Asian And Pacific Economic Review
ISSN: 1000-6052

INTER-STATE RIVER WATER SHARING DISPUTES IN INDIA: APPLICATION OF NO HARM PRINCIPLE - OBLIGATION NOT TO CAUSE SIGNIFICANT HARM AMONGST STATES

Harmeet S Sachdeva
PhD Scholar, School of Law, GD Goenka University, SOL (PT)
Dr. Ankita Sharma
Associate Professor, School of Law, GD Goenka University, SOL
https://doi.org/10.5281/zenodo.19222161

Abstract

In India's interstate river water disputes, the principle of obligation not to cause significant harm plays a critical role in shaping the framework for cooperation and dispute resolution. This principle seeks to ensure that the activities of one state do not negatively impact another state's access to shared water resources, promoting a fair and equitable distribution of trans-boundary water resources, enhancing transparency, no adverse impact on environment and ecological system. Besides avoiding damage, states must utilize shared water resources fairly and sensibly. This paper analyses and examines the practice of doctrine of 'No Harm Principle' that is the obligation to refrain from causing significant harm, as a vital component of international environmental law and the management of water resources, especially in river water sharing disputes in India. It basically states that countries are required to make sure their actions do not inflict significant damage on the environment, ecosystems, or the shared resources of neighbouring nations. This paper highlights the relevance of the said principle in the context of river water disputes. In India, several river basins feature an intricate network that cover several states, with numerous rivers like the Cauvery, Narmada, Krishna, Mahanadi, and Godavari being utilized by two or more states and rivers Indus, Ganges, and Brahmaputra covering two or more nations including India. These shared water resources frequently result in disputes regarding water use. This paper highlights the significance of no harm principle through various judgements/decisions in resolving the inter-state conflicts that one state's actions should not negatively impact the water availability or quality for other states that share same river, and that there should be no detrimental effects on the environment and ecological systems of the respective states. This paper evaluates to what extent this principle has been adopted explicitly or implicitly in India's inter-state water management system. This paper examines its theoretical basis and evaluates its limited integration into India's domestic inter-state river dispute framework. It analyzes constitutional design, tribunal practice, political economy influences, and institutional shortcomings. The paper concludes with recommendations for incorporating procedural safeguards such as mandatory notification, environmental impact assessment, data transparency, and improved river basin governance mechanisms.

1. Introduction

Water is a shared and finite resource that transcends political boundaries. In India, rivers such as the Ganga, Brahmaputra, Godavari, and Cauvery form the lifeline of millions. Conflicts over the use and distribution of these waters highlight the necessity of principles that ensure equity, sustainability, and non-harm. The "no significant harm" principle, originating in international environmental law, asserts that states must prevent activities within their

jurisdiction from causing significant damage to other states or regions sharing the same resource[1].

2. History, Genesis and Legal foundation of the Principle

International Legal Foundation

The no-harm rule evolved through customary international law and was formally recognized in:

1. UN Watercourses Convention (1997)[2]
Under the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (1997) ("UNWC"): Article 7(1) states that "Watercourse States shall, in utilising an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States." Article 7(2) adds that where significant harm is caused, the State whose use causes such harm shall, in consultation with the harmed State, take appropriate steps to eliminate or reduce such harm and, where appropriate, discuss compensation. The doctrine is also highlighted in earlier work by the International Law Commission (ILC) in its Draft Articles: Article V(1) provides that "Watercourse States shall exercise due diligence to utilize an international watercourse in such a way as not to cause significant harm to other watercourse States."

2. The Stockholm Declaration (1972)[3]: Principle 21 of the Stockholm Declaration states that "nations have the authority to use their own resources but have the responsibility to ensure their activities do not damage the environment of other states or areas beyond national jurisdiction. This principle is considered a foundation of international environmental law, establishing harmony between a state's authority to development and its responsibility to prevent trans-boundary harm".

3. The Rio Declaration (1992)[4] – Principle 2, which reiterates the obligation of states to ensure that activities within their jurisdiction do not cause damage to the environment of other states.

4. Helsinki Rules (1966)[5] and **Berlin Rules (2004)[6] -** Both the rules codify the obligation not to cause significant harm as part of the equitable and reasonable utilization of shared water resources.

