



## LJMU Research Online

**Kang, K**

**Navigating international water law: A systems theory approach**

<http://researchonline.ljmu.ac.uk/id/eprint/22228/>

### Article

**Citation** (please note it is advisable to refer to the publisher's version if you intend to cite from this work)

**Kang, K (2023) Navigating international water law: A systems theory approach. Global Water Forum.**

LJMU has developed **LJMU Research Online** for users to access the research output of the University more effectively. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LJMU Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain.

The version presented here may differ from the published version or from the version of the record. Please see the repository URL above for details on accessing the published version and note that access may require a subscription.

For more information please contact [researchonline@ljmu.ac.uk](mailto:researchonline@ljmu.ac.uk)

<http://researchonline.ljmu.ac.uk/>

# Navigating international water law: A systems theory approach

---

[globalwaterforum.org/2023/11/16/navigating-international-water-law-a-systems-theory-approach/](https://globalwaterforum.org/2023/11/16/navigating-international-water-law-a-systems-theory-approach/)

**Kenneth Kang, Liverpool John Moores University, United Kingdom**

*Managing transboundary waters is challenging at the best of times. International water law has been established to help resolve conflicts between parties, but how is it able to navigate the complex issues surrounding transboundary water? How is it able to deal with enforcement challenges, information gaps, and unpredictable climatic events? Kenneth Kang believes that a systems theory approach can do justice to how we understand the social role of international water law.*

---

International water law plays a crucial role in managing transboundary waters. It guides the optimal use of water resources for socio-economic and environmental purposes. However, international water law is abstract and its application often appears unclear to non-experts in the field. For example, the terms ‘equitable utilisation’ (UNWC, Art. 5), ‘no significant harm’ (Art. 7), and ‘cooperation norms’ (Art. 8) seem to say nothing by saying too much. These concepts may seem contradictory, but they highlight a reoccurring issue. We understand little about international water laws’ social phenomena. We understand little about how law deals with uncertain conditions. Specifically, how law deals with enforcement challenges, information gaps, and unpredictable climatic events. What new insights can systems theory offer to improve our understanding of international water law (Kang, 2023)?

## **A systems theory approach**

Systems theory offers a fresh perspective (Luhmann, 2004). It helps us understand how society experiences international water law. It does not confine itself to ‘good legal arguments’. It offers a lens to observe legal processes thorough the systemic trinity of *variation, selection, and retention*. It links legal issues with wider social questions by formulating three hypotheses.

*Hypothesis 1: Equitable utilisation norms incorporate variant possibilities to solve the problem of contingency;*

*Hypothesis 2: No significant harm norms select expectations worth protecting to solve the problem of confidence;*

*Hypothesis 3: Cooperation norms retain learning opportunities to solve the problem of trust.*

To clarify, our aim here is not to test how international law corresponds with reality. No hypotheses can fully explain the complex world. Instead, we aim to offer a mind-map on how law stabilises expectations amid uncertain conditions. This matters as a future without certainty and assurances would overwhelm decision-makers with complexity. Some predictability and conformity are required, which is the law's role.

### **A pragmatic account of international water law**

System theory offers a pragmatic rather than an idealistic account of international water law's function. Traditional disciplines often link international water law's function to values like equitable water allocation. While this is valid and useful from an aspirational viewpoint, it also creates disillusionment. It is susceptible to criticisms of scientific complexities, capitalist exploitation, and political power dynamics. However, if we observe how paradoxes inform and transform law, we arrive at a pragmatic understanding of law's function in three ways.

**Hypothesis 1 reveals the paradox of equitable utilisation norms:** These norms imbue aspirational goals but function by justifying temporary inequalities. They use optimistic language to avoid appearing discriminatory, but in practice they produce inequalities. This is not because they permit unequal treaty regimes that permit unequal water allocation. It is because they ensure that states can expect the equal opportunity to justify temporary inequalities. Flexible treaty escape clauses validating the non-fulfilment of normally expected water allocations offer examples. Consider how the Colorado Treaty (1922) conditions inequalities in temporal terms. *If there is a drought, then Mexico may reduce its water supply, but it must compensate for the shortfall over agreed subsequent periods (Art. 4B).* In short, equitable utilisation norms incorporate contingencies to cope with complexities. True, these norms cannot guarantee the reciprocal benefit-sharing of water uses. But equitable utilisation norms can ensure the expectation that equal chance is given to justify temporary inequalities for the sake of benefit-sharing aspirations.

### **Hypothesis 2 elucidates the paradox of no significant harm norms' legal orientation:**

These norms uphold stability and legal confidence not by prioritising environmental protection for all. Law always directs protection towards specific environments. Instead, stability stems from the 'adequate complexity of consistent decision-making' (Luhmann, 2004, p. 219). No significant harm norms incorporate adequate complexity to adapt to changing circumstances. This typically appears under the guise of 'best effort' norms (UNWC, 1997, Arts 7, 9, 26), which empowers law to justify and criticise current practice. But adaptation to change must also be underpinned by law's consistency requirements. No significant harm norms create these conditions, not primarily by identifying the causation of harm. That would lead to information overload. Instead, they transform unresolvable conflicts into manageable technical enquiries. These revolve around state conduct issues, e.g., whether states carried out risk assessments for planned projects. Admittedly, this legal stance is not ideal. It permits disregard of facts like who caused the harm, especially when

lawyers and jurist cannot legally constitute such facts. However, this stance is also vital. Only by distinguishing law from politics can law maintain legal confidence and stabilise expectations.

**Hypothesis 3 illuminates the paradoxical aspiration of cooperation norms:** It reveals that water security goals are essential, as they provide a source of creativity for cooperation. However, they are also elusive because risk-free water management is impossible. Where states and actors cannot resolve or directly confront this paradox, cooperation norms offer relief. This stems not from cooperation norms reaffirming shared values, but from managing risk in two keyways. First, where states underperform, cooperation norms use joint commissions (UNWC, 1997, Art. 8) to enhance learning opportunities. This empowers states to identify relevant questions and, thus, learn from and act on specific types of knowledge. Second, cooperation norms can legitimise decision plans, or else permit ignorance of specific side-effects. This allows states to focus on the relevant aspects of a situation and ignore irrelevant ones. It allows states to blend knowledge and ignorance to make the trust-building exercises of planning possible.

### **Mind-mapping international water law**

When one combines these three hypotheses, we gain a mind-map of how law stabilises expectations amid uncertain conditions. Equitable utilisation norms incorporate *variant* contingencies to cope with complexities. However, *selecting* relevant facts is never completely open. It depends on how no significant harm norms processes information to keep law distinct from politics. This is crucial to maintain legal confidence and avoid direct conflicts that could cause deadlock. Yet, strict legal rationality can also make law irrelevant. Therefore, cooperation norms are required to *retain* the plurality of viewpoints, which is a prerequisite of trust.

### **A lateral perspective of international water law**

Geopolitics can undermine the coherence of law's doctrinal sources. Upstream states traditionally favour equitable utilisation, while downstream states preference no significant harm norms. One cannot conceptualise how law stabilises expectations on a logical level via consistent doctrine. Instead, this can only be conceptualised laterally. That is, by observing how the routine operations of decision-makers deal with paradoxes.

Hypothesis 1 illuminates how equitable utilizations' norms of equity absorb paradoxes. Equity protects the equal opportunity to justify the non-fulfilment of normally expected water allocations.

Hypothesis 2 illuminates how no significant harm norms of procedure displace paradoxes. Procedure apportions facts about harm in a rhythm that is neither too fast for informed decisions, nor too slow for criticism and consultation.

Hypothesis 3 illuminates how cooperation norms of tacit consensus conceal paradoxes. Tacit consensus cultivates trust. Trust is crucial as a constant insistence on uncertainty would inhibit the search for new knowledge, new doubts and better insights.

For more information on this topic, you can read the full open access article [[here](#)].

*More information:* Kenneth Kang [k.w.kang@ljmu.ac.uk](mailto:k.w.kang@ljmu.ac.uk)

## References

Kang K (2023). On contingency, confidence and trust: how international water law stabilizes expectations under conditions of uncertainty. *Water International*, 48(6), 688-706.

doi:10.1080/02508060.2023.2257557,

<https://www.tandfonline.com/doi/full/10.1080/02508060.2023.2257557>

Luhmann N (2004). *Law as a Social System*. Oxford: Oxford University

UNWC (1997). Convention on the Law of the Non-navigational uses of international watercourses 1997.

---

**Dr Kenneth Kang** is a Lecturer of Law at Liverpool John Moores University, United Kingdom. He is interested in social theory and its application to current issues, in particular, international law's regulation of transboundary rivers and oceans.

The views expressed in this article belong to the individual authors and do not represent the views of the Global Water Forum, the UNESCO Chair in Water Economics and Transboundary Water Governance, UNESCO, the Australian National University, World Bank, Oxford University, or any of the institutions to which the authors are associated. Please see the Global Water Forum terms and conditions [here](#).

*Banner image: International water law needs to deal with a complex and uncertain world. A systems theory approach can assist here. (Image by [Alex Hu](#) from [Pixabay](#))*

