

Water Ethics Roundtable Series

Strengthening the Field of Water Ethics

Proceedings of the Virtual Roundtable Held on Nov. 17, 2021

David Groenfeldt and Jessica Ferraioli (Editors)¹

Published by Water-Culture Institute, Santa Fe, New Mexico

2022

www.waterculture.org
info@waterculture.org

This is an open access publication distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original author and source are credited.

¹ Corresponding author: David Groenfeldt, dgroenfeldt@waterculture.org

Zoom Roundtable

Strengthening the Field of Water Ethics²

PART 1

Introduction and Participant Bios

David Groenfeldt

Let me offer brief perspective on why we are convening to discuss this particular topic of how to strengthen the field of water ethics into a recognizable field of study and professional application. Just as we have medical ethicists to advise on medical treatment and research protocols, and technology ethicists to consider how best to use artificial intelligence, we can imagine a future where we have water ethicists as a job category within water resources management. In this scenario, the field of water resources management would be comprised not only of hydrologists, economists, engineers, lawyers, ecologists and social scientists, but also ethicists. The idea of "water ethicist" as a job category is a nice way of looking at the potential for the field of water ethics to become more applied and practically engaged in water policy. This is one of the trends we can talk about.

Before we start introducing ourselves, let me say a word about how participants were selected for this roundtable on "strengthening the field of water ethics". Prospective participants were identified through their books, articles, conference papers and blog posts that address some aspect of water ethics and utilize the term "water ethics". We wanted to provide a space for dialogue among scholars and/or activists who self-identify, at least to some extent, as contributing to the nascent field of water ethics. This resulted in a list of 30 names, who were invited to comment on a Concept Note (The final version of the Concept Note is attached as Annex 2) and to suggest other names to contact. Next, we conducted a Doodle pole to find a time that would work for as many time zones as possible. In the end, we convened a small but lively group of 13 participants for the Zoom meeting on November 17, 2021.

Following is the transcript of (1) the self-introductions of the participants and (2) the substantive discussion which is loosely structured around the questions given in the roundtable Agenda (attached as Annex 1). Each participant was asked to briefly give their name, affiliation, and discuss their particular interest within the field of water ethics.

Jie Liu

I'm Jie Liu from the Center for Water Research at Peking University. My background is hydrogeology with a focus on groundwater modeling and management. Fourteen years ago, when I had finished my PhD degree at the University of Alabama in the US, I came back to China, Beijing, and the first project I got involved in was a water ethics project, funded by

² This roundtable was held on 17 November 2021. Hosted by Water-Culture Institute (WCI), the roundtable was moderated by David Groenfeldt, WCI Director. These proceedings were transcribed and edited by David Groenfeldt and Jesse Ferraioli, WCI Intern.

UNESCO. It dealt with water ethics, in the northwestern part of China. This is a coal based region with quite intensive coal mining, and that had a huge impact on the environment and water resources. So I started looking at the water ethics in that ecologically fragile region. But after that, I haven't done any further work related to water ethics, explicitly. It's all embedded with my other research work related to groundwater.

Evelyne Fiechter-Widemann

I am Evelyne Fiechter-Widemann, president of the Workshop for Water Ethics in Geneva and a lawyer who defended cases at the courts in Geneva and Basel. I hold a Master's of law from New York University, and I got interested in water ethics when I served on a Swiss international relief organization and wanted to understand the issue of water. I traveled to Zimbabwe and South Africa and I saw there a woman looking for water under the sand. After that trip to Africa, I was convinced that I had to write a PhD on water ethics, focusing on the new human right to water. The book based on my PhD research book was published in 2017, in English and French. The aspect of water ethics which I'm interested has to do with justice for water and the struggle against water inequality.

Benoit Girardin

I'm a 78 year-old, former Swiss diplomat with a PhD from the University of Geneva. It may be interesting for you to know that a Swiss ambassador worked five years in a slum area in Cameroon, where water issues like flooding, poor sanitation, and lack of potable water was an everyday challenge. Then I moved to Pakistan and observed excess irrigation resulting in salty soils in the arid lands of the Thar Desert. After retiring from government service, I taught political ethics at the Geneva School of Diplomacy and International Relations. And I published a book on *Ethics in Politics*,³ which has been downloaded 150,000 times. Later I joined the Workshop for Water Ethics with Evelyne as president, and we published *Water Ethics: Principles and Guidelines*⁴ under the auspices of Globethics.net. I also co-edited (with Evelyne) the book *Blue Ethics*.⁵ My two interests within the field of water ethics are first, to apply ethics as a referential framework for negotiations between water users, such as farmers, factories, cities, etc.; and my second interest is to use ethics to assess the true costs and benefits of water provision.

K.J. Joy

My name is Joy; I live in Pune, a city close to Mumbai, in the Indian state of Maharashtra. I studied social science and social work at Tata Institute for Social Sciences in Mumbai and became a full time political activist for 10 years in rural Maharashtra. I worked on issues of drought, equitable access to water, livelihoods, ecological agriculture, river health, and project affected people, such as dam oustees, etc. Since 1990 I have been affiliated with a small NGO

³https://www.globethics.net/documents/10131/26882163/FocusSeries_05_EthicsinPolitics_Benoit_text.pdf/b9a2b625-6fcf-6608-3e0d-8a770c177b58?t=1587729184146

⁴ https://www.globethics.net/documents/10131/26882172/GE_Texts_6_isbn9782889313129.pdf/f9f144b8-42b0-77c1-60d2-5fc187a86638?t=1587733389130

⁵ Benoît Girardin / Evelyne Fiechter-Widemann (Editors), *Blue Ethics: Ethical Perspectives on Sustainable, Fair Water Resources Use and Management* Geneva: Globethics.net, 2019
https://www.globethics.net/documents/4289936/15469226/GE_Praxis_13_isbn9782889313082.pdf [Note: To download you may need to create a free account with Globethics.net]

called Society for Promoting Participative Ecosystem Management (SOPPECOM), looking at different aspects of water in a comprehensive manner. Then over the last 15 years, I've been giving much more time to water conflict issues through a large India-wide network which I coordinate, called "Forum for policy dialogue on water conflicts in India", aka "Water Conflict Forum". We do a lot of research and documentation, and engage in mediation with some of the active conflicts. We also do some capacity building with young researchers and activists.⁶ And my latest book is a co-edited book called *Split Waters: The idea of water conflicts*.⁷

So for me, though I do not explicitly talk about "water ethics" I think there are ethical ideas and values embedded in all our work. I've been trying to approach water ethics from a water justice perspective. The values I hold dear from the perspective of Justice equity can also be anchored by using water ethics as a peg to hang all these concerns. Specifically we are involved in two sets of issues. One is inter-sectoral allocation conflicts between agriculture, industry, and urban water, because a lot of water is getting diverted from the rural to the urban and agriculture to industry. So, this is a very live issue in India which the water conflict Forum has addressed, and we had some discussion with David about how we can make sense of this through an ethics perspective. Second, there is a renewed discussion in India about rights of rivers, because of a particular verdict from one of the high courts in India, granting legal personhood to two river systems. And I've also been part of the national drafting committee for a new national water policy for India. So we are trying to bring in some of these issues of ethics in the overarching principles and the values embedding the policy.

