IJC's investigation was conducted by scientists from both countries who presented scientific impacts on the pollution.⁸⁵ While it did take some time to reach a final decision even after the IJC provided their recommendations, these recommendations facilitated the final discussions and tribunal decisions. Since *Trail Smelter*, the IJC has continued to help solve disputes between Canada and the United States and examples show how the IJC has attempted to modernize while the BWT has not.

Past cases the IJC have been involved in demonstrate the ability of the IJC to help facilitate solutions and show their willingness to adopt more modern principles over time. In 1944 a study and recommendations by the IJC eventually led to the creation of the CRT.⁸⁶ In 1975, the IJC was asked for recommendations and evaluations on the effect of the Garrison Diversion on Canadian waters.⁸⁷ The IJC's conclusion in the 1975 Garrison Diversion case was that a project involving water transfer between basins should not proceed "unless and until Governments agree that methods had been proven that would eliminate the risk of biota and disease were no longer of concern" and that the project does not proceed until then.88 The IJC adopted a precautionary approach after concluding that the risk of irreversible damage caused by foreign biota was inconclusive as it was impossible to measure all effects.⁸⁹ Ultimately, these IJC recommendations were not adopted; however, these recommendations illustrate the IJC's adaptability and openness to adopt modern principles. While not explicitly using the precautionary principle, the conclusion that a project should not proceed unless a "risk" is "no longer of concern" is following the principle. Regardless, the recommendations still facilitated further discussion between the countries. Notably, the issue and ideas in the Garrison Diversion Project were discussed in the later Devils Lake Outlet case mentioned above.⁹⁰ More

⁸³ Bratspies & Miller, *supra* note 38 at page 126.

⁸⁴ *Ibid*, at page 129.

⁸⁵ Bratspies & Miller, *supra* note 38 at page 28.

⁸⁶ Hall, *supra* note 74; International Joint Commission, "History of the IJC,"

https://ijc.org/en/who/history accessed August 2, 2022 [IJC History].

⁸⁷ Signorelli, *supra* note 76.

⁸⁸ IJC History, *supra* note 86; Embassy of Canada in Washington, *Canada's Statement to the International Joint Commission* (Washington: Embassy of Canada, 2005),

<http://www.canadainternational.gc.ca/washington>, as cited in Signorelli, *supra* note 76.
Signorelli, *supra* note 76.

⁹⁰ Ibid.

recently, and regarding an issue close to Lake Koocanusa, the IJC provided recommendations for a proposed mine in the Elk Valley, stating that it should not be approved until there were no potential impacts on the trout fishery in the Flathead River.⁹¹

While IJC recommendations and investigations are not required to be followed, the suggestions made by the IJC are respected and historically have at the very least, facilitated further discussion between Canada and the United States over a given dispute. However, this discussion also illustrates that, while the IJC is attempting to modernize, the BWT remains unchanged. Ironically, the CRT, another transboundary treaty relevant to the area at issue, which was created and signed as a direct result of discussions and cooperation of the IJC,⁹² is already undergoing amendments despite being created 50 years after the BWT.

3.3 The Columbia River Treaty is not Applicable to the Situation but Supports Reform of the Boundary Waters Treaty

Unfortunately, the CRT is not applicable to this case; however, amending of the CRT supports possibly amending the BWT, and the CRT may be applicable once amendments are finished. The CRT is a specific treaty governing flood control, infrastructure, electricity and energy production and does not address the issue of pollution. While Lake Koocanusa is within the Columbia River system, and the Libby Dam (southern end of the lake) was created through this treaty, there is no provision in the treaty that can help solve the conflict over selenium pollution in Lake Koocanusa. Before the CRT was formed, flooding was largely only an issue in the United States. The creation of the CRT demonstrates that there can be international solutions to issues once viewed as solely domestic ones.93 Given the ongoing negotiations to amend the treaty, notably to address concerns about environmental impacts and Indigenous rights, the amended product could apply to pollution issues in Lake Koocanusa upon the 2024 release, or, at the very least, support amending the BWT.94 Of course, there is no certainty as to what the amendments will include.

When the CRT was first created, many important factors were not considered, and issues are now apparent with the approach taken to damning the rivers and preventing flooding. For example, grizzly bears were separated onto either side of newly formed lakes, which resulted in two weaker breeding populations, and bull trout numbers are continually dropping because these lakes are not natural and do not have the necessary nutrients to sustain all life.⁹⁵ One of these lakes is Lake Koocanusa, formed

⁹¹ IJC History, *supra* note 86.

⁹² Hall, *supra* note 74.

⁹³ Hundley, *supra* note 53.

⁹⁴ Keating & Popyk, *supra* note 55.