5. Customary International Law & Case Law - The Trail Smelter Arbitration (U.S./Canada, 1938 & 1941) between the U.S. and Canada[7], which established that a state bears responsibility for harm caused across borders. It established the general principle that no state has the right to use its territory in a way that causes harm to another. The

[1] UN Convention on the Law of the Non-Navigational Uses of International Watercourses (1997)
[2] Id.
[3] United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm
[4] United Nations Conference on Environment and Development, 3-14 June 1992, Rio de Janeiro
[5] The Helsinki Rules on the Uses of the Waters of International Rivers Adopted by the International Law Association at the fifty-second conference, held at Helsinki in August 1966. Report of the Committee on the Uses of the Waters of International Rivers (London, International Law Association, 1967)
[6] Berlin Rules on Water Resources, August 21, 2004, Berlin
[7] The Trail Smelter Arbitration Case (United States vs Canada) 1941, U.N. Rep. Int'L Arb. AWARDS 1905 (1949)

Gabčíkovo–Nagymaros Project (Hungary/Slovakia, ICJ 1997)[8] reaffirmed the duty to prevent transboundary environmental harm. The International Court of Justice (ICJ) has confirmed that the principle is part of customary international law. In the case of the Silala, the Court said that every riparian state is both entitled to equitable and reasonable sharing of an international watercourse and obliged not to exceed that entitlement so as to deprive the other of its reasonable use; and further, the obligation includes "to take all the means at its disposal … to avoid activities which … cause significant damage to the environment of another State" in a transboundary context.

3. Relationship with Equitable and Reasonable Utilization and other Principles of Water Courses

While the no-harm principle protects downstream interests, it must be balanced with the principle of equitable and reasonable utilization, which allows all riparian entities fair access to shared water resources. The synergy between these principles is essential to maintain both development and cooperation. The doctrine of no-significant-harm rule is strongly associated with, and sometimes packs into, remaining relevant principles. The principle of equitable and reasonable utilisation of shared watercourses (i.e., all riparian states are entitled to beneficial uses, while recognising other states' rights) – e.g., Articles 5 & 6 of the UNWC[9]. The obligation to cooperate**,** to exchange data and information, to conduct prior notification for planned measures that may have significant adverse effect, and to negotiate/consult are reflected in the UNWC[10] Articles 8, 11–13. The harm in question may be to human health, living organisms, ecosystems, use of waters, etc. In summary, a State (or riparian entity) must when using a shared watercourse, act with due diligence so that its use does not significantly harm other riparian states. If significant harm occurs despite efforts, it must, in the absence of an agreement otherwise: consult with the harmed State, mitigate / eliminate harm, and where appropriate discuss compensation. Prior notification or consultation is especially required when planned measures may have "significant adverse effect."[11] The phrase "significant harm" lacks a strict definition, allowing for subjective interpretation and the necessity of a context-aware evaluation[12]. It is often balanced with the principle of equitable and reasonable utilization, creating a dual framework for cooperative water management[13]. Scholarly commentary emphasizes that while the domain of "significant harm" is not precisely described or explained, the obligation requires cooperating states to take preventive, mitigative and possibly compensatory measures when substantial damage is caused.

The Doctrine of Equitable Apportionment is well accepted in Indian inter-state water dispute jurisprudence. The tribunals in India use this doctrine, considering multiple factors (climate, hydrology, dependency, past use, etc.) when apportioning water. Equitable apportionment

[8] Gabčíkovo–Nagymaros Project (Hungary/Slovakia, ICJ Rep1997)
[9] Supra Note 1
[10] Supra Note 1
[11] Mara Tignino, AJIL Unbound, Volume 115, 2021, pp. 189 – 194
[12] Leb, Christina & Wouters, Patricia. (2013). Water Security: Principles, Perspectives, and Practices. 26-46. 10.4324/9780203113202).
[13] Singh, A. & Gosain, A. Principle of No Significant Harm (issue brief). The Hindu Centre for Politics and Public Policy

inherently carries a "no-harm" flavour: rather than letting upstream states take unbounded water, the apportionment must be fair, considering potential injury to downstream parties[14].