Jeremy Schmidt

My name is Jeremy Schmidt. I'm an Associate Professor of Geography at Durham University in the UK. My previous work on water ethics included a book published in 2010, co-edited with Peter Brown, called *Water Ethics, Foundational Readings for Students and Professionals*.⁸ I continue to work on water ethics and several people on this call have been very generous in working with me on some of these topics, including David [Groenfeldt], Christiana [Zenner], and James [Wescoat]. And I would like to make just one quick comment on that the concept note that David sent around [See Annex 2] which noted that the UN high-level panel in their presentation of the "Valuing Water Initiative" made no mention of water ethics.⁹ I was involved in that Initiative and can give some background there on why ethics got stripped away, but other claims about values stayed in. Regarding my specific interests within the field of water ethics, these include both philosophical aspects and the policy and governance side.

James Wescoat

I am an emeritus professor at MIT, where my research has focused on water systems in the US and South Asia. My interest in water ethics began with the study of Western water law and policy in the western United States. But then increasingly I became interested in what I'll call comparative water ethics in India, Pakistan and the US. I've written a good bit about Islamic

⁶ For details, see the Water Conflict Forum website, <https://waterconflictforum.org>

⁷ <https://www.routledge.com/Split-Waters-The-Idea-of-Water-Conflicts/Cortesi-Joy/p/book/9780367466428>

⁸ See my [review](#) of this book published in Water Alternatives in 2011,

⁹ See the website of the Global Water Partnership for background about the Valuing Water Initiative, <https://www.gwp.org/en/we-act/campaigns/high-level-panel-on-water-valuing-water-initiative/>

water law and ethics and continue to do that. Most recently, in 2021, I gave a talk at an institute in Pune on Indian water ethics, trying to kind of move into that realm and sort out ideas of duty-based types of approaches to ethics in South Asia.¹⁰ So, I'm delighted to join this discussion today and look forward to sharing ideas.

Darlene Sanderson

My name is Darlene Sanderson. I'm calling in from the unceded traditional territory of the Secwepemc people. I'm of Cree ancestry, and I'm happy to be part of this group to discuss water ethics as a field of study. My interest is in Indigenous elders' teachings and how they can help shape future water policy. I've been involved with water declarations that have been initiated by Indigenous Peoples in First Nations here in Canada. And you've probably heard about the deluge of water that we've had over the last 48 hours where there's been about 10 different highways that have been impacted by landslides and mudslides. We are seeing the direct impacts of climate change, and I'm really interested in indigenous solutions. I've also been working on water infrastructure and agricultural runoff and the impacts of deforestation on health. I'm actually a nurse and my background is cardiac nursing, but I'm also interested in the health and the waterways of Mother Earth and I'm also really interested in the rights of rivers. I'm very happy to be part of this group.

Susan Smith

I'm a lawyer by training. I've been practicing water law for the last 40 years and currently teach law at Willamette University in Oregon state. I started my practice by helping out on litigation between the states of Arizona and California with respect to tribal reserved water rights, but mostly I've been a generalist working on environmental and natural resources policy and law. I have two principal long-term involvements. One is serving as a fundraiser for WASH projects in various countries, but primarily in Haiti with the Peasant Movement of Papaye, the largest peasant organization in the country. In this work I have approached the question of water ethics from the boots on the ground perspective. My second long-term involvement has been with the World Council of Churches' Ecumenical Water Network, which does water justice advocacy. We put together 10 principles of water justice that we are bringing to the Assembly. So the World Council of Churches is going to be looking at these principles and perhaps having them endorsed by churches that represent about 600 million people. My current writing is shifting more towards Indigenous water rights, working with Darlene and others, and I am working on an advocacy piece that basically says that ethical management of water needs to replace economic management of water. All of these issues are part of what I consider to be "water justice."

Mona Polacca

Good morning to each and every one of you. My name is Mona Polacca. I am from the tribal nations of the Havasupai, the people of the blue green waters. And I'm from the water clan on my mother's side. That's the Havasupai part of me. I'm also Hopi and Tewa, the people of the Pueblo nations of northern Arizona. I'm speaking to you from the traditional land and territory

¹⁰ For details about the concept of "water duties" as pertaining to water ethics, see his 2013 article, "Reconstructing the duty of water: a study of emergent norms in socio-hydrology," <https://hess.copernicus.org/articles/17/4759/2013/hess-17-4759-2013.pdf>

of the Tahona O'odham nation in Tucson, Arizona, which is near the US and Mexico border. I am really happy to be joining you all and have been a colleague of David's for a number of years working on water issues and in particular Indigenous water issues. I am also a colleague of Darlene Sanderson. We are co-secretaries of the Indigenous World Forum on Water and Peace. We've been working on this for around 15 years, approaching the United Nations Permanent Forum on Indigenous Issues and calling on them to give voice to Indigenous Peoples through an Indigenous World Water Forum to provide a platform to speak about their issues regarding water on their lands and territories. We've also presented to UNESCO a concept to establish a special classification for waters on the lands and territories of indigenous people, to classify these waters as cultural and spiritual reserves. And we are currently working with some of the First Nations in regard to the impacts of the Covid pandemic. And of course, along that line, here in the United States there had not been enough attention paid to the issues of safe and clean drinking water for tribal nations until the pandemic occurred when it came to the forefront that there were severe issues regarding availability of clean, safe drinking water or even to be able to have water that's available within the home. Many tribal people are still hauling their water, going to a spring to get their drinking water. And so this is this is a very important issue. We're very interested in making sure that consideration is given to the Indigenous Peoples' rights as far as their water sources are concerned and involvement in developing policy regarding the water on their tribal nations.

