Ilmiy tadqiqotlar va ularning yechimlari jurnali
Aoka guvohnoma № 323759 ISSN: 3060-4818

CORPORATE WATER STEWARDSHIP IN U.S.: POWER ASYMMETRIES AND POLITICAL OUTCOMES

Nadjimova Charos Iskandarovna
First-Year Master's Student, Department of International Relations
University of World Economy and Diplomacy

Abstract: Corporate water stewardship has emerged as an important component of contemporary water governance as corporations increasingly recognize that water availability, quality, regulation, and social legitimacy affect business continuity and supply-chain stability. In the United States, this development occurs within a highly fragmented institutional environment in which federal agencies, states, municipalities, water utilities, irrigation districts, tribal governments, private enterprises, environmental organizations, and local communities exercise different forms of authority over water resources. This article examines corporate water stewardship in the United States through the analytical concepts of power asymmetry, legitimacy, collective action, and political outcomes. The analysis is based on peer-reviewed academic literature, U.S. government data, institutional reports, corporate disclosures, and established water-stewardship frameworks. U.S. Geological Survey data indicate that total water withdrawals in the United States were approximately 322 billion gallons per day in 2015, with thermoelectric power, irrigation, and public supply accounting for approximately 90% of total withdrawals [1]. These figures demonstrate the scale of water dependence within sectors in which corporations participate directly or through supply chains. The article finds that corporate stewardship can contribute to operational efficiency, watershed restoration, information sharing, collaborative investment, and policy implementation. However, corporate participation also creates risks associated with unequal financial resources, technical expertise, agenda-setting capacity, political access, and control over information. The central political outcome is therefore not simply greater corporate participation, but a transformation of the arenas in which water priorities are defined. Evidence from California demonstrates that collaborative corporate initiatives can complement public policy and produce basin-scale activities, while the literature on corporate power warns that voluntary governance can reproduce existing asymmetries if weaker stakeholders lack comparable capacity to participate. The article concludes that corporate water stewardship is most compatible with democratic and sustainable water governance when it remains transparent, context-based, publicly accountable, aligned with legally established water priorities, and supportive of public institutions and civil society rather than substituting for them.

Keywords: corporate water stewardship; United States; water governance; corporate power; power asymmetry; water policy; political outcomes; collective action; California; corporate sustainability.

Introduction

Water is simultaneously an environmental resource, an economic input, a public concern, and a politically regulated good. The scale of water use in the United States illustrates why corporate participation in water governance has become increasingly significant. According to the U.S. Geological Survey (USGS), approximately 322 billion gallons of water were withdrawn per day in the United States in 2015. Thermoelectric power accounted for approximately 133 billion gallons per day, irrigation for 118 billion gallons per day, and public supply for 39 billion gallons per day. Together, these three categories represented approximately 90% of total withdrawals [1].

Although not all water withdrawals are directly attributable to corporations, businesses are embedded throughout the major water-use categories. Energy producers require water for electricity generation; agricultural enterprises depend on irrigation; food and beverage companies depend on water

in production and agricultural supply chains; manufacturing companies require water for processing and cooling; and commercial enterprises depend on public water systems. Consequently, corporate exposure to water risks extends beyond the boundaries of individual facilities.

Corporate water stewardship developed partly in response to this reality. The CEO Water Mandate, launched in 2007 under the UN Global Compact, helped institutionalize the idea that companies should address water not only through internal efficiency measures but also through engagement with governments, communities, civil society, and other water users. The Corporate Water Disclosure Guidelines subsequently encouraged companies to disclose water-related governance, performance, risks, and external engagement [2].

The concept of stewardship differs from conventional corporate water management. Conventional management generally focuses on the firm's own withdrawals, consumption, wastewater, compliance, and operational efficiency. Stewardship expands the analytical scale to the watershed or catchment and emphasizes shared water challenges. The Alliance for Water Stewardship framework, for example, links responsible water use to social equity, environmental sustainability, economic benefits, stakeholder inclusion, and catchment-level management [3].