The contradiction arises between the equitable and reasonable use principle (Article 5, UNWC[15]), and the no significant harm principle (Article 7). Equitable use allows reasonable utilization of shared water, even if some minor harm occurs as long as it's equitable and balanced. No harm sets a stricter standard, prohibiting harm entirely unless justified and mitigated. Recent and relevant decisions by the International Court of Justice (ICJ) and the International Law Commission (ILC) treat these principles as complementary, not hierarchical states must aim for equitable use, and take due diligence to prevent significant harm.

3.1 Approach and limited application in Indian Inter-State River water disputes context

The issue to be seen is whether and how the no-harm principle has or hasn't been invoked in Indian disputes. The federal system of India provides that, water is subject of state jurisdiction (State List-Entry 17), but river valleys and inter-state rivers fall under Union List-Entry 56. The Inter-State Water Disputes Act, 1956 (ISWD Act[16]) basically governs the mechanism for resolving inter-state river sharing conflicts in India. Inter-state river disputes in India are guided by a statutory framework set up domestically and guided by the Inter-State River Water Disputes Act, 1956 (as amended) and Article 262 of the Constitution. The ISWD Act provides the establishment of inter-state river water tribunals, data sharing bank, and it generally prohibits ordinary court jurisdictions in several disputes signifying inter-state water dispute resolution mechanism as a statutory laid tribunal process rather than a resolving process through common-law or doctrine-based. The Act examines adjudication wherein the concerned states' interests are "affected prejudicially" by another state's actions, but it does not clearly incorporates the international "no-significant-harm" term or meaning[17].

Indian courts and tribunals have generally put in principles of equitable and reasonable use apportionment besides regionally negotiated allocations instead of framing disputes specifically as violations of a "no-harm" duty as in international law. Primarily, Tribunal proceedings (e.g., Cauvery, Krishna and others) generally considers and focuses on irrigation demands, hydrology, prior uses, negotiated shares and political issues while arriving at a decision rather than a doctrinal application of no-harm. The long time span of tribunal processes (Cauvery tribunal took many years from reference to award) and frequent political interventions illustrate the ascendancy of technical, legal and political framework over an adoption of international rules and norms[18].

Tribunal reports in cases such as the Cauvery, Krishna, and Ravi-Beas disputes focus primarily on equitable apportionment and historical usage. Although considerations of downstream impact appear indirectly for example, in minimum flow requirements, they are not framed explicitly through the lens of the no-harm doctrine. This contrasts with

[14] A. Richards and N. Singh, Inter-state water disputes in India: Institutions and policies, International Journal of Water Resources Development 18(4), 617, 611-625 (2002).
[15] Supra Note 1
[16] The Inter-State River Water Disputes Act, 1956
[17] Sharad S Javali, Water Disputes over Inter - State Rivers: The Indian Experience, Christ University Law Journal, 4, 2 (2015), 159-195 ISSN 2278-4322|doi.org/10.12728/culj. 7.10
[18] Venkatesan J., "Notify Cauvery final award before Feb. 20, SC tells Centre", The Hindu, Feb. 20, 2013.

international practice, where notification and mitigation obligations are procedural cornerstones. Indian tribunals rather work out allocations, urge to follow seasonal flow schedules, and recommend the establishment of regulatory and monitoring bodies. Thus the core rationale aligns with equitable use rather than harm prevention or reduction.

Article 262 of the Indian Constitution takes a deviation from standard judicial review by empowering Parliament to create mechanisms for inter-state water dispute resolution and permitting it to block the Supreme Court of India's authority. It thus results in the Inter-State River Water Disputes Act of 1956 (ISRWDA) operationalizing this constitutional provision. The absence of provisions relating to harm-prevention structure, cumulative impact evaluation, prior notification and ecological flow requirements etc. creates a structural gap in the system. The statute in India focuses primarily on adjudications consequent to occurrence of disputes rather than on prevention of inter-state water disputes. Tribunals formed under the Act depend heavily on technical and data submissions by the concerned state governments. Despite, the reliance of the Court and Tribunals on availability of verified and true data by the concerned states, the states often provide contradictory data. This results in tribunals struggling to assess whether harm has occurred or is likely to arisen. So there is no source of an independent hydrological data. This lessens the scope for incorporating no-harm reasoning into disputes.