⁹⁵ Hundley, *supra* note 53; Vaughn L Paragamian & Jody P Walters, "Bull trout (Salvelinus confluents) movements in a transboundary river" (2011) 26 (1) Journal of Freshwater Ecology 65-76, https://doi.org/10.1080/02705060.2011.553854> [Paragamian & Walters]; Ryan P Kovach, et al, "Long-term population dynamics and conservation risk of migratory bull trout in the upper

by the damning of the Kootenai River. It is possible that if environmental concerns are to be included in CRT amendments, any environmental issue within a body of water formed by the damning of waterways through the CRT could fall under the control of the newly amended CRT.

A notable goal of amending the CRT is to ensure that Indigenous Nations in the Columbia Basin have their interests reflected in the treaty.⁹⁶ This could also provide support the CRT having some jurisdiction over Lake Koocanusa and other water bodies formed by dams in the Columbia River system in cases of pollution because the Ktunaxa, for example, could hopefully raise concerns about pollution within the Columbia River system under the CRT. As already mentioned, the damning of the Kootenai River, which formed the Koocanusa reservoir, resulted in the harm of several species which were of importance to First Nations, including kokanee salmon and bull trout.⁹⁷ CRT amendments are occurring, in part, out of recognition of harm caused to local Indigenous peoples and their traditional territory, including their food and water supply.

While amendments are focused on including considerations of both Indigenous rights and environmental concerns, it is not clear what these amendments will look like, and it remains unclear if they will aid in preventing or controlling selenium pollution. Even if they addressed pollution in water bodies formed by damning waterways in the Columbia River system, selenium pollution is unrelated to infrastructure, which the CRT controls. A key takeaway from an analysis of the CRT's possible role in this issue should be that if a 1964 treaty can undergo significant amendments to include both Indigenous rights and environmental concerns, why can a 1909 treaty, which clearly needs to be modernized, not undergo similar amendments as well?

3.4 What can We Learn and Apply from Other International Agreements?

There are no other applicable treaties that can be directly used to solve the transboundary selenium pollution because Canada and/or the United States is not a party to any agreements that could be relevant. However, while no treaties apply directly to the issue at hand, there are several that can be looked to for possible suggestive amendments to the BWT, including the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses ("UN Watercourses Convention"),⁹⁸ the 1992 United Nations Economic Commission for Europe Convention on the Protection and Use of Transboundary Watercourses and International Lakes ("UNECE Water

Columbia River basin" (2018) 75 (11) Canadian Journal of Fisheries and Aquatic Sciences 1960-1968, https://doi.org/10.1139/cjfas-2017-0466> [Kovach et al].

⁹⁶ BC Government, "Canada, US continue Columbia River Treaty talks," BC Gov News, January 12, 2022, https://news.gov.bc.ca/releases/2022EMLI0002-000041>.

⁹⁷ Hundley, *supra* note 53; Randy Ericksen, et al, 2009, "Status of Kokanee Populations in the Kootenai River in Idaho and Montana and South Arm Kootenay Lake, British Columbia," *Contract report prepared for the Kootenai Tribe of Idaho 30p*.

⁹⁸ Convention on the Law of the Non-navigational Uses of International Watercourses, United Nations, 21 May 1997, UN GA 51 229 No 49 (entered into force 17 August 2014) [UN Watercourses Convention].

Convention"),⁹⁹ the Berlin Rules on Water Resources ("Berlin Rules"),¹⁰⁰ and the United Nations Declaration on the Rights of Indigenous Peoples ("UNDRIP").¹⁰¹

The International Court of Justice ("ICJ"), the official "judicial organ" of the United Nations tasked with settling international legal disputes submitted to it could,¹⁰² in theory, be requested to decide on the issue. However, similar to the IJC, cases have to be referred to the ICJ by the parties involved,¹⁰³ so both countries would have to agree to refer the case. Given that a court decision would be binding, it is unlikely either country would prefer this outcome over coming to an agreement together. Therefore, the ICJ has no real power or ability to help solve this problem. For this reason, we have chosen not to look at ICJ cases in this paper and instead we focus on illustrating key principles that could be taken from the above agreements when considering what amendments could be included in the BWT to make it more effective at resolving transboundary pollution issues between Canada and the United States.

1997 UN Watercourses Convention

The 1997 UN Watercourses Convention cannot be applied to the Lake Koocanusa dispute because neither Canada nor the United States is a party to the Convention, but it can be looked to for possible BWT amendments. It is unclear why neither country is a party to Convention; perhaps it is because the UN Watercourses Convention provides more weight to countries with a greater population and economic activity, which contradicts the equality provided in the BWT.¹⁰⁴ Or, perhaps Canada and the United States take issue with the greater access to shared waters. It is unfortunate that the countries are not parties, and the principles within the Convention cannot apply, but equality between the two countries in the BWT is also an important aspect that should remain; as it stands, Commissioners in the BWT reach decisions based on consensus, requiring at least one Commissioner from the other country to be in the quorum.¹⁰⁵ Regardless, some of the key principles and provisions from the UN Watercourses Convention should be considered in a BWT amendment process, especially the cooperative nature of the Convention which is based on the idea of limited territorial sovereignty.¹⁰⁶

Under the UN Watercourses Convention, specific definitions are provided for key terms that are likely to arise in cases, which aids in solving

⁹⁹ Convention on the Protection and Use of Transboundary Watercourses and International Lakes, United Nations Economic Commission for Europe, 17 March 1992 (entered into force 6 October 1996) [UNECE Water Convention].

¹⁰⁰ Berlin Rules on Water Resources, "Berlin Conference (2004): Water Resources Law," International Law Association, 21 August 2004 [Berlin Rules].

¹⁰¹ United Nations Declaration in the Rights of Indigenous Peoples, adopted by the UN General Assembly, 2 October 2007, A/RES/61/295 No 68 [UNDRIP].

¹⁰² International Court of Justice, "The Court," online: https://www.icj-cij.org/en/court accessed August 2, 2022; United Nations, *Statute of the International Court of Justice*, 18 April 1946, art 1, https://www.icj-cij.org/en/court accessed August 2, 2022; United Nations, *Statute of the International Court of Justice*, 18 April 1946, art 1, https://www.icj-cij.org/en/court accessed August 2, 2022; United Nations, *Statute of the International Court of Justice*, 18 April 1946, art 1, https://www.icj-cij.org/en/court accessed August 2, 2022; United Nations, *Statute of the International Court of Justice*, 18 April 1946, art 1, https://legal.un.org/avl/pdf/ha/sicj/icj_statute_e.pdf> [Statute of ICJ].

¹⁰³ Statute of ICJ, *supra* note 102 at art 36(1).

¹⁰⁴ Walker, *supra* note 46.

 $^{^{105}}$ Ibid.

¹⁰⁶ Signorelli, *supra* note 76.

transboundary disputes; the BWT can draw on these. First, under Article 21, a pollutant is considered anything that could alter the quality of downstream waters.¹⁰⁷ One of the criticisms of the BWT has been its vague provisions, notably article IV where pollution is mentioned. A definition such as this one provided in the UN Watercourses Convention would greatly benefit the BWT, making it more applicable to transboundary pollution issues, as the lack of an explicit definition of pollution under the BWT has made it difficult to assess conflicts correctly.¹⁰⁸ Additionally, Article 7 of the Convention adopts the polluter pays principle.¹⁰⁹ The BWT does not include the polluter pays principle, yet the IJC appears to already recognize the principle; adopting it into the BWT would create less conflict between the BWT and IJC and provide more guidance for the IJC to make recommendations.

While many other articles in the Convention could be relevant to the BWT, two of the most important amongst the rest are Articles 8 and 9. These articles state there is a general duty for States to cooperate with one another and watercourse States will regularly exchange data and information related to the condition of a watercourse.¹¹⁰ This would positively apply to the selenium pollution issue and could dissolve the conflict between Canadian and American IJC Commissioners due to accusations of the Canadian side withholding information and preventing this issue.¹¹¹ Lastly, it should be noted that Article 21 of the Convention presents several provisions for the prevention and reduction of pollution; for example, Article 21(2) explicitly states that a watercourse State shall "prevent, reduce and control the pollution of an international watercourse that may cause significant harm to other watercourse States or to their environment."¹¹² These are simple provisions recognizing the duty to prevent and reduce pollution causing harm to other States that could easily be adopted into an amended BWT.

1992 UNECE Water Convention

Like the UN Watercourses Convention, the UNECE Water Convention cannot be directly applied to this situation, as neither Canada nor the United States is a party to it, but it does provide more examples of general provisions that an amended BWT should include to effectively address transboundary pollution issues. The UNECE Water Convention efficiently describes the detailed duties of each party to the Convention under Article 2; for example, Article 2, section 2(a) states that parties shall take all appropriate measures "to prevent, control and reduce pollution of waters causing or likely to cause transboundary impact."¹¹³ While this is a general obligation for parties, it does more than the BWT to identify the obligations of parties regarding pollution as there is a specific definition provided for "transboundary

¹⁰⁷ UN Watercourses Convention, *supra* note 98 at art 21; Signorelli, *supra* note 76.