Ingrid Leman Stefanovic

My name is Ingrid Stefanovic. I'm a professor emeritus at the University of Toronto in Canada, where I spent most of my career teaching environmental ethics and how values affect environmental decision making and public policy. I taught a graduate course for a few years on water ethics and used Jeremy's book -- that's a wonderful book that you put together -- and the same, David, your book as well. Recently, I was dean of the faculty of environment at Simon Fraser University. At that point, I edited two books on water ethics. The first is called *The Wonder of Water*, published by the University of Toronto press.¹¹ That book is more about the phenomenology of water, and the wonder of having water in our lives. The second book is called *Ethical Water Stewardship*¹² which I co-edited with Zafar Adeel, the former executive director of the United Nations University Institute for Water, Environment and Health. And that book includes a chapter by Indigenous scholar Clifford Atleo on boil water advisories among Canadian First Nations (which illustrates the point that Mona just made about Indigenous communities still lacking access to safe water).

Brett Simpson

I'm an independent journalist currently working on a piece for *The Atlantic* which started out as a story on the extraction of fossil water. And it quickly became a story about the ethics of mining Fossil water. And that's how I found David and we've had some really fantastic conversations. And I'm excited to hear what you all have to say.

Christiana Zenner

¹¹ <https://utorontopress.com/9781487524036/the-wonder-of-water/>

¹² <https://link.springer.com/book/10.1007%2F978-3-030-49540-4>

I became interested in water ethics from the intersection of growing up in the very arid region of the Central Valley in California and then the front range of Colorado and thinking about the ways in which water was discussed as simultaneously obvious in its necessity and culturally signified in a whole range of ways that didn't always align with the dominant economic and distributed paradigms. And so over time, I eventually decided that the best way to pursue thinking about water ethics and values was through a PhD in religious studies, where I could focus on the moral traditions of a number of different religious traditions and also intersections between religions, cultural values and dominant sciences, and how policymaking and de facto as well as de jure, systems for valuing and distributing water are influenced by various kinds of social, political, even theological imaginaries. So I am now an associate professor at Fordham University in New York City, and where I teach in a department of theology. I'm technically a professor of theology, science and ethics. My first book on water ethics was published in 2014. It's called *Just Water: Theology, ethics and the global water crisis*. A 2nd Edition¹³ published in 2018, had some updates, such as Standing Rock. Through these two books, I tried to articulate to a water audience how to think about complexities of freshwater including issues like fossil water, proportional use, consumptive use, etc. And I also tried to make legible to my tenure committee, why someone in a department of theology trained in religious studies would be writing on water ethics! More recently I have been focusing on paradigms of value and how important it is to challenge and question dominant economic paradigms. I'm very interested in a range of cultural values and anti-colonial approaches to water.

Jesse Ferraioli

My name is Jesse Ferraioli. I'm the intern at Water-Culture Institute who has been corresponding via email with you all. I'm a junior at Dartmouth College studying philosophy and environmental studies, calling in from Dartmouth College, which sits on unceded Abanaki land in the state of New Hampshire. I'm interested in many aspects of water ethics: How the field can contribute to Indigenous campaigns and water rights; how traditional knowledge can be incorporated into water policy; and applying water ethics to decision making regarding water scarcity and other effects of climate change. And I'm just very excited to be part of this discussion and to meet you all.

David Groenfeldt

I am the moderator of this discussion, and the director of Water-Culture Institute which is virtually hosting this event. I have been engaged in water policy since studying the cultural impact of irrigation development in India as my PhD topic long ago. But my interest in water ethics was sparked more recently and more locally. From 2006 to 2009 I served as director of the Santa Fe Watershed Association (<https://www.santafewatershed.org>) in Santa Fe, New Mexico (USA) and advocated for maintaining an environmental flow in our river, rather than damming the entire flow in the city's twin municipal reservoirs. For nearly a century the river had been managed exclusively for municipal and agricultural water supply with no special value placed on the health of the river itself. This anthropocentric perspective was supported by the local community at large, in spite of a clear global scientific consensus (among hydrologists, economists, and ecologists) that a healthy, flowing river is always more valuable to society (in

¹³ <https://www.orbisbooks.com/just-water-en.html>

multiple ways) than a river whose water is fully diverted. This debate between the principle of fully using the river's water vs. leaving enough water in the river to support ecological function begged for an ethical resolution. This was the impetus for establishing the Water-Culture Institute in 2010, and water ethics has continued to be my primary topic of concern. The present roundtable on "Strengthening the Field of Water Ethics" marks a shift from focusing on ethical principles of water management per se, to an equally compelling concern with fortifying the field of water ethics itself.

PART II

Strengthening the Field of Water Ethics: Discussion

David Groenfeldt

Thank you all for participating in this first virtual roundtable in what we hope will be a series of water ethics roundtables on various ethical topics. Now that we have introduced ourselves, I am going to loosely structure our discussion around the questions listed in the Agenda (Annex 1). I'm just going to jump in and read or summarize the discussion questions.

Question 1: *What do you see as the boundaries of "water ethics"? Should the field of water ethics include the ethical implications of allocating water to economic activities which are arguably non-sustainable or harmful (e.g., certain forms of industrial agriculture, manufacturing, mining, and energy production)? Where should we draw the line between what is water ethics and what is some other type of ethics? Or shouldn't we have a line?*

Benoit Girardin

I feel that [water] ethics should put some emphasis on the question of limits. Many international problems about water are based on a wrong assumption that water is limitless. And just to acknowledge what is obvious, but many people are denying it, there is a limit. And that limit is not only a constraint, but also a challenge and [in this sense] a positive aspect of water. The limits of water provide an opportunity to negotiate a clear use of limited water resources.

Ingrid Stefanovic

I've worked a lot in interdisciplinary fields throughout my career and one of the biggest problems is when you start actually delimiting and restricting boundaries around fields of study. So, regarding issues like mining, I've published in the area of geo-ethics, but I don't consider this to mean that I'm just publishing in geo-ethics and I'm not publishing in water ethics. I'd rather have us adopt a very broad understanding of the field of water ethics. It allows for multiple voices from the sciences all the way to the humanities and the arts, and I think that if the field of water ethics starts to draw lines that are too rigid, it actually stops conversations instead of inviting multiple voices. So, to answer the question, I would like to see us not draw those lines sharply at all.