3.2 Relevance to Domestic Inter-state River sharing in India

The principles of equitable use, no significant harm and prior notification are expressly held to be customary international law and hence binding in practice irrespective of the point that even though India is not a party to the UNWC,[19]. While most of the domestic Indian River water disputes are within the boundaries of the country (shared between two or more Indian states), the doctrine still provides a valuable guidance. The Indian legal framework for inter-state river water disputes is set up by the Interstate River Water Disputes Act, 1956 (ISRWD Act) under Article 262 of the Indian Constitution. Domestic tribunals (for example under this Act) may not generally apply the international law "no significant harm" formula, but the notion of not excessively harming downstream states is inferred in many inter-state processes, negotiations and tribunal adjudications. The tribunals have mostly depended on socio-economic needs, irrigation, basin and hydrological data including the historical usage. The inter-state water dispute resolving process is heavily shaped by electoral and economics based politics[20].

Indian tribunals and courts have more often than not, applied principles of equitable and reasonable use along with regionally negotiated allocations instead of encasing inter-state river water disputes as clear violation of a "no-harm" duty as in international law. Tribunal proceedings (e.g., Cauvery, Krishna and others) focus on irrigation demands, usage history and prior agreements, hydrology data and negotiated shares rather than a doctrinal application of no-harm resulting in political arguments and delays. The outcome of the decision of the conflict in tribunal processes (Cauvery tribunal took a very long time from original reference

[19] Harsh Vasani, International water law and hydropolitics: an enquiry into the water conflict between India and Nepal, Water International, 2023, Vol. 48, No.2, 259-281.
[20] Srinivas Chokkakula, Disputes, (de)Politicization and Democracy: Interstate Water Disputes in India, Working Paper No. 108 RULNR Working Paper No. 13 January, 2012; Chokkakula, Srinivas. Disputes, (de)Politicization and Democracy: Interstate Water Disputes in India (RULNR Working Paper No. 13, CESS, Jan 2012). (On tribunal delays, politics, and governance.)

to the decision) and regular political disputations shows that there is negligible adoption of international rules and norms rather more inclined towards domestic technical and legal issues and datas. Some scholars argue that even for purely domestic inter-state basins, the logic of the obligation not to cause significant harm is relevant: upstream states should consider downstream impacts (for agriculture, ecology, livelihoods) and downstream states should have a right to reasonable use without being unduly harmed[21]. The doctrine helps frame the viewpoint that water sharing is not only an entitlement but also a duty of care among co-riparian states (within India).

3.3 Illustrative Reference: Indian States' River Disputes and the No-Harm Principle

Key Indian Inter-State Water Disputes Where the No Harm Principle is Relevant

Some examples show how the doctrine might be seen in India's context:

Cauvery Water Dispute involving Karnataka, Tamil Nadu, Kerala, and Puducherry - The Cauvery River is one of the most contentious water-sharing disputes in India. The river originates in Karnataka, flows through Tamil Nadu, and then enters Kerala and Puducherry. Tamil Nadu has historically claimed a larger share of the river's water for irrigation, while Karnataka has argued that it needs more water for its own agricultural and drinking water needs, especially during periods of drought. The doctrine says that Karnataka should not proceed to cause significant harm to Tamil Nadu rather than avoid any damage, though in operation the tribunals and resolution process focusses on negotiations and share quantification. The downstream state (Tamil Nadu) has argued that upstream Karnataka's river water usage and reservoir working cause significant harm to its subsistence, water availability and agriculture and irrigation requirements. The doctrine of no harm principle is expressed in the need for fair, reasonable and equitable allocation of river water between the two states. Karnataka's building of reservoirs and consequently the release of water to Tamil Nadu have often been disputable. The classic case of evident example of harm under the no harm principle is the damage to agriculture and irrigation requirements in Tamil Nadu during water shortages due to Karnataka's withholding of water. The Supreme Court and The Cauvery Water Disputes Tribunal in their decisions have stepped in make efforts to ensure equitable and reasonable allocation, though this has not been able to fully settle the conflicts. It has been noted that time has come when India's river water sharing and water policy needs the coalition and sharing of transparent data regarding hydrological basins, and thereby incorporating the doctrine of non-harm principle even though it is not obligatory[22].

Krishna Water Dispute in which the concerning states are Karnataka, Andhra Pradesh and Maharashtra - The Krishna River flows through Karnataka, Maharashtra, and Andhra Pradesh. The states have been engaged in conflicts about the shares and ratio of quantity of river water sharing over how much water each state should be distributed from the river. The Krishna Water Disputes Tribunal (KWDT) receive the respective claims made by the specific concerned involved states regarding the shares in river water, but arguments arise over verification and the dominance of water-sharing governance have led to frequent conflicts. When one state starts a project for diversion of river waters or construct a dam such as the

[21] Nagheeby, Mohsen & Piri, Mehdi & Faure, Michael. (2019). The Legitimacy of Dam Development in International Watercourses: A Case Study of the Harirud River Basin. Transnational Environmental Law. 8. 1-32. 10.1017/S2047102519000128.

[22] Joy, K. & Society, Soppecom & Bhagat, Sarita & Samuel, Abraham. (2024). Water Sharing and Protection: Inter-State Dimensions. The Oxford Handbook of Environmental and Natural Resources Law in India.

Srisailam Dam, it usually negatively changes the flow of water to other states, thus violating the no harm principle. The examples of Karnataka's rerouting river for power generation and Maharashtra's plan to increase irrigation farms, could harm Andhra Pradesh's access to its equitable and reasonable share of river water. A central idea behind the no-harm principle in this dispute is that the actions of one state should not adversely affect the river water share of others. The Krishna River Water dispute involves Karnataka, Maharashtra, Andhra Pradesh and Telangana. As agriculture, irrigation and hydro-power capacity and development escalated, downstream states urged that upstream state's actions were reducing river water flows, thus leading to economic, ecological and environmental damage. The Krishna Water Disputes Tribunal allowed the concerns such as changes in irrigation and cropping design, silt accumulation, and ecological & environmental effects, but tried to resolve them within the structure of reasonable and equitable river water sharing rather than applying a strict no-harm principle. This case illustrates how the absence of procedural duties such as prior notification of upstream projects limits the practical relevance of the no-harm principle within India's federal system.

Mahanadi Water Dispute involving Odisha and Chhattisgarh - The Mahanadi River is shared by Odisha and Chhattisgarh, and the dispute revolves around the construction of dams and diversion of water by Chhattisgarh. Odisha has accused Chhattisgarh of building dams on the upper reaches of the river, which reduce the flow of water downstream to Odisha, affecting its agricultural and industrial sectors. The building of these dams and the withdrawal of water by Chhattisgarh may substantially reduce the water availability for Odisha, violating the no harm principle. The reduced flow impacts agriculture, as Odisha relies heavily on the river for irrigation. The dispute has led to the formation of a tribunal, where both states are expected to present their claims under the principle of fair, just, reasonable and equitable utilization.

Narmada Water Dispute concerning states of Gujarat, Madhya Pradesh and Maharashtra - The Narmada River flows through three states: Madhya Pradesh, Gujarat, and Maharashtra. The construction of the Sardar Sarovar Dam in Gujarat has led to protests, particularly from Madhya Pradesh, which claims that the dam adversely affects the water flow to its areas, leading to the flooding of agricultural lands and displacement of people (Narmada Bachao Andolan Case)[23]. The principle comes into play in ensuring that the construction of large infrastructure projects like dams does not harm the downstream or adjacent states. The dam project has caused significant environmental and social impacts in Madhya Pradesh, affecting their fair share of water. The resolution of the dispute involves balancing developmental needs with environmental and social impacts to prevent harm to the affected states.

Some of the leading Apex Court cases, judgments and decisions where the Supreme Court (or tribunals, interpreted by SC) has dealt with principles similar to "no-harm" (i.e., restricting one state from using river waters in a way that unjustly injures other states) are as follow:

"Rivers are "national assets**" -** In a 2018 judgment[24], the SC held that "waters of inter-state rivers are national wealth". It ruled that no state can assert exclusive holding of the waters just because river flows through it. The Court stated "Being in a state of flow, no state can claim exclusive ownership … no one can obstruct or divert it … each beneficiary has a right to just and reasonable use." This aligns with more equitable sharing — not a "first-come,

[23] Narmada Bachao Andolan v. Union of India (2000) – Balanced developmental needs with environmental protection

[24] I.A. No.95384 of 2019 in Original Suit No.1 of 2018 State of Tamil Nadu vs. State of Karnataka and Another

first-served" or absolute sovereignty over water (Dhananjay Mahapatra, Feb 17, 2018, The Times of India).

Similarly, the Supreme Court in the Cauvery Dispute (Feb 2018)[25] - In its Cauvery water dispute judgment, the SC reiterated that the river is a national asset. The Court dismissed approaches such as the Harmon Doctrine, which is based on absolute territorial sovereignty, and rather highlighted the need for "equitable, just and reasonable" utilization of water among riparian states. It further ordered the establishment of a Cauvery Management Board to monitor the implementation of its ruling, stressing the responsibility of the central government to guarantee equitable distribution. In its reportable judgment, the Supreme Court elaborated on the concept of a "reasonable and equitable share" for all basin states.[26]. The factors the Court considers for equitable share include: geography, hydrology, climate, past use, economic & social needs, population dependent on the basin, and "the degree to which the needs of a basin State may be satisfied without causing substantial injury to a co-basin State." This "without causing substantial injury" language is very close to the "no-harm" principle: it is not simply about dividing water, but about ensuring one state's use doesn't substantially harm another. The Court also refused to recognize absolute appropriation by upstream states; so long as their use is "just and reasonable," appropriation is not wrongful. In the Cauvery case, SC also took into account groundwater in its allocation. For instance, it reduced some allocation because groundwater was available in Tamil Nadu. The Court invoked Helsinki Rules (international water law rules)[27] to explain its approach. SC stated that "rivers are national assets" and no state can claim exclusive ownership. Importantly, SC prioritized drinking water requirement over irrigation in its equitable-use calculus.

Supreme Court in another case[28], the SC again held that a river flowing through states "constitutes a national asset" and rejected attempts by one state to appropriate the water exclusively for itself.

In Krishna Water Dispute[29], the Apex court highlighted that long-usage, customs, regulatory / judicial decisions must be factored in for water allocation. The Court observed that water is a constitutional concern: It noted that "right to water is a right to life" under the Constitution. While this case is more about legal framework and usage, it lays the groundwork for a more balanced shared use, not absolute appropriation. In a much older precedent (cited in later SC decisions), the Court observed that flowing water is a right publici juris (public right) that is not private property of any one riparian.

Mahadayi / Other Disputes - While SC has not always directly adjudicated on every inter-state tribunal award, commentators refer to SC's principles in later disputes. One of the determinant factor in Mahadayi water dispute, was just and reasonable use with no exclusive appropriation similar to SC's decision in other case[30]. As per analysis, SC's view is that "any more than a just and reasonable use would be wrongful or injurious to the downstream riparian State."

[25] Id
[26] (Report of the Cauvery Water Disputes Tribunal with the Decision, Volume V, Apportionment of the water of the Inter State River Cauvery, New Delhi 2007).
[27] Supra Note 5
[28] SLP / Review (2019) - In IA No.95384 / 2019 (related to inter-state river water)
[29] State of Karnataka vs State of Andhra Pradesh & Ors (2000)
[30] Reliance Natural Resources Ltd vs Reliance Industries Ltd on 7 May, 2010, AIRONLINE 2010 SC 285).

4. Challenges and Issues in Application among Indian States

Applying the obligation not to cause significant harm among Indian states (and in international contexts) faces several practical and legal challenges. The term "significant" is not clearly defined in either international law or domestic court rulings. There is no fix formula or parameters to evaluate the measurable amount of harm or to quantify it. For Indian states, the assessment of harm—be it agricultural loss, ecological damage, or impact on livelihoods—is complicated due to the diversity of river basins, variations in hydrology, seasonal changes, and different usage patterns. In the absence of explicit thresholds, upstream states may claim that their water use falls within acceptable limits, and therefore, no "significant harm" is occurring.

Upstream states often have development priorities such as irrigation, hydropower, and flood control, which necessitate the construction of infrastructure like dams and diversions. These projects can reduce water flows, alter the timing of those flows, or impact the ecology of downstream states[31]. Downstream states often argue that they have to bear adverse impacts from upstream activities. In India, several conflicts most notably the dispute between Karnataka and Tamil Nadu over the Cauvery River which highlights the friction between upstream and downstream regions. Although this concept has its roots in international law, it is equally relevant in domestic settings.

At the global level, the United Nations Watercourses Convention (UNWC) provides structured procedures for notification, consultation, and fact-finding. In contrast, India relies on the tribunal system established under the Inter-State River Water Disputes (IRWD) Act, which does not fully reflect all the procedural safeguards recognized in international law. Key elements such as systematic data prior notification and data sharing of major upstream projects, comprehensive ecological assessments and ecological & environmental flow considerations, and are not consistently embedded. Furthermore, neither Article 262 of the Constitution nor the ISRWDA explicitly requires measures like prior notification or environmental impact assessments for upstream developments. This gap allows states to proceed with projects without formal procedural duties toward co-riparian states.

Disputes over river waters in India frequently persist for longer periods. Challenges such as political considerations, competing and unverified claims, hydrological methods and variability, and inter-state dynamics often obstruct effective, smooth and timely resolution. Even after tribunals issue their decisions, implementation can face delays, resistance, or only partial compliance.

The doctrine addresses not only the deprivation of “use” for agricultural purposes or human needs but also the damage and adverse impact to living beings, ecosystems, environmental quality and human health. Inter-state river water disputes often focus on the shares or volumes of water, but they pay less attention to the timing and method of flows, ecological environmental factors, transportation of sediments and ecosystem services. Upstream projects have the propensity to alter river morphology, reduction in ecological flows, and impact fisheries, wetlands, and downstream livelihoods even if the amount of river water route

[31] Gaurav Atreya, Erich Emery, Nathan Rogacki, Martin Buck, Reza Soltanian, Drew McAvoy, Patrick Ray; Estimating the influence of water control infrastructure on natural low flow in complex reservoir systems: A case study of the Ohio River, Journal of Hydrology: Regional Studies; Volume 54; 2024, 101897, ISSN 2214-5818).

deflected appears modest. Acknowledging these impacts as forms of harm can be challenging.

For the doctrine to be effective in practice, upstream states should inform and share data with downstream states about consequential projects or river water rerouting that could potentially cause harm, as recommended by the UN Watercourses Convention (UNWC). However, this practice may be absent among the Indian states due to factors such as the absence of basin-level river monitoring boards and inadequate data sharing. Downstream states may feel wronged without prior and well-in-advance timely notifications and consultations leading to an increased trust deficit and absence of cooperation between the parties involved.

If harm occurs, the doctrine mandates the elimination or mitigation of that harm, and possibly compensation. In India, however, the mechanisms for compensating downstream states for damage caused by upstream usage are seldom clearly defined. The political and legal frameworks often lack strength or efficiency, resulting in the downstream state facing the consequences of damage—such as agricultural loss, ecological degradation, and impacts on livelihoods—without adequate means for redress.

5. Conclusion

The obligation not to cause significant harm is a pertinent doctrine in the management of inter-state river water sharing disputes. Though originated in the international law of trans-boundary Rivers, its implementation is highly relevant to India's many inter-state river sharing disputes. Harmony has to be created between the upstream and downstream states so that the states cannot act arbitrarily and cause any ecological imbalance. There exists a duty on the part of upstream states without regard to downstream impacts so that the interests of the concerned states are jeopardized.

However, the rule remains under-operationalised in the Indian context due to inadequate data/notification mechanisms, weak basin institutions, vague thresholds, and limited resolving mechanism. Strengthening procedural, institutional and legal regimes at both the state and basin level would help change this essential doctrine into practical implementation, sustainability, and co-riparian cooperation.

The no-harm principle offers a robust foundation for sustainable and cooperative inter-state river water sharing. However, its smooth application has been hindered by India's domestic dispute-resolution framework, which is constrained by federalism, constitutional limitations, political pressures, and statutory gaps. