

NAVIGATING THE CONFLUENCE:

SOURCES OF RECONCILIATION FLOWING BETWEEN THE HUMAN RIGHT TO WATER AND ECONOMIC EFFICIENCY

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“You can comprehend a piece of river. A whole river ... is a thousand differing and not compatible things in-between. It is also an entity, one of the real wholes, but to feel the whole is hard because to know it is harder still.”

- JOHN GRAVES, GOODBYE TO A RIVER 4 (1960).



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I. INTRODUCTION

- The principles of water inherently flow counter to the theoretical currents of the law and economics analysis.
- Law and Economics: platform to reconcile individual, social, sovereign, and private-sector perspectives through directed efforts at improving efficiency, reducing bargaining costs, and promoting fairness.
- Purpose to recognize symbiotic contradictions and identify management strategies that embrace sentiments of economic efficiency throughout the global hydrocommerce arena.

Water is an individual human right and countries are obligated to ensure the accessibility and availability of water to its citizens.



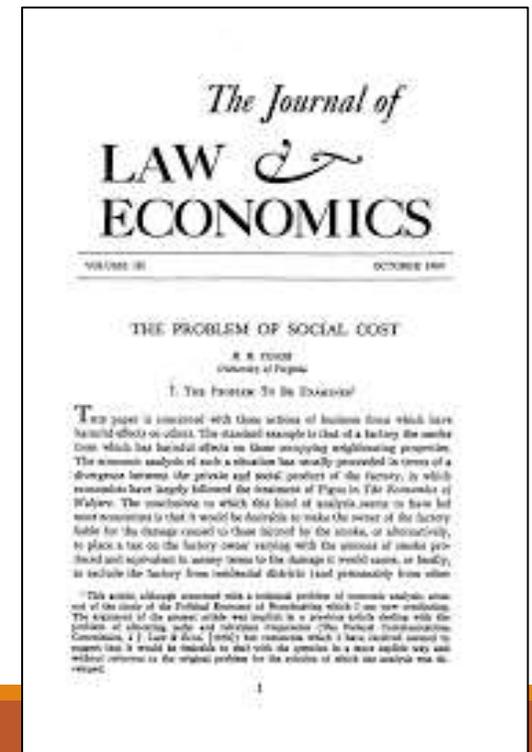
Public-sector continues to operate water distribution schemes with undesirable inefficiency.



To ensure that citizens have access to clean water, there exist circumstances whereupon governments should be compelled, or at least encouraged, to solicit private-sector capital investment in order to construct adequate water infrastructure and manage water distribution services.

a. COASE THEOREM & TRANSACTION COSTS

- Applicability of the Coase Theorem rests on the nature of transaction costs.
- When there are no transaction costs, the Coase Theorem applies and the legal system in question necessarily achieves its desirable outcome of an efficient equilibrium. .
- At its core, the Coase Theorem provides that the primary objective is to reach the most efficient allocation of resources (i.e., and for purposes of this article—access to water) with limited judicial and governmental involvement.
- Transaction costs are those derived from the creation of the bargain.



b. PRINCIPLES OF ECONOMIC EFFICIENCY

- Pareto efficiency examines various allocations of resources and the corresponding societal impact if those allocations are altered.
 - When an alteration can be made that makes at least one person better off and no person worse off, then this efficient outcome is *Pareto superior*.
 - In contrast, an alteration that leaves at least one person worse off is *Pareto inferior*, disregarding any beneficial effects to other parties.
 - An allocation is considered *Pareto efficient* or optimal when no change can be made without making at least one person worse off.
- For the sake of this economic efficiency analysis, the relevant parties include:
 1. **Individuals receiving the human right to water,**
 2. **Governments with an obligation to provide this right to water to the citizens of the state, and**
 3. **Private-sector investors seeking to profit within water industry.**

III. THE WORLD'S MOST "FUNDAMENTAL" RESOURCE

- No substitute for water.
- “Prerequisite for the realization of other human rights.”
- More than **two billion people** are affected by water shortages in over 40 countries.
- Peter Gleick warns, the failure to provide individuals with affordable and reliable access to clean water and sanitation represents “one of humankind’s greatest failings.”



A. GLOBAL WATER CRISIS

- 1.1 billion people do not have sufficient access to clean and safe water
- 2.6 billion people have no provision for sanitation.
- An estimated 1.4 million children under the age of five die every year due to lack of clean water and adequate sanitation.
- Australian water economist Michael D. Young, “[t]he existing inadequacies in provision of water and sanitation services generate considerable social costs and economic inefficiencies.”



B. GOVERNMENTAL FAILURE IN THE DELIVERY OF WATER

- In developing countries, an estimated 97% of all water distribution is managed by public-sector suppliers.
- Billions of individuals in developing countries are deprived of access to water.
- Multiple negative externalities plague public water utilities:
 - **Lack of funding and capital for development; significant debt**
 - **Political motivations; Preservation of failing status quo**
 - **Understaffed by experts (engineers, hydrologists, economists)**
 - **Bureaucratic operational structure**



C. BLUE GOLD: INVESTMENT IN THE GLOBAL WATER INDUSTRY

- The business of water provides investment opportunities within the realm of various integrated sectors:
 - Water distribution linked to infrastructure gaps;
 - Water utilities;
 - Treatment methodologies;
 - Practical needs in water industry sectors for emerging countries; and
 - Resource management
- Over the next twenty years, almost \$22 trillion (USD) will be necessary to fully modernize global water delivery and wastewater systems.



- Private-sector investors may play a serious role because the lifecycle costs to construct, maintain, and operate water infrastructure services are primarily capital costs.
- **Private equity** is important potential source of capital for the water sector.
- May drive consolidation, efficiency, and new investments in technology and infrastructure.
 - Operational expertise;
 - Capital commitment over long periods of time;
 - Institutional investors;
 - Global hydrocommerce and international markets.



MAR 27, 2014
Blackstone Energy Partners Establishes Global Water Development Platform
 New York, NY, March 27, 2014. Blackstone Energy Partners, Blackstone's (NYSE: BX) energy-focused private equity business, today announced a partnership with a highly experienced management team to create Global Water Development Partners, a new water-investment and development platform. The team will be led by Usha Rao-Monari, former Global Head of the International Finance Corporation's (IFC) Water and Wastewater Group, and Lars Thunell, former Chief Executive Officer of the IFC.



- **Infrastructure** has been described in broadly as the physical framework that supports & sustains virtually all **economic activity & growth**.
- As the “dominant constituent” for human life, the State’s inability to ensure the provision of water can have vastly negative consequences for both citizen and country.
 - Madras, India & Maputo, Mozambique: at least 50% of the population does not receive access to water from the main water infrastructure network.
 - Bandung, Indonesia: over 60% of the individuals are not served by the region’s main water network.
 - China plans to spend \$128 billion over the next 5 years on water infrastructure projects.



IV. LEGAL FOUNDATIONS FOR THE HUMAN RIGHT TO WATER

- Under international law, the human right to water continues to trend towards developing into a legal, **justiciable obligation** for States.
- Prevailing theory that the human right to water is evolving into a recognizable obligation for states within international and customary law.

A. DUBLIN STATEMENT (1992)

- Principle 4: “[w]ater has an economic value in all its competing uses and should be recognized as an economic good.”
- Guidance on Principle 4:

“Within this principle, it is vital to recognize first the *basic right of all human beings* to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an *economic good* is an important way of *achieving efficient and equitable use*, and of encouraging conservation and protection of water resources.”

B. U.N. GENERAL COMMENT NO. 15 (2002)

- General Comment was one of the “greatest victories to date or those seeking to establish water as a human right.”
- Right to water is dependent on three normative factors—availability, quality, and *accessibility*, as well as a substantive “obligation to fulfill” the right
 - Accessibility implicates notions of economic efficiency, from both a textual interpretation perspective and a practical implementation perspective.



- Paragraph 18: “Realization of the right should be feasible and practicable, since all States parties exercise control over a broad range of resources, including water, technology, financial resources and international assistance.”
- Action-based, obligates the government to take steps necessary to “fulfill the right by facilitating, promoting, and providing...” the accessibility of water to its citizens.
- Paragraph 27: explicitly references the role of third party actors, “Any payment for water services has to be based on the principle of equity...”
- Paragraph 41: “If resource constraints render it impossible for a State Party to comply fully with Covenant obligations, [the State Party] has the burden of justifying that every effort has nevertheless been made to use all resources.”

BUT, the human right to water will not become a reality unless governments possess realistic plans for implementation and financing.



V. ECONOMIC ANALYSIS OF THE RIGHT TO WATER AS A LEGAL REGIME

- As the right to water becomes a justiciable obligation for countries, perhaps this may trigger the increased participation of private-sector investors, as many of these countries could otherwise not finance these large-scale infrastructure projects.
- Three principal bargaining parties have an interest in the water distribution industry within the hypothetical country of Rioland.
- Analysis of each bargaining party indicates there is potential to achieve an efficient outcome because each party is ultimately made better off.
- The following analyses provide a **framework to achieve an efficient equilibria**—through cognitive recognition and practical consideration of predominant features within the water services industry.

- First, the **government of Rioland**, which has an overarching interest regarding the bargain concerning water delivery services and infrastructure.
- Second, and most importantly, we consider the **citizens of Rioland**. Two types of individuals exist throughout in this bargaining party:
 - those individuals that currently have access to water and those individuals that cannot access their right to water, either because of physical limitations (i.e., inadequate infrastructure) or financial limitations (i.e., cannot afford the resource).
- Lastly, the final interested party to this bargain are **private-sector investors** in Rioland's water distribution and infrastructure network.
 - Presume that a public-private partnership has been formed to operate water distribution and services, rather than absolute privatization.
 - Financial realities are evidence that these projects would not be possible without the public-private partnership.

Transaction Costs

- Circumstances that “incentivize activity” by promoting the prevalence of lower **transaction costs**
 - Transaction costs include administrative costs, scientific monitoring costs for hydrology and other disciplines, and brokerage service fees, among others, financing expenditures, costs associated with debt or interest rates, as well as employee fees and political costs.
- Coase Theorem may be limited in terms of its applicability.
- Even though the prevailing transaction costs limited the Coase Theorem’s applicability under these circumstances, policy-makers can still benefit from seeking to stimulate an **economic efficient outcome**.
- Pareto Efficiency is more appropriate measure.

Does Private-Sector Involvement in the Delivery of the Right to Water Yield an Efficient Economic Outcome?

- When an alteration can be made that makes at least one person better off and no one worse off—this allocation of resources will be an efficient outcome and Pareto superior.
- The Pareto efficiency continuum does not examine the benefits or detriments of various parties against each other as a direct comparison.
- According to one legal scholar, an efficient outcome of Pareto superiority represents a “change or action ... mak[ing] at least one person better off by his own standards and no one worse off by her own standards.” The scenario is perhaps the most socially, morally, and economically desired outcome. Gary Lawson, *Efficiency and Individualism*, 42 DUKE L.J. 53, 85 (1992).

A. EFFICIENT OUTCOME FOR RIOLAND CITIZENS

- **Indispensable Element for Human Life**
- From the individual's perspective, access to water has wide-reaching implications, which both directly and indirectly relate to health, jobs, social rights, gender equality, economics, and education, among other benefits.
- Providing citizens with the access to water results in an efficient outcome because it would make individuals better off.
- Social and economic development are directly linked by the centrality and fundamental nature of water.
- Access to water may help limit the prevalence of certain gender inequality issues.



B. EFFICIENT OUTCOME FOR RIOLAND GOVERNMENT

- **Precondition for Economic Progress**
- Lack of water affects the well-being of individuals and their quality of life, which in turn affects the State as a whole.
- This lack of clean water, whether in quality or quantity, influences the State's poverty and inability to escape poverty, food security, and the proliferation of disease.
 - According to resource economist Steve Hoffman, the “[l]ack of water does not cause poverty, but poverty virtually always includes a lack of water.”
- According to a cost-benefits report by the World Health Organization, and depending on location, the economic benefits of each dollar invested in improved drinking water and sanitation ranges from \$3 to \$34.



C. EFFICIENT OUTCOME FOR PRIVATE-SECTOR INVESTORS

- **“Blue Gold” & Wealth Maximization**
- Attractive to shareholders in era of corporate sustainability.
- In emerging markets the inefficiency among the current water distribution schemes will be inadequate to ensure the provision of water.



CONCLUSION

- ❖ The human right to water is a legal obligation owed to all citizens.
- ❖ If governments continue to fail, they should be encouraged to seek private-sector investors in order to successfully provide the citizens with water.
- ❖ Because all parties are each made better off, particularly the individuals, states, and private-sector, the preceding analysis suggests that private-sector participation in water distribution is an allocation of resources that is likely Pareto optimal, thus achieving an efficient equilibria.