¹⁰⁸ Signorelli, *supra* note 76.

¹⁰⁹ UN Watercourses Convention, *supra* note 98 at art 7.

¹¹⁰ UN Watercourses Convention, *supra* note 98 at art 8 & 9.

¹¹¹ Lavoie, *supra* note 57.

¹¹² UN Watercourses Convention, *supra* note 98, art 21(2).

¹¹³ UNECE Water Convention, *supra* note 99, art 2, s 2(a).

impact" under Article 1.¹¹⁴ Also of note is section 5, which specifically states the parties in the Convention will apply both the precautionary principle and polluter-pays principle.¹¹⁵ As a transboundary water agreement, these principles should be essential in the BWT; as mentioned, the IJC has adopted both principles in decisions and recommendations, so again, by making these amendments to the BWT there will be less conflict between the BWT and how the IJC has evolved.

Lastly, another key aspect the BWT could integrate is Article 5 of the UNECE Water Convention, which encourages cooperative research and development between States; for example, under (d), parties should cooperate to research and develop a technique for "phasing out and/or substituting substances likely to have a transboundary impact."¹¹⁶ A provision like this would facilitate better cooperation between Canada and the United States and encourage more use of the IJC.

Berlin Rules

The Berlin Rules is a summary of international laws currently in existence that apply to freshwater resources adopted by the International Law Association; a useful resource summarizing key provisions governing transboundary waters and pollution in particular that could be of interest for BWT amendments. Chapter III of the Berlin Rules should be of particular interest to BWT amendments as it consists of provisions on internationally shared waters.¹¹⁷ First, under Article 10, States that share an international water basin have the right to participate in the management of its waters "in an equitable, reasonable, and sustainable manner."¹¹⁸ This is another simple provision that would be a useful addition to the BWT and aid in preventing issues such as selenium pollution in Lake Koocanusa because of the focus on sustainably managing the waters and equal right to do so. Article 11 requires basin States to cooperate in good faith over the management of transboundary waters.¹¹⁹ As suggested in commentary on the Berlin Rules, this provision speaks for itself as it would be impossible for States to share transboundary water resources sustainably without this type of obligation.¹²⁰ The BWT could use more recognition of an obligation of good faith between Canada and the United States to ensure shared resources are handled sustainably. Next, Article 12 requires the management of waters in an international basin in an "equitable and reasonable manner having due regard for the obligation not to cause significant harm to other basin States."121 Again, a principle that would hopefully facilitate greater respect for shared water resources if incorporated into the BWT.

¹¹⁴ *Ibid*, art 1.

¹¹⁵ *Ibid*, art 2, s 5.

¹¹⁶ UNECE Water Convention, *supra* note 99 at art 5(d).

¹¹⁷ Berlin Rules, *supra* note 100 at page 18.

¹¹⁸ *Ibid*, art 10(1) at page 18.

¹¹⁹ Berlin Rules, *supra* note 100, art 11 at page 19.

¹²⁰ *Ibid*, at page 20.

¹²¹ *Ibid*, art 12 at page 20.

The Berlin Rules also establish the factors that should be considered when determining what is "equitable and reasonable use" and these factors support the prioritization of using transboundary water to "satisfy vital human needs" and the populations "dependent on the waters of the international drainage basin."¹²² While there are other factors listed, these stand out. First, prioritizing water use to satisfy vital human needs suggests that this should come first if it is needed as drinking water. In the case of selenium pollution, the Ktunaxa Nation arguably had some of their water resources polluted.¹²³ This provision of the Berlin Rules could be aligned with the goals and provisions of UNDRIP, detailed more below, which promote sustainability and health, and should be looked to as a provision to adopt in the BWT. The factor requiring consideration of the population dependent on the water resource also supports this.

United Nations Declaration on the Rights of Indigenous Peoples

On June 21, 2021, Bill C-15, known as "An Act respecting the United Nations Declaration on the Rights of Indigenous Peoples" ("UNDRIP"), received royal assent.¹²⁴ Through this Act, Canada recognized UNDRIP and committed to implementing it in legislation. Some possible provisions under UNDRIP that should be recognized are, first, Article 8(2), which provides that States will prevent or provide redress for any action depriving Indigenous peoples of "their integrity as distinct peoples," or "any action dispossessing them of resources."¹²⁵ Studies have already illustrated the negative effects of selenium pollution on both the water quality and fish stocks in the Elk River system and Koocanusa watershed, both of which are resources of the Ktunaxa Nation.¹²⁶ Articles such as this should be adopted into the BWT to ensure that not only is UNDRIP respected but that Indigenous peoples are afforded the equality they have been promised.

There are several other UNDRIP Articles that should be looked to. Article 18 exemplifies the equality promised to Indigenous peoples stating, "Indigenous peoples have the right to participate in decision-making matters affecting their rights."¹²⁷ Under the current circumstances of the selenium pollution issue, if this is to be truly respected by Canada, this should suggest that the Ktunaxa Nation, whose traditional territory spans both sides of the Canada-US border around Lake Koocanusa, should have the right to participate alongside Canada and the United States under the BWT now that UNDRIP has been recognized, meaning they could also request the IJC get involved. Under Article 26, Indigenous peoples have the right to use or occupy the lands and resources of their traditional territories, and States shall give legal recognition and protection to these lands and resources.¹²⁸ The

¹²² *Ibid*, art 13(2)(c) & 14 at page 21.

¹²³ *R v Teck*, *supra* note 1 at para 16 & 17.

 ¹²⁴ Bill C-15, An Act respecting the United Nations Declaration on the Rights of Indigenous Peoples, 2nd sess, 43rd Part, 2021 (assented to 21 June 2021).

¹²⁵ UNDRIP, *supra* note 101, art 8(2).

¹²⁶ Ktunaxa Nation, *supra* note 22.

¹²⁷ UNDRIP, supra note 101 at art 18.

¹²⁸ *Ibid*, art 26.

Ktunaxa Nation traditional territory covers the entirety of Lake Koocanusa.¹²⁹ While the United States has not adopted UNDRIP, if Canada is to respect their commitment to UNDRIP, this should include the entirety of the Ktunaxa Nation traditional territory if they impact this territory through pollution in Lake Koocanusa. Regardless, the Ktunaxa Nation supported the Lake Koocanusa selenium standard of $0.85 \,\mu g/L;^{130}$ if they are to have equal decision-making power and their traditional territory be respected, this standard should be adopted on the Canadian side of the border, and they should have the option of requesting the IJC make recommendations.

4. CONCLUSION: A TWO-PART SOLUTION

Based on this analysis, two conclusions are reached regarding a solution to the issue of selenium pollution in Lake Koocanusa. These conclusions consist of (1) a short-term solution: hopefully facilitating discussions to conclude the Lake Koocanusa conflict and possibly a greater level of oversight and transparency in monitoring and data availability for selenium levels by calling on the IJC for recommendations; and (2) a long-term solution: necessary to solve future disagreements regarding transboundary pollution between Canada and the United States.

4.1 Short-Term Solution

First, specific to how a solution can be reached swiftly in the current case, the IJC needs to be called upon to provide recommendations. Given the recent studies on selenium in the Elk-Kootenai watershed,¹³¹ and the growing concern from Montana and American commissioners on the IJC,¹³² Canada and the US requesting recommendations is most likely to facilitate the necessary discussions to reach a solution. Clearly there is disagreement between the two countries with regards to how to address this problem and whether it is a problem at all, and recommendations from IJC would help facilitate a solution. Case law has shown that the IJC provides thorough and respected recommendations and the IJC has been modernizing itself. The IJC is likely equipped to handle environmental concerns and Indigenous rights matters. There are prominent examples of how solutions have been reached after IJC recommendations, such as in the case of *Trail Smelter*.

A recognizable issue, though, is that both countries need to be open to requesting recommendations from the IJC, but Canada is withholding. However, given Canada's recognition of s.35 *Constitution* rights under the *BWT Act*, their recognition of UNDRIP, and because both BC and the Ktunaxa Nation (who possess s.35 rights), have recognized and agreed to the selenium concentration standard of 0.85 μ g/L, Canada should jointly call upon the IJC for recommendations.

¹²⁹ Ktunaxa Nation, *supra* note 23.

¹³⁰ Cruickshank 2022, *supra* note 3; Kelly & Sullivan, *supra* note 30.

¹³¹ Weber, *supra* note 1; Cruickshank 2022, *supra* note 3; Rezaie & Anderson, *supra* note 8; Egiebor & Oni, *supra* note 8; Rambabu et al, *supra* note 8; Kelly & Sullivan, *supra* note 30.

¹³² Cruickshank 2022, *supra* note 3.

4.2 Long-Term Solution

Second, and most important for the future of transboundary water disputes between the countries, the BWT needs to be amended. At the very least, amendments need to include updating the treaty to include environmental concerns and Indigenous rights, and the IJC needs to have more power, even if this means the ability to self-execute or only require one party request recommendations rather than both. Key amendments need to include specific definitions of pollution. While Canada and the United States are not parties to the *1997 UN Watercourses Convention* or the *1992 UN Water Convention*, they can take key principles from these Conventions, along with the Berlin Rules and UNDRIP, to amend the BWT. Additionally, there should be a possibility for the IJC to be activated from any interested party rather than both parties jointly, such as in the 1997 Convention. While this is a tall order, it has been called for already.¹³³

We see the CRT going through substantial amendments, yet a treaty from 1909 remains unaltered. The CRT amendments show that an amendment process can and should include environmental concerns and Indigenous rights. The IJC is already beginning to reflect these concerns, but the BWT needs to provide them with the ability to be more involved in transboundary water disputes.

Canada handing down the largest fine under the *Fisheries Act* in Canadian history may have made for good press, but in the context of Canada-United States transboundary pollution agreements, this fine (pale in comparison to Teck's multi-billion dollar per year revenue stream) did little but bring the flaws of the century-old BWT to the surface.¹³⁴ The BWT does not need to become a transboundary pollution treaty, but if it is all Canada and the United States are going to have between them to address transboundary pollution, it needs to be amended.

¹³³ Signorelli, *supra* note 76.

¹³⁴ Teck, "Teck reports unaudited annual and fourth quarter results for 2021" (February 23, 2022), https://www.teck.com/news/news-releases/2022/teck-reports-unaudited-annual-and-fourth-quarter-results-for-2021>.

REFERENCES

- Berlin Rules on Water Resources, "Berlin Conference (2004): Water Resources Law," International Law Association, 21 August 2004
- Bill C-15, An Act respecting the United Nations Declaration on the Rights of Indigenous Peoples, 2nd sess, 43rd Part, 2021 (assented to 21 June 2021)
- Bratspies, Rebecca & Miller, Russell, *Transboundary Harm in International Law*, 2006, Cambridge: Cambridge University Press

British Columbia, "Canada, US continue Columbia River Treaty talks," BC Gov News, 12 January 2022,

<a>https://news.gov.bc.ca/releases/2022EMLI0002-000041>

- British Columbia, AJ Downie, Director of Mining Authorizations, *Permit* 107517 under the *Environmental Management Act*, https://j200.gov.bc.ca/pub/ams/download.aspx?PosseObjectId=139003236
- British Columbia, *Columbia River Treaty News*, https://engage.gov.bc.ca/columbiarivertreaty/
- British Columbia, Minister of Environment, *Ministerial Order No M113* (April 15, 2013), under the *Environmental Management Act*, SBC 2003, c 54, s 89, 90
- Brunnée, Jutta, "Review of Transboundary Harm in International Law: Lessons from the Trail Smelter Arbitration by Rebecca M Bratspies, Russell A Miller," (2008) 102 (2) The American Journal of International Law 395-400, Cambridge: Cambridge University Press
- Cianciolo, Thomas R, and others, "Selenium bioaccumulation across trophic levels and along a longitudinal gradient in headwater streams" (2020)
 39 (3) Environmental Toxicology and Chemistry 692-704, https://doi.org/10.1002/etc.4660
- Cohen, Alice & Norman, Emma S, "Renegotiating the Columbia River Treaty: Transboundary Governance and Indigenous Rights" (2018) 18 (4) Global Environmental Politics 4-24

Collison, Ben R, and other, "Undermining environmental assessment laws: post-assessment amendments for mines in British Columbia, Canada, and potential impacts on water resources" (2022) 7(1) FACETS 611-638, <https://www.facetsjournal.com/doi/full/10.1139/facets-2021-0106>

- Columbia River Treaty, Canada & US, January 17, 1961, came into force September 16, 1964
- Cruickshank, Ainslie, "Canada flip-flops amid calls for international investigation into B.C. coal mine pollution," The Narwhal (May 26, 2022), <https://thenarwhal.ca/teck-coal-mining-ijc-ktunaxa/>
- Cruickshank, Ainslie, "Teck fined \$60 million for water pollution in BC's Elk Valley," The Narwhal (March 26, 2021), <https://bit.ly/3Ian3kV>
- Cruickshank, Ainslie, "Teck is fighting Montana pollution rules it doesn't have to follow. Why? Look to BC," The Narwhal (February 2, 2022), https://thenarwhal.ca/teck-resources-selenium-fight-montana/

- Embassy of Canada in Washington, *Canada's Statement to the International Joint Commission* (Washington: Embassy of Canada, 2005), http://www.canadainternational.gc.ca/washington
- Environmental and Climate Change Canada, "Teck Coal Limited ordered to pay \$60 million under the Fisheries Act and must comply with a Direction requiring pollution reduction measures," <https://bit.ly/3Jgx5Cc>
- Ericksen, Randy, and others, 2009, "Status of Kokanee Populations in the Kootenai River in Idaho and Montana and South Arm Kootenay Lake, British Columbia," *Contract report prepared for the Kootenai Tribe of Idaho Fisheries Act*, RSC 1985, c F-14, s 1
- Gerson, Jacqueline R, and others, "Mercury and selenium loading in mountaintop mining impacted alkaline streams and riparian food webs" (2020) 150 (1) Biogeochemistry 109-122, https://doi.org/10.1007/s10533-020-00690-7
- Hall, Noah D, "The Centennial of the Boundary Waters Treaty: A Century of United States-Canadian Transboundary Water Management," 2008, 54 Wayne L Rev 1417
- Hundley, James M, "Whither an International Issue: The Columbia River Treaty, the Canada/US Border, and the Curious Case of Libby, MT" (2020) 35 (5) Journal of Borderlands Studies 801-818
- International Court of Justice, "The Court" <https://www.icjcij.org/en/court>
- International Joint Commission, "IJC releases report on fish parasites and pathogens in Devils Lake, the Sheyenne and Red Rivers, and Lake Winnipeg" (October 27, 2011),
- International Joint Commission, "History of the IJC" https://ijc.org/en/who/history
- International Watersheds Initiative, 'International Joint Commission (IJC)' ">http://www.ijc.org/en_/IWI>
- Jenni, Karen E; Naftz, David L & Presser, Theresa S, 2017, Conceptual modeling framework to support development of site-specific selenium criteria for Lake Koocanusa, Montana, U.S.A., and British Columbia, Canada: U.S. Geological Survey Open-File Report 2017–1130, <https://doi.org/10.3133/ofr20171130>
- Keating, Bob & Popyk, Tom, "Calls to terminate Columbia River Treaty sparks concern after 2 years of negotiations," CBC News, 2018
- Kelly, Myla & Sullivan, Lauren, "Establishing Selenium Standards for Lake Koocanusa and Kootenai River that Protect Aquatic Life" (September 24, 2020) Montana Department of Environmental Quality, https://deq.mt.gov/files/DEQAdmin/BER/Documents/AGENDA/DEQ_SMS.pdf>
- Kovach, Ryan P, and others, "Long-term population dynamics and conservation risk of migratory bull trout in the upper Columbia River

basin" (2018) 75 (11) Canadian Journal of Fisheries and Aquatic Sciences 1960-1968, https://doi.org/10.1139/cjfas-2017-0466

Ktunaxa Nation, "Who We Are," https://www.ktunaxa.org/who-we-are/

Kuhn, Arthur K, "The Trail Smelter Arbitration – United States and Canada (1941)" (1938) 32 (4) The American Journal of International Law 785-788

Lavoie, Judith, "Canada suppressing data on coal mine pollution, says US officials," The Narwhal (July 4, 2018), <https://thenarwhal.ca/canada-suppressing-data-on-coal-minepollution-say-u-s-officials/>

Nosa O Egiebor & Ben Oni, "Acid rock drainage formation and treatment: a review" (2007) 2 (1) Asia-Pacific Journal of Chemical Engineering 47-62, <https://doi.org/10.1002/apj.57>

- Paragamian, Vaughn L & Walters, Jody P, "Bull trout (*Salvelinus confluentus*) movements in a transboundary river" (2011) 26 (1) Journal of Freshwater Ecology 65-76, <https://doi.org/10.1080/02705060.2011.553854>
- Ponton, Dominic E, and others, "Selenium interactions with algae: Chemical processes at biological uptake sites, bioaccumulation, and intracellular metabolism" (2020) 9 (4) Plants 528, https://doi.org/10.3390/plants9040528

Pyrzynska, Krystyna & Aleksandra, Sentkowska, "Selenium in plant foods: Speciation analysis, bioavailability, and factors affecting composition" (2021) 61(8) Critical Reviews in Food Science and Nutrition, 1340-1352

Rambabu, K, and others, "Biological remediation of acid mine drainage: Review of past trends and current outlook" (2020) 2 Environmental Science and Ecotechnology 100024, <https://doi.org/10.1016/j.ese.2020.100024>

Rezaie, Behnaz & Anderson, Austin, "Sustainable resolutions for environmental threat of the acid mine drainage" (2020) 717 Science of the Total Environment 137211, <https://doi.org/10.1016/j.scitotenv.2020.137211>

- Scott, Tristan, "Canada Walks Back Position on IJC Reference for Kootenai Coal Mine Contamination" Flathead Beacon (May 20, 2022), <https://flatheadbeacon.com/2022/05/20/canada-walks-backposition-on-ijc-reference-for-kootenai-river-contamination/>
- Sexton, Erin K, and others, "Canada's mines pose transboundary risks" (2020) 368 (6489) Science 376-377, <https://doi.org/10.1126/science.abb8819>
- Signorelli, Andrea, "Devils Lake Outlet and the Need for Canada and the United States to Pursue a New Bilateral Understanding in the Management of Transboundary Waters," (2011) 34 Manitoba Law Journal 183
- Teck, "Teck reports unaudited annual and fourth quarter results for 2021" (February 23, 2022), https://www.teck.com/news/news-

releases/2022/teck-reports-unaudited-annual-and-fourth-quarterresults-for-2021>

- United Nations, *Statute of the International Court of Justice*, 18 April 1946, https://legal.un.org/avl/pdf/ha/sicj/icj_statute_e.pdf>
- Walker, Gordon, Commissioner QC, "The Boundary Waters Treaty 1909 A Peace Treaty?" (2015) 29 Canada – United States Law Journal 170
- Weber, Bob, "Teck Coal given record-breaking \$60M fine for contaminating BC rivers," The Canadian Press (March 26, 2021), <https://globalnews.ca/news/7721674/coal-teck-finedcontaminating-bc- rivers/>
- Williams, Chloe, "From Canadian Coal Mines, Toxic Pollution That Knows No Borders" 2019, https://e360.yale.edu/features/from-canadian-coal-mines-toxic-pollution-that-knows-no-borders
- Wright, Robert, "The Boundary Waters Treaty: A Public Submission Process Would Increase Public Participation, Accountability, and Access to Justice" (2008) 54 Wayne L Rev 1609

AUTHORS' DECLARATIONS AND ESSENTIAL ETHICAL COMPLIANCES

Contribution	Author 1	Author 2
Conceived and designed the research or analysis	Yes	No
Collected the data	Yes	No
Contributed to data analysis & interpretation	Yes	No
Wrote the article/paper	Yes	Yes
Critical revision of the article/paper	Yes	Yes
Editing of the article/paper	Yes	Yes
Supervision	Yes	No
Project Administration	Yes	No
Funding Acquisition	No	No
Overall Contribution Proportion (%)	85	15

Authors' Contributions (in accordance with ICMJE criteria for authorship)

Funding

No funding was available for the research conducted for and writing of this paper.

Research involving human bodies (Helsinki Declaration)Has this research used human subjects for experimentation?No

Research involving animals (ARRIVE Checklist)Has this research involved animal subjects for experimentation?No

Research involving Plants

During the research, the authors followed the principles of the Convention on Biological Diversity and the Convention on the Trade in Endangered Species of Wild Fauna and Flora. Yes

Research on Indigenous Peoples and/or Traditional Knowledge Has this research involved Indigenous Peoples as participants or respondents? No

(Optional) PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)

Have authors complied with PRISMA standards? Yes

Competing Interests/Conflict of Interest

Authors have no competing financial, professional, or personal interests from other parties or in publishing this manuscript.

RIGHTS AND PERMISSIONS

Open Access. This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third-party

material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit http://creativecommons.org/licenses/by/4.0/.



Aim & Scope

Journal of Environmental Law & Policy is an international, interdisciplinary journal that facilitates an understanding of environmental policy and law issues not only by drawing upon and contributing to the environmental social sciences, but also linking the ecosystem health, natural resources, and social sciences. The journal provides an exchange of information and experience on all legal, administrative, and policy matters relevant to the human and natural environment in its widest sense. It covers all aspects included in the concept of sustainable development. The aim of the journal is to promote communication among academia, government, business and industry, civil society groups, citizens' action groups, and non-governmental organizations who are instrumental in the solving of environmental problems and grassroots level issues. By bridging both academic and professional domains, the journal provides professionals, practitioners, researchers, students, and policymakers, and any other persons with information on developments in the field of international and regional environmental policy, environmental governance and environmental law – domestic as well as international/regional/global.

The journal's scope encompasses a wide range of environmental and natural resource issues, for example:

- biodiversity loss,
- climate change,
- desertification,
- environmental pollution and wastes,
- forest conservation,
- renewable and non-renewable natural resources,
- sustainability,
- transboundary pollutant flows,
- marine and fresh-water resources,
- land and water governance,
- natural resource accounting,
- resource and environmental economics,
- environmental social sciences,
- environmental policy matters,
- interface of environmental issues and social and economic issues
- any other having practical significance and policy relevance.









C O P E

SUBMISSION INFORMATION

Submit your paper to Journal of Environmental Law & Policy by email: jelp@grassrootsjournals.org Further instructions for authors are available on the journal's website: www.grassrootsjournals.org/jelp

Low Article Processing Fee

www.grassrootsjournals.org/jelp