This expansion creates an important political question: when corporations participate in water governance, do they merely contribute resources to collective problem solving, or do they also acquire greater influence over decisions affecting a public and common resource? The question is particularly relevant in the United States because water governance is institutionally fragmented among federal, state, interstate, local, and specialized authorities. Earlier analyses of the U.S. federal system emphasized the distribution of responsibilities among levels of government and the difficulty of coordinating water policy across political jurisdictions [4].

The literature on corporate water stewardship identifies a similar tension at the global level. Sojamo argues that corporations can possess instrumental, structural, and discursive forms of power that affect water governance, while their legitimacy to participate in decisions concerning common resources cannot simply be assumed from their financial or technical capacity [5]. Rudebeck likewise demonstrates that corporate water strategies may influence broader water-governance agendas and acquire political legitimacy through partnerships and collective initiatives [6].

The purpose of this article is therefore to examine corporate water stewardship in the United States from the perspective of power asymmetries and political outcomes. Particular attention is given to the mechanisms through which corporations influence water governance, the institutional conditions that constrain or facilitate such influence, and the consequences for public policy, collective action, accountability, and water equity.

Methodology

The study applies a qualitative analytical methodology based on documentary and literature analysis. The research does not present an original statistical survey or claim causal relationships that cannot be established from available evidence. Instead, it synthesizes findings from peer-reviewed publications, academic books, U.S. government reports, corporate disclosures, international water-governance frameworks, and institutional publications.

The methodological framework combines four analytical dimensions. The first is water-resource significance, assessed through official U.S. water-use statistics. The second is corporate participation, examined through corporate water-stewardship frameworks and documented initiatives. The third is power asymmetry, analyzed using the literature on corporate power, legitimacy, stakeholder participation, and hybrid governance. The fourth is political outcomes, understood as observable changes in policy engagement, institutional collaboration, collective action, disclosure practices, watershed investment, and agenda-setting rather than as electoral outcomes.

The U.S. context is treated as a federal and multi-level governance system. This is important because corporate influence cannot be assessed independently of institutional structure. State governments occupy a central position in water planning and regulation, while federal agencies exercise authority in areas including interstate waters, environmental regulation, infrastructure, and federal lands. Local governments and water utilities also possess substantial operational responsibilities. Research on U.S. water planning has consequently emphasized the importance of intergovernmental coordination [4].

The study also uses California as a particularly relevant U.S. case because of the state's significant agricultural economy, recurrent water-supply pressures, complex water institutions, and development of corporate collective-action initiatives. A 2026 Pacific Institute report identifies California as an important testing ground for corporate water stewardship and estimates that, under business-as-usual conditions, the state faces a 10% water-supply gap by 2040, with annual economic costs of water scarcity estimated at more than $5 billion [7].

The analysis distinguishes between three forms of corporate engagement. The first is operational stewardship, including water efficiency, recycling, wastewater management, and compliance. The second is collective stewardship, involving collaboration with other companies, communities, NGOs, utilities, and government agencies. The third is policy engagement, involving corporate participation in public-policy discussions, regulatory processes, infrastructure planning, and water-policy advocacy. The distinction is necessary because the political implications of reducing water consumption inside a factory are different from those of participating in a policy process concerning water allocation.

Results

The evidence indicates that corporate water stewardship in the United States is closely connected to the scale and geographic concentration of water use. USGS data show that water withdrawals are not evenly distributed across the country. In 2015, more than half of total U.S. withdrawals were concentrated in 12 states, including California, Texas, Idaho, Florida, Arkansas, New York, Illinois, Colorado, North Carolina, Michigan, Montana, and Nebraska [1]. California alone accounted for approximately 9% of total U.S. withdrawals, predominantly because of irrigation, while Texas accounted for almost 7%, with major withdrawals associated with thermoelectric power, irrigation, and public supply [1].

These figures have direct implications for corporate water stewardship. Water risk is geographically specific: a reduction in water use at a facility may have substantial local benefits in a stressed basin but limited significance at the national scale. The CEO Water Mandate's guidance therefore emphasizes geographically explicit reporting and the differentiation of water withdrawals, consumption, discharge, water stress, and local context [2].

A second result concerns the institutionalization of voluntary corporate water governance. The CEO Water Mandate's Guide to Responsible Business Engagement with Water Policy identifies corporate engagement as extending beyond direct operations to interaction with government agencies, local communities, and civil-society organizations. The guide explicitly recognizes the risks of policy capture and unequal participation and recommends contextual assessment, stakeholder analysis, transparency, and avoidance of regulatory capture [8].

The Alliance for Water Stewardship similarly promotes a catchment-based approach. Its standard requires organizations to understand the water context in which they operate and to consider shared water challenges rather than focusing exclusively on facility-level performance [3]. This approach has encouraged a shift from isolated corporate efficiency projects toward collaborative watershed initiatives.

A third result is the growing importance of collective corporate action. The California Water Action Collaborative, for example, developed as a platform for companies and environmental organizations to coordinate responses to California's water challenges. Documented activities have included landscape restoration, groundwater recharge, agricultural practices, context-based water targets,

and efforts to align corporate action with public water policy [9]. The Santa Ana watershed pilot involved companies including Coca-Cola, Ecolab, Hilton, Nestlé USA, Nestlé Waters North America, Niagara Water, PepsiCo, and Target and sought to help companies understand local water conditions and coordinate with public-sector water managers and other stakeholders [10].

A fourth result concerns the relationship between corporate stewardship and disclosure. Zhang, Tang, and Huang find that corporate water governance, water-policy engagement, water actions, and water performance are associated with firms' propensity to disclose water information through voluntary reporting systems [11]. The study also shows that water-intensive industries can have different incentives for transparency and that information shared with institutional investors may become part of corporate self-regulation [11].

A fifth result is that corporate motivations are not necessarily identical to public environmental objectives. Jones, Hillier, and Comfort's analysis of leading food and beverage companies found that corporate water-stewardship commitments could be interpreted as being driven substantially by business imperatives, including reputation and corporate sustainability considerations, alongside environmental concerns [12].

Finally, recent evidence from California suggests that corporate stewardship is increasingly moving toward basin-scale collaboration. The 2026 Pacific Institute report concludes that individual operational improvements cannot fully manage basin-level water risks and that collaboration with communities, other water users, and public agencies is necessary. It further argues that corporate action has greater potential for durable impact when it complements public policy [7].

Analysis and Discussion

Power asymmetry is the central analytical issue in corporate water stewardship. Corporations and local communities rarely enter water-governance processes with identical resources. Corporations may possess financial capital, technical specialists, legal expertise, data, professional lobbying capacity, communications infrastructure, and established relationships with government agencies. Communities may possess local ecological knowledge and direct experience of water problems but have fewer financial and institutional resources.

Sojamo's analytical framework distinguishes several forms of corporate power. Instrumental power involves direct influence, including lobbying and organizational resources. Structural power concerns the position corporations occupy within markets, infrastructures, and value chains. Discursive power involves the ability to influence how problems are framed and which solutions are considered legitimate [5].

These distinctions are particularly important for U.S. water policy. A corporation does not need to obtain formal authority over water resources to influence water outcomes. Influence can occur through participation in stakeholder processes, provision of technical information, financing of watershed projects, policy advocacy, partnerships with NGOs, or the framing of water scarcity as a business-risk problem.

The political consequences of such influence are ambiguous. On one side, corporate participation can expand the financial and technical resources available for water management. The CEO Water Mandate explicitly recognizes that companies can contribute information, technology, financing, and implementation capacity to public water-policy objectives [8]. Corporate participation may therefore be beneficial where public institutions lack resources or where complex watershed problems require coordination across organizational boundaries.

On the other side, the same resources can generate unequal political influence. The 2010 CEO Water Mandate guidance explicitly identifies concerns that private-sector involvement may drown out other voices and that corporate participation can create policy-capture risks [8]. The document therefore recommends that companies avoid policy and regulatory capture and promote inclusive participation [8].

The problem is not simply whether corporations have power; corporations necessarily possess economic resources that can affect water systems. The central issue is how that power is institutionally constrained and directed. A corporation investing in groundwater recharge under a publicly established watershed plan exercises power differently from a corporation attempting to reshape allocation rules primarily to protect its own water access.

The distinction between stewardship and political advocacy is consequently important. Operational efficiency generally produces relatively clear private and environmental benefits. Political engagement is more complex because decisions concerning water allocation, pricing, infrastructure, environmental flows, and regulation distribute benefits and costs among competing users.

In the U.S. federal system, fragmentation can increase the importance of private actors. Earlier research identified the distribution of water responsibilities across federal, state, and local institutions as a persistent coordination challenge [4]. More recent research similarly finds that state governments play an important intermediary role in water-resource planning and that institutional arrangements differ considerably among states [13].

This fragmentation can create opportunities for corporations to operate across institutional boundaries. A company with facilities in several states can interact with multiple regulatory systems and water institutions, while smaller communities may be constrained to a single watershed or municipal jurisdiction. Consequently, corporate organizational scale can itself become a source of structural power.

The political significance of collective corporate initiatives is particularly visible in California. The California Water Action Collaborative provides an example of companies acting collectively rather than independently. Such arrangements can reduce transaction costs, facilitate information exchange, attract investment, and connect corporate resources with public-sector priorities. The 2026 Pacific Institute assessment concludes that structured, third-party-facilitated collaboration can enable companies to undertake actions that would be difficult for individual firms to implement independently [7].

Nevertheless, collaboration does not automatically eliminate asymmetry. If corporations dominate agenda-setting, define success primarily through business risk, or possess greater technical and financial resources than community participants, a collaborative forum can reproduce existing inequalities under the appearance of consensus. This concern is consistent with Sojamo's argument that power asymmetries must be explicitly acknowledged rather than treated as irrelevant to stewardship [5].

Rudebeck's analysis adds another dimension: corporate water initiatives may acquire political legitimacy through participation in multi-stakeholder arrangements. Corporate actors can become accepted as legitimate participants because they possess relevant resources and because governments or civil-society organizations perceive their participation as useful [6]. However, usefulness and legitimacy are not identical. A company may be technically valuable to a watershed initiative without possessing democratic authority to determine public priorities.

The concept of legitimacy is therefore essential. Water is not simply an input to production. It supports public health, ecosystems, agriculture, households, cultural values, and economic activity. Corporate participation should consequently be evaluated according to whether it supports collectively established public objectives rather than solely whether it reduces corporate water risk.

The literature on virtual water and hydrosocial territories reinforces this concern. Vos and Hinojosa demonstrate that corporate supply chains can influence water governance beyond the physical location of corporate facilities. Export-oriented production and corporate standards may reshape local water-use practices and redistribute influence among actors [14]. Although their analysis is international rather than exclusively U.S.-based, its theoretical implication is relevant to U.S. agricultural and food supply chains: corporate water governance can operate through purchasing standards, supplier requirements, certification systems, and investment relationships.

Corporate disclosure represents another mechanism of political influence. Voluntary disclosure can improve transparency by providing stakeholders with information concerning withdrawals, water-

stressed locations, regulatory compliance, and corporate responses [2]. However, disclosure is most valuable when the information is comparable, geographically specific, independently verifiable, and relevant to public water challenges. The existence of a sustainability report alone does not establish that a corporation's water impacts have been reduced.

The evolution of water stewardship therefore reflects a broader transition from private environmental management toward hybrid governance. Yamada describes corporate water stewardship in terms of goal-based hybrid governance, in which governments, international organizations, civil society, and companies interact to achieve water-related objectives [15]. Such hybrid governance can be useful when no single actor possesses the information, authority, or resources required to solve a complex watershed problem.

However, hybrid governance should not be confused with privatization of public authority. Public institutions retain a fundamental role in establishing legal rights, environmental standards, allocation rules, public-health protections, and accountability mechanisms. Corporate stewardship is most defensible when it supplements these functions.

The U.S. water-use data reinforce the importance of this distinction. In 2015, self-supplied industrial withdrawals were approximately 14.8 billion gallons per day, representing 5% of total withdrawals and 8% of withdrawals excluding thermoelectric power [1]. Industrial water use is therefore substantial but smaller nationally than irrigation and thermoelectric withdrawals. This means that corporate water stewardship cannot be evaluated solely through direct industrial consumption. Corporate influence also occurs through energy consumption, agricultural supply chains, food production, municipal systems, infrastructure investment, and policy engagement.

The political outcomes associated with corporate stewardship can therefore be grouped into several categories. The first is **policy alignment**, where companies align investments with publicly established water priorities. The second is **institutional coordination**, where companies help connect otherwise fragmented actors. The third is **resource mobilization**, where private funding complements public resources. The fourth is **information production**, where corporate monitoring improves understanding of water use and risks. The fifth is **agenda-setting**, where corporations influence which water problems receive attention and which solutions are considered viable.

The first four outcomes can generate significant public benefits when appropriately governed. The fifth requires the greatest scrutiny because agenda-setting is inherently political. If corporate water stewardship causes water policy to prioritize business continuity over drinking-water security, environmental protection, or equitable access, stewardship can reinforce rather than resolve water insecurity.

For this reason, corporate water-policy engagement should satisfy several conditions. First, companies should disclose their policy positions and relevant financial or political interests. Second, corporate engagement should be consistent with applicable water laws and public planning processes. Third, affected communities should have meaningful opportunities to participate. Fourth, corporate investments should not be used as substitutes for legally required environmental compliance. Fifth, water targets should reflect basin conditions rather than only corporate-wide averages. Sixth, independent verification should be used where feasible.

The Alliance for Water Stewardship's catchment-based approach provides a useful institutional model because it requires attention to local water context, stakeholder interests, water balance, water quality, governance, and shared challenges [3]. Similarly, the CEO Water Mandate's guidance emphasizes stakeholder engagement, transparency, political-economy assessment, and avoidance of policy capture [8].

The California experience demonstrates the potential of this approach. The 2026 Pacific Institute report identifies collective action, alignment with public policy, and investments beyond individual facilities as central characteristics of the next phase of corporate water stewardship [7]. The significance

of this development is that corporate stewardship becomes less about demonstrating that an individual factory uses less water and more about whether corporate participation contributes to measurable improvements in the water system shared by multiple users.

At the same time, the literature cautions against assuming that corporate initiatives are inherently democratic. Rudebeck's analysis of corporate legitimacy and Sojamo's examination of corporate power demonstrate that corporate participation can simultaneously provide resources and create governance risks [5; 6].

The appropriate policy response is therefore neither unconditional acceptance nor categorical rejection of corporate water stewardship. The more defensible position is institutional conditionality: corporations should participate where their knowledge, financing, technologies, and organizational capacities can contribute to public water objectives, but participation should occur within transparent institutions that preserve public accountability and stakeholder inclusion.

Conclusion

Corporate water stewardship has become an increasingly important element of contemporary water governance in the United States. The scale of U.S. water use, the geographic concentration of withdrawals, the economic dependence of corporations on reliable water supplies, and the increasing complexity of watershed management all provide incentives for companies to engage beyond their own facilities. USGS data demonstrate that irrigation, thermoelectric power, and public supply constituted approximately 90% of U.S. withdrawals in 2015, illustrating the interconnectedness of corporate activity, infrastructure, agriculture, energy, and public water systems [1].

The evidence reviewed in this article indicates that corporate water stewardship can produce positive outcomes through operational efficiency, watershed restoration, collective investment, information sharing, disclosure, and cooperation with public agencies. The California experience provides particularly relevant evidence that coordinated corporate action can complement public policy and address challenges that cannot be effectively managed at the level of individual facilities [7].

At the same time, corporate stewardship creates a fundamental governance problem: corporations do not enter water-policy processes with the same resources as communities, smaller water users, or civil-society organizations. Financial capacity, technical expertise, access to decision-makers, control over information, and organizational scale can produce significant power asymmetries. The literature therefore demonstrates that corporate participation can simultaneously improve water governance and increase the risk of unequal influence [5; 6].

The political outcome of corporate water stewardship depends primarily on institutional design. Where corporate action is transparent, catchment-based, stakeholder-inclusive, independently accountable, and aligned with public water priorities, it can strengthen collective water governance. Where corporate initiatives substitute for public regulation, obscure political interests, privilege business continuity, or exclude weaker stakeholders, they may reinforce existing power inequalities.

The central policy implication is that corporate water stewardship should complement rather than replace public water governance. Governments should maintain responsibility for legal standards, allocation systems, environmental protection, public health, and accountability. Corporations can contribute financing, technology, data, operational expertise, and collective-action capacity, but their legitimacy to influence public water priorities should derive from transparent participation rather than economic power alone.

For the United States, the most promising model is therefore a form of accountable hybrid governance in which corporations participate actively but operate within publicly defined institutional boundaries. Such an approach recognizes the legitimate role of companies as major water users while preserving water as a resource whose management must ultimately respond to broader social, ecological, and public-interest objectives.

References

1. Dieter C.A., Maupin M.A., Caldwell R.R., Harris M.A., Ivahnenko T.I., Lovelace J.K., Barber N.L., Linsey K.S. Estimated Use of Water in the United States in 2015. U.S. Geological Survey Circular 1441, 2018, pp. 1–12, 28–31, 39–48, 50–55.
2. CEO Water Mandate, CDP, Pacific Institute, World Resources Institute, PwC. Corporate Water Disclosure Guidelines: Toward a Common Approach to Reporting Water Issues. 2014, pp. 1–10, 25–32, 47–64.
3. Alliance for Water Stewardship. The AWS International Water Stewardship Standard, Version 1.0. 2014, pp. 7–15, 21–36.
4. Dworsky L.B., Allee D.J., North R.M. Water Resources Planning and Management in the United States Federal System: Long-Term Assessment and Intergovernmental Issues for the Nineties. Natural Resources Journal, 1991, Vol. 31, No. 3, pp. 475–547.
5. Sojamo S. Unlocking the "Prisoner's Dilemma" of Corporate Water Stewardship in South Africa—Exploring Corporate Power and Legitimacy of Engagement in Water Management and Governance. Sustainability, 2015, Vol. 7, No. 6, pp. 6893–6918.
6. Rudebeck T. Corporations as Custodians of the Public Good? Exploring the Intersection of Corporate Water Stewardship and Global Water Governance. Springer, 2019, pp. 1–17, 83–106, 133–179.
7. Snyder C., Corwin E., Larson W., Weintraub L., Hoversten S., Reeve T., McCaulou S. Advancing Corporate Water Stewardship: Insights From the California Experience. Pacific Institute, 2026, pp. 1–25.
8. Morrison J., Schulte P., Christian-Smith J., Orr S., Hepworth N., Pegram G. Guide to Responsible Business Engagement with Water Policy. CEO Water Mandate/Pacific Institute/WWF International/Water Witness International/Pegasys Strategy & Development, 2010, pp. 9–17, 35–64.
9. California Water Action Collaborative. Corporate Water Stewardship and the Case for Green Infrastructure. 2017, pp. 1–8.
10. CEO Water Mandate/Pacific Institute. Setting Site Water Targets Informed by Catchment Context: Santa Ana River Watershed Case Study. 2017, pp. 1–12.
11. Zhang L., Tang Q., Huang R.H. Mind the Gap: Is Water Disclosure a Missing Component of Corporate Social Responsibility? British Accounting Review, 2021, Vol. 53, No. 1, Article 100940, pp. 1–20.
12. Jones P., Hillier D., Comfort D. Water Stewardship and Corporate Sustainability: A Case Study of Reputation Management in the Food and Drinks Industry. Journal of Public Affairs, 2015, Vol. 15, No. 1, pp. 116–126.
13. Loucks D.P., van Beek E. Water Resources Planning and Management: An Overview. In: Water Resource Systems Planning and Management: An Introduction to Methods, Models, and Applications. Springer, 2017, pp. 1–49.
14. Vos J., Hinojosa L. Virtual Water Trade and the Contestation of Hydrosocial Territories. Water International, 2016, Vol. 41, No. 1, pp. 37–53.
15. Yamada T. Corporate Water Stewardship: Lessons for Goal-Based Hybrid Governance. In: Kanie N., Biermann F. (eds.), Governing through Goals: Sustainable Development Goals as Governance Innovation. MIT Press, 2017, pp. 187–210.
16. Hardin G. The Tragedy of the Commons. Science, 1968, Vol. 162, No. 3859, pp. 1243–1248.