Susan Smith

I agree with everything that Ingrid said, but I'd like to comment on the particular question about harmful uses of water. I think that the whole issue of allocation of water has to address the utility of water use; what values are being supported through the use of water? I am in the midst of working on a case study with my students on the Klamath Basin, and you have to think, is it worthwhile to sacrifice water that's necessary for endangered and threatened species so that people can have beef? In other places in Oregon, we have to think about, is it worthwhile to waste water in order to bottle water? There's no way around the disutility question.

K.J. Joy

I broadly agree with what Benoit says, that we should have an overarching framework saying that water is limited or a finite resource, so it leads to proper use prioritization; that gives an upper bound condition to look at and also can bring down the water footprint overall, and more water remains within nature in streams or aquifers. Now coming to what Ingrid said, my response would be, yes, and no. Yes, I agree that the way we draw lines should not stop conversations and dialogues, so we should not be rigid. But when we talk about water ethics, then it gives us an impression (and this is what was attractive to me) that water ethics can serve as an instrument or a tool to guide water use in a particular direction: the use should be sustainable or the use should be more just, etc.. We can also identify areas where water is misused, or water is primarily seen as a profit-making venture, which goes against the principle of justice. I'm not saying that we should make a very, very rigid framework so that we don't lose people who may be holding different viewpoints. But, I think some upper boundaries to uphold so that if you find that a particular water use— for example, the way water is used in India for thermal power plants -- it is one of the most unsustainable uses—it not only pollutes water it is also very inefficiently used, or in the US, I think fracking is a similar issue. So, there may be certain [harmful] uses, where I think probably we need to take a stand as a group, from an ethical perspective. So, I'm caught between the two extremes saying that we may not need very rigid boundaries, but not keeping any boundaries also can be problematic.

Ingrid Leman Stefanovic

Maybe I can just quickly respond. I don't think the field of water ethics needs boundaries drawn around it. That's all I'm talking about. I agree with Susan, that if you exclude conversations around the dis-utilities, then you're limiting a genuine conversation about what is right and what is wrong. When people are acting unsustainably, there's an ethical component to that, so that absolutely falls within the conversation of water ethics. And the key is to focus on defining what is a just way forward, what is the sustainable way forward? What is a morally sound way forward? But it doesn't mean excluding conversations about cases where this is actually not happening. Because as you all know, we have more of those cases than we'd like to see.

Question #2. *How important is it for water ethics to connect with formal strands of philosophical ethics, environmental ethics and deep knowledge of indigenous value systems? What lessons can we draw from the evolution of environmental ethics as an established field? How might water ethics as a field connect with other fields or schools of thought?*

Ingrid Leman Stefanovic

Some of the people who have criticized the field of environmental ethics have suggested that if you're talking environmental ethics, you're automatically excluding environmental aesthetics, environmental ontology, environmental epistemology, and so there's been some criticism of the field of environmental ethics by philosophers who view ethics as sort of a delimited field that is separate from metaphysics and epistemology, etc.. There's been a push by people in the International Association for Environmental Philosophy not to call themselves environmental ethicists, but environmental philosophers. But a lot of people who are not philosophers

absolutely understand what ethics means and they don't look at it in the very narrow way that some philosophers do. So, I think there's something that you have to also look at in terms of popular consciousness— what's the best term to use so that people in other fields of water, get it? And I think that water ethics is a really good term that engineers always understand. If you say something about engineering ethics and water ethics, they get it. If you start fiddling with other terms, popular consciousness may not understand it as well. So this is really a big question.

Evelyn Fichter-Weidmann

In my book on water ethics, called, *The Human Right to Water: Justice or Sham?*, I was challenging the issue of the human right to water, which had been decided by the UN in 2010. I definitely agree with Professor Stefanovic, that there are many different kinds of ethics. But since most people didn't study philosophy, they don't really know what ethics is. When I was conducting my research, I was fortunate to find a conference given by the famous French philosopher Paul Ricoeur in 2000, on the different types of ethics. He said there are two spheres of ethics, the anterior one and a posterior one. We have to think with the help of the anterior [classical] philosophers like Aristotle, Kant, Hume, Spinoza, and so on. And then you can go downstream with the help of posterior, applied philosophers. When I was first confronted with the problem of water in Zimbabwe, I took time to read these anterior philosophers. There was little mention of "water ethics" and I was hesitant about even using the term, until I read Ricoeur, who gave me confidence to speak about water ethics [as philosophically legitimate]. I also relied on three documents: (1) the 1992 Dublin statement on the sustainable use of water,¹⁴ the 2005 Ecumenical Declaration on water as a human right and a public good,¹⁵ and the 2010 UN resolution on the human right to water.¹⁶ Then, I went back to Abraham and the central role of water in the desert in the Old Testament, and then I went slowly to Aristotle and then to Kant and so on which helped me quite a lot. My point is that to write about an ethics of water, you cannot just start with the UN resolution of 2010. It is absolutely necessary to have a definition of water ethics but the problem is that you have different views and different perspectives in ethics. You have people who concentrate on eco-centrism, giving priority to Nature, and other people espousing anthropocentrism, where you put the human being at the center. I personally would put more emphasis on the human.

Question #3 (Indigenous value systems and water ethics)

How does water ethics as a concept play into indigenous activism and indigenous thought? How is the term "water ethics" being used, or not used, by indigenous writers. Can we have Aristotle's ethics and indigenous knowledge systems happily co-existing within the concept of water ethics?

¹⁴ <https://www.gwp.org/contentassets/05190d0c938f47d1b254d6606ec6bb04/dublin-rio-principles.pdf>

¹⁵ https://repository.globethics.net/bitstream/handle/20.500.12424/173221/n1_engl_1_.pdf

¹⁶ <https://undocs.org/pdf?symbol=en/a/res/64/292>

Mona Polacca

I recently did a traditional dialogue with Indigenous representatives from various nations, where we spoke about water ethics from the worldview of Indigenous Peoples. We don't have scholarly texts, in terms of some of the things that you all have discussed just now, as far as philosophy is concerned. But we believe that what we call our original instructions are our ethics. They are our instructions on how we have a relationship with water, the values that we have about water, our spiritual practices and beliefs that are related to the water, and even our sense of identity, in relation to water. Our basic survival instructions that we as Indigenous people practice or understand to be our basic survival [strategy] on Mother Earth. This is something that often comes up in discussions about the right of and to water on indigenous lands and territories. We use the terminology of "Water is sacred" and "Water is life." Those are our indigenous values, what we call "ethics." Using that term, Ethics, is a good way to describe our relationship, that we are upholding the ethics of our indigenous original instructions. So I think it is very important right now to have this discussion about ethics. Some of the tribal nations have within their structures what they call their codes, their laws, that are focused directly on how water will be treated and protected within their tribal land boundaries. By having those codes, it establishes that we have an ethical responsibility to make sure that the waters that are within our lands and territories are protected and safeguarded by the leadership of our tribal nations.

Benoit Girardin

I fully support what has just been said. I think we should avoid being caught in a purely academic discussion. Why? If you consider how water is managed in some countries, such as Switzerland or Europe, the discussion is between a technological approach and an economical one. And when I discussed with both, I could realize that both approaches on their own is leading to a dead end, because there is no room for a negotiation [process], or they just follow the most powerful [voices]. This is unsatisfactory. A lot of people realize that around water, the key issue is justice. It may be justice to minorities or remote areas or remote groups. It may be justice to our grandchildren, and the future generation, it may be justice in our location, it may be justice in making the resource sustainable, and so on. So basically, I feel that a lot of discussion, not necessarily academic ones, is necessary in the society at large around the theme of water justice. If we can find the right words, not to be caught-up in in the word, ethics, but instead just abiding by a justice requirement could be okay. Is it understandable?

Jie Liu

I really concur the above speakers. As a hydro-geologist I'm not familiar with all the philosophy terms. From a natural scientist perspective, when we talk about the optimization of groundwater pumping, and also how to pump groundwater economically while not impacting the environment, we are trying to use water sustainably, and also allocate the water justly and fairly. Although we don't mention water ethics explicitly, we actually are implementing all those ideas [values] in our scientific work. So for me, my concern is that when I did the water ethics project, sponsored by UNESCO,¹⁷ I got to know these terms. But after finishing this

¹⁷ Jie Liu was the lead author for a 2011 UNESCO report, *Water Ethics and Water Resource Management*, UNESCO-ECCAP Working Group 14 Report, UNESCO, Bangkok; <https://philpapers.org/archive/LIUWEA.pdf>

specific project, when I returned to the regular natural science projects, we don't use the term, water ethics. So, I'm thinking when talking about water ethics, do we have a target audience? Or is it intended for only specific disciplines? From the perspective of a natural scientist working in the water field, it's difficult to understand the term clearly.

Jim Wescoat

Sometimes we hear about an opposition between water ethics and economics, but a lot of the water economics field grew out of very strong ethical principles and arguments. Recognizing the historical relationship between water economics and water ethics provides a basis for engaging with those who espouse a utilitarian framework for water ethics and economics. In the tribal context that Mona discussed, and from my experience working in the Glen Canyon Dam area (on a review of the adaptive management program),¹⁸ there can be significant differences among and within the tribes regarding their ideas of ethical water use. Among the Tribes involved in the adaptive management study of the Glen Canyon stretch of the Colorado River -- the Havasupai, Hualapai, Hopi, Navajo, Southern Paiute, etc., the rich diversity of views is striking. Even within that local area, it requires an extraordinary depth of knowledge and ability to converse across cultural traditions. Today's conversation has brought out the need for expertise of that sort, and an openness to go beyond traditional disciplinary boundaries.

Evelyn Fichter-Weidmann

May I just add very quickly, my reaction to what James just said: the very famous Adam Smith, who has written *Inquiry into the Nature of Causes of the Wealth of Nations*, was as a matter of fact, a theologian. And he became the father of economics, but through theology. He was struggling his whole life with this opposition between ethics and economics. When he died, he hadn't found the solution. But at least he had raised the questions. That's all I wanted to say. I discuss this in detail in my book on the Human Right to Water.

Jim Wescoat

A further comment with respect to law: I was so glad to see Susan Smith here, and other legal scholars, because I first came into water ethics through talking about water rights as property rights. I had to learn that there is an extraordinary philosophy of property and ethical arguments for and against property rights in water. It was only when you understand water rights in some depth, both in theory, but then also how people regard that on the ground (e.g., in the Western U.S.) that you start to be able to talk about these things in a deeper way.

Mona Polacca

Can I make a comment real fast? I think that it's really important right now because of the scarcity of water. I know here in the state of Arizona, we're going through a drought and what is an issue right now is allocation of the water. When we're talking about water rights, it also includes how the water is allocated to the water users, such as the tribes, the municipalities and the counties within the state. And so, this is another area that needs to be addressed—how are we going to be ethical in the allocation of the water? Who is going to get the water? Who is making that decision about allocation of the water? And when it comes to that

¹⁸ See the 1999 report, *Downstream: Adaptive Management of Glenn Canyon Dam and the Colorado River Ecosystem*; http://www.riversimulator.org/Resources/NRC/Downstream_NAS_GCDAMP.pdf

allocation, are all of the users or the consumers being considered in how those allocations are made? I think that's a very important issue right now.

Darlene Sanderson

I can also chime in. When you're talking about law, indigenous peoples have our original instructions, as Mona referred to, and these indigenous laws have the capacity to actually protect water, as water is life, and the interconnectivity of all of life. It's not just about upholding the life of the people, it's also about upholding the life of the land, and all of the plants and animals in it. We spoke earlier about the spirituality of water and how some indigenous people see water as a physical form of Spirit. One of the things that the late elder Louis Sun Child talked about, who's Cree, is the compassionate mind. So, I think in terms of philosophy, we have to think about education of the mind and the heart. And I think there's a lot that indigenous peoples can teach us. I just wanted to offer that.

Evelyn Fichter-Weidmann

Yes, that is really the heart of the matter, the education.

Benoit Girardin

I come from a country where indigenous people are running the country. I say that because I have a lot of respect for the American situation, but in our situation today in Switzerland, people living in the mountainous area have a lot of say in politics and that makes a difference. I think we should try to position ethics as a way of setting the criteria to make just decisions about allocation. So far, allocation has been done by technicians, or politicians, and politicians have a big ear for influential people. So, we should try to rebalance economics and technology to make a more just allocation which should be economical, but not only economical.

David Groenfeldt

I want to bring in a related question (**Question #4**) - There are so many kinds of iconic conflicts like Standing Rock, like Line 3 in Minnesota, where the oil company has built a pipeline through fragile sacred lakes where wild rice has been harvested for thousands of years. *What can ethics experts contribute in our approach that is not already being contributed by the activists on the ground who are fighting directly, or to the concepts of water justice, which are also out there? What is the added value of an ethical approach?*

Ingrid Leman Stefanovic

A lot of philosophers think that their role is to develop codes of ethics and a sort of ethical guidance, which is the case, but the other thing that I think is really interesting is that I think ethicists have a role in working with communities to help explicate implicit value systems that are driving conflicts. And, you know, many times people don't understand that, that there are different paradigms that frame the questions that are asked in the first place. There was a really interesting book written many years ago in Canada; it was called *The Alachlor Controversy*.¹⁹ It had to do with whether this herbicide Alachlor was or was not carcinogenic. It was really

¹⁹ https://www.google.com/books/edition/Value_Assumptions_in_Risk_Assessment/QdZ4paHKtdIC?hl=en

interesting, because the book sort of showed how many politicians took a very utilitarian approach to Alachlor. "Sure there are risks and benefits; let's balance the risks and benefits." But then there were mothers at public meetings saying absolutely no alachlor on the land, because my children will not be exposed to anything that is potentially carcinogenic and we have a right to clean water and, and a healthy lifestyle.

What the authors were able to show was that the conflict playing out on the Canadian stage, had to do with really different value systems. And those value systems were taken for granted. So, I don't think that ethicists are doing enough to help people understand [what their own values are]. We all have ethical values that we may not always be explicit about. They're underlying our culture, our language, and our personalities, specifically regarding what risks we'll take. But sometimes inserting yourself into a conflict in a different way than activists do can help people understand that the argument is deeper than they thought, and has to do with worldviews and attitudes that may or may not be core to the conflict— and if they're not core, what kind of negotiations can happen, so that conflicts can be resolved? This goes back to the concepts about water allocation. Because obviously, choices have to be made and different voices are going to be heard. And how does one resolve those difficult ethical problems around water allocation? Well, let's maybe understand the attitudes and perceptions that sometimes are so deeply grounded and will not budge.

I'll give you one additional example of that: a colleague of mine was at a meeting and there was argument about whether a dam would or would not be constructed. At the meeting, one of the fellows took my colleague aside and said, "I don't understand these First Nations people, what are they talking about? You know, they're going to make lots of money. If they're having such problems with poverty, well we're going to give them lots of money if we construct that dam," and my colleague turns around to him, and he said, "Do you have a daughter?" And he says, "Well, yes, I do." And my colleague says, "Well, if I'm willing to give you as much money as you want for your daughter, are you going to give her up?" And of course, he said no. The moral being that there are core values that are nonnegotiable. And in this particular case, for these First Nations people, this is nonnegotiable. This is their land. Ethicists should try and help people understand this concept of core values.

K.J. Joy

I just want to build on what Ingrid said just now. One is that it's very clear that in any decision related to water there are likely to be various underpinning values, which very often don't come to the surface. People don't understand why certain types of decisions are taken, for example, decisions about damming rivers. There is too little dialogue at that very basic or fundamental level— what are the types of values driving the conflict? So, I think this can be an important contribution from an ethics perspective, to make explicit what those values are. A second, and related point, coming from the conflict perspective, is that when we are having meetings and dialogue between conflicting parties, whether it is between two states or other different stakeholders, very often the conversation begins and ends with the type of positions people take. But the dialogue never goes back into the deeper needs and values which are driving these conflicts. In fact, one of my research colleagues uses the metaphor of an iceberg as characterizing a conflict story: What we see above the surface is only the tip of the whole

conflict, that is the positions, and the conflict among the stakeholders. But unless we dig deeper and deeper, we never unearth the underpinning values and the conflict at the level of worldviews which exist between the stakeholders. If the conversation can go down to that level, then we might understand each other better and see from where particular types of positions emanate, i.e. what value systems? That process can create more of a level playing field to have discussions about conflicting value systems. Third, it's a very instrumentalist viewpoint I'm going to take. If I approach an executive of a thermal power plant [which pollutes local water sources both from the mining and the burning of coal] from a water *justice* perspective, that person may not even agree to engage in a dialogue with me. But if I articulate from a water *ethics* perspective, then they might be more willing to talk, because they cannot completely deny that there's a moral value or an ethical value here. Using a water ethics approach will be able to reach more constituencies to have this dialogue. So, I think that is also an added value to an ethics framework compared to a justice framework. I'm not saying they're opposed to each other, but probably they can go together. And by bringing these perspectives together, we can reach out to more constituencies

David Groenfeldt

I think one of the reasons that water ethics is so fundamentally important is that we are referring to the part of the iceberg that we can't see, we're referring to the fact that everyone has value systems that have legitimacy in some way and that we need to take account of. And even just using the term "ethics" gives a signal that there's a lot going on here and we need to take time to give people an opportunity to express their values. That's why I feel that the other overlapping terms, like justice, and environmental flow, should be used very specifically rather than broadly, so they don't take up the oxygen for talking about ethics. And ethics are kind of uncomfortable to discuss because we are always running into the question of *Who are you to tell me what I should be doing?* Ethics implies a distinction between right and wrong, better or worse, but hopefully "ethics" can also be a signal that there's a lot of complexity here. But I just wanted to make my pitch for using the term, ethics, as what American entrepreneurs call a brand. And I think partly what we need to do in ethics is to defend our brand and show how it's useful. When we're involved in disputes like Standing Rock, we should be able to provide, through a blog post or something, an ethical perspective. Since we are almost out of time, I just wanted to make that point. Now I'll go back to my moderator role.

Let me pose a last question, which is kind of a summary question. *How can the present field of water ethics grow into an identifiable and recognized field of study in its own right? And one which attracts the interest of water policy professionals, and water management practitioners? What might a fully-fledged field of water ethics look like? Any comments?*

Evelyn Fichter-Weidmann

I think what the colleague from China, Jie Liu, told us is that ethics tend to be more implicit than explicit. And if you say that the people are just afraid to be explicit, it might block everybody. So, I think that water ethics needs an educational component [where people are taught to recognize implicit ethics]. It has to be part of the different teaching fields like law, economics, environmental law, and history. When you teach about ancient Rome and aqueducts, you should also teach about the ethics underlying the decisions to construct aqueducts. I think it

should be part of the general education. It should be part of the different fields which are taught at school— first in the primary school, and then secondary school and then at the university. And all throughout the life. Ethics is always part of life. That is my point.

David Groenfeldt

Ethics is part of life, but isn't water ethics also reducible to a global charter, or a set of value principles? I spent several years working on a water ethics charter. I hope my time was not wasted!²⁰

Evelyn Fichter-Weidmann

I know, but there are different charters. We just published, two weeks ago, the third version of our *Water Ethics*. But if you think of it as a field which should be taught at the university, I think it should be part of different areas of study. But as a global charter, you're not wrong. I mentioned the UN statement, the Dublin statement, and all these statements. And we made ours also. But just one single charter is not possible. [It would not be able to capture the diversity of water ethics.]

David Groenfeldt

When we were developing the global water ethics charter, we based it on declarations like Dublin, like the human right to water, and there are so many declarations and quite specific ones— i.e. on water sensitive cities, the Alicante Declaration on Groundwater,²¹ etc.. But what I thought was remarkable is that we didn't find any declarations that contradicted each other; they were all saying something different but compatible. So you could pretty much throw all the declarations and codes of best practice for water into a basket and call it a global water ethics charter, and it would make sense. So, I was impressed with how harmonious the different statements about how we should be using water are. We get hung up on controversies like if a specific dam is ethical or not. Well, the dam controversy does entail some truly conflicting values about water. But the basic idea that we need to store water, you find general agreement on that, but maybe we can store water in the ground instead of having it in a surface reservoir. Anyway, I was more impressed by the greater amount of agreement than disagreement when we looked for universal principles to include in a water ethics charter.

Mona Polacca

May I make a comment? The work that the Indigenous World Forum on Water and Peace has done with some of the First Nations in British Columbia is helping develop their water declarations. By establishing these statements, it allows them to be proactive, rather than reactive. Where *they* establish the boundaries and include their original instructions —or their ethics— in the statement. And so, what we have done is to enable them to participate and to become proactive rather than reactive. By having those statements in place or their codes in place establishes the parameters of what could be allowed to encroach on their water sources.

²⁰ See the book, *Global Water Ethics: Towards a global ethics charter*, Edited by R. Ziegler and D. Groenfeldt, Routledge, 2017; <https://www.routledge.com/Global-Water-Ethics-Towards-a-global-ethics-charter/Ziegler-Groenfeldt/p/book/9780367226817>

²¹ <http://aguas.igme.es/igme/isgwas/ing/The%20Alicante%20Declaration%20-%20Final%20Document.pdf>

Susan Smith

What I wanted to observe was how you actually resolve water disputes. It has to do certainly with ideas, but more powerful than sort of talking through one's values is to share the human experience with respect to water and to build relationship. It's just fundamental, in terms of resolving water disputes, to attend to those aspects. And so, I think we may be overstating the value of clarifying values. In the Klamath Basin, it's very clear what the various tribes value and oh, by the way, they value different things. And it's very clear what the irrigators are valuing. It's not about their values. It's about their needs, their interests. But the way you bridge that is not by abstract discussion about values. It's by sharing experiences, and coming to care about one another, and coming to care about one another's experiences. So, I just don't want us to overblow what ethics can contribute to conflict resolution.

Ingrid Leman Stefanovic

Can I just quickly add, I totally agree. And in fact, if you conceive of ethics, apart from the human experience that you're talking about, then it's just an empty, abstract exercise. But anyway, I also wanted to thank David for today. This was amazing.

David Groenfeldt

Thank you. And I want to thank everyone for your very constructive participation in this roundtable; we are 10 minutes over our planned 90 minutes, so I think we should close now. I really appreciate the work that you do. One of the benefits of this kind of meeting is that we can remind each other that we're not fighting a lonely battle, there are many others who share our commitment to nurturing the field of water ethics and more broadly, the moral dimensions of water. Let's stay in touch and expand our collaboration. There are ample opportunities for research, activism, and education which will contribute to a more ethical water future.

AGENDA

Zoom Roundtable on
STRENGTHENING THE FIELD OF WATER ETHICS
(17 November 2021, 8:00-9:30am EST; 14:00-15:30pm CET)

Welcome and Introduction to the roundtable theme (David Groenfeldt, Water-Culture Institute)
(10 min)

Self-introductions - name/affiliation/What aspect of water ethics are you most interested in?
(15 min)

Questions for discussion (65 min)

(1) What do you see as the boundaries of "water ethics"? Should the field of water ethics include the ethical implications of allocating water to economic activities which are arguably non-sustainable or harmful (e.g., certain forms of industrial agriculture, manufacturing, mining, and energy production)?

(2) How important is it for water ethics to connect with formal strands of philosophical ethics, environmental ethics, and/or deep knowledge of indigenous value systems?

> Do we need to define "water ethics" or is this needlessly limiting?

> What lessons can we draw from the evolution of "environmental ethics" as an established field?

(3) How useful (to the growth of the field of water ethics, or to meeting the goals of the campaign) are ethics-based campaigns, (e.g., against dams, fracking, pollution, etc., or in support of environmental flow and biodiversity)?

(4) What is the added value of using an ethics frame as opposed to concepts such as environmental, social, or cultural justice?

> What unique contributions would a water ethics frame offer (e.g., in guiding water allocation)?

> How important (or not) is it to develop a recognizable "brand" of water ethics?

(5) How can practitioners of water ethics contribute to ongoing Indigenous campaigns of "land back /water back" and "water protection" (e.g., Standing Rock, Line 3, etc.)?

> How useful are normative codes of water ethics, whether narrowly focused on local communities or broader and more universal (e.g., the Global Water Ethics Charter)?

(6) Alliances and synergies: How might a water ethics framework link to climate ethics, or to other natural resource ethics (forestry, agriculture, mining, etc.)?

(7) [Summary and Conclusions] How can the present field of Water Ethics grow into an identifiable and recognized field of study in its own right and which attracts the interest of water policy professionals and water management practitioners? What might a fully-fledged field of Water Ethics look like?

CONCEPT NOTE

*Virtual Roundtable on****Nurturing the Field of Water Ethics***

17 November 2021, 8:00-9:30am EST (= 14:00-15:30 CET)

1. Background

Although there already exists a de facto field of water ethics, in the form of books and articles addressing the topic of "water ethics," this field is rarely cited in the water literature, and has little influence on water policies, programs, or investment decisions at any level of governance. How can Water Ethics play a larger and more meaningful role in water policy discourse? How can water ethics concepts and methodological tools contribute to solving real-world water challenges? What sorts of research and institutional architecture (networks, partnerships, a journal, social media, etc.) could best support the development of water ethics as a dynamic discipline.

2. Premise

- There is a broad normative consensus, reflected in the SDGs and various UN and other international declarations, about how water should and should not be used, the importance of protecting aquatic ecosystems, and how social justice in water governance ought to be addressed;
- There is an emerging consensus that water has diverse values to different stakeholders, and these values (social, environmental, spiritual-cultural, as well as economic) need to be addressed in water policies (e.g., the Valuing Water Initiative).
- There is also a growing literature on the ethical underpinnings of water policies, under the label of "water ethics". Significant books and reports address water ethics from a religious perspective (Zenner 2018, Chamberlain 2009); a water resources perspective (UNESCO-COMEST 2018, Brown and Schmidt 2010, Groenfeldt 2019); philosophical perspective (Meisch 2018, Doorn 2019); an engineering perspective (Davis and McGinn 2008, Grunwald 2014), as well as phenomenological (Stefanovic 2020) and Indigenous spiritual perspectives (Sandford and Phare 2011, McGregor 2014). Concurrently, over the past decade, the new field of Geo-ethics (Bobrowsky et al 2017) has taken shape and partly overlaps with Water Ethics.
- In spite of this growing literature, the larger water resources field has been mostly oblivious to the water ethics perspective, as if the field of water ethics did not even exist. For example, the 33-page concept note of the Valuing Water Initiative (cited

above) does not refer to ethics at all.²² The disconnect between the availability of water ethics information and the lack of up-take of this information in the broader water resources field, suggests that building more content about water ethics (through ideas, theories, concepts and methods) is not enough. A "field" of water ethics is needed to frame those concepts and collect and connect disparate examples of water ethics in action.

2. Key Questions

- How can the emerging field of Water Ethics grow into an identifiable and recognized field of study in its own right and which attracts the interest of water policy professionals and water management practitioners?
- What are the ethical implications of allocating water as an input to economic activities which are patently non-sustainable (e.g., certain forms of agriculture, manufacturing and energy production)?
- What can social and cultural theories contribute to an ethics of water?
- What might a fully-fledged field of Water Ethics look like?
- What unique contributions would such a field offer which are not already being provided by other disciplines and sub-fields?
- How useful are normative codes of water ethics, whether narrowly focused (e.g., OECD Governance Principles) or universal in scope (Global Water Ethics Charter)?
- How useful (to the growth of the field of water ethics) are ethics-based campaigns, (e.g., against dams, fracking, pollution, etc.) or for environmental flow and biodiversity?
- In what ways might the water sector be transformed by a robust field of water ethics?

3. Why this is a propitious time to promote the field of water ethics

There are two broad developments that bode well for attracting interest, support and collaboration in this effort. One is that the climate emergency is drawing mainstream attention to the role of values in framing natural resource policies, and this trend is particularly evident in the water sector (cf. the 2020 World Water Development Report on Valuing Water). The second favorable development is the progress within the field of water ethics itself. Not only is there an uptick of books and articles that focus on, or overlap with the field of water ethics, but there is a more diversified representation of scholars and activists advancing progressive social and cultural positions. Most notable is the engagement of Indigenous scholars/activists working on decolonizing legal and ontological frameworks within the water space, and (sometimes) invoking water ethics in the process.

4. Expected results of the roundtable

We will develop practical suggestions for strengthening the field of water ethics through ideas, publicity, institutional alliances, research agendas, and other measures to be imagined and discussed. A summary of our discussion will be written up by Water-Culture Institute and vetted with all roundtable participants before being posted online as a working paper.

²² <https://www.government.nl/binaries/government/documents/reports/2020/01/31/valuing-water-a-conceptual-framework-for-making-better-decisions-impacting-water/VWI+Conceptual+Framework+Feb+2020.pdf>

References

- Bobrowsky P., V.S. Cronin, G. Di Capua, S.W. Kieffer, S. Peppoloni (2017). The Emerging Field of Geoethics. In: *Scientific Integrity and Ethics with Applications to the Geosciences*, edited by L.C. Gundersen. Special Publication American Geophysical Union, John Wiley and Sons, Inc
- Brown, P.G. and Schmidt, J.J. (2010) *Water Ethics: Foundational Readings for Students and Professionals*, Island Press, Washington, DC
- Chamberlain, G. 2008. *Troubled waters: religion, ethics, and the global water crisis*. Rowman & Littlefield Publishers.
- COMEST 2018, *Water Ethics: Ocean, Freshwater, Coastal Areas*, Commission on Ethics of Science and Technology, UNESCO, Paris
- Davis, C. and McGinn, R. (eds.), 2001, *Navigating Rough Waters: Ethical issues in the water industry*, American Water Works Assoc.
- Doorn, Neelke (2019). *Water Ethics: An Introduction*. Rowman & Littlefield Publishers.
- Groenfeldt D (2019) *Water ethics: a values approach to solving the water crisis*, 2nd edition. Routledge, New York
- Grunwald A. (2016) Water Ethics – Orientation for Water Conflicts as Part of Inter- and Transdisciplinary Deliberation. In: Hüttl R., Bens O., Bismuth C., Hoehstetter S. (eds) *Society - Water - Technology: Water Resources Development and Management*. Springer, Cham
- McGregor, Deborah (2014). "Traditional knowledge and water governance: The ethic of responsibility." *AlterNative: An International Journal of Indigenous Peoples* 10, no. 5, pp. 493-507.
- Meisch, Simon. "What is water ethics and to what end do we study it?: Lessons for the Water Ethics Charter." In Ziegler, R. and Groenfeldt, D. (eds.) *Global Water Ethics: Towards a Global Ethics Charter*, pp. 37-55. Routledge, 2017.
- Sandford, R.W. and Phare, M.A. (2011) *Ethical Water: Learning to Value What Matters Most*, Rocky Mountain Books, Toronto
- Stefanovic, Ingrid Leman, (ed.), 2019, *The Wonder of Water: Lived Experience, Policy, and Practice*. University of Toronto Press.
- Zenner, Christiana (2018). *Just water: Theology, ethics, and global water crises*. Orbis Books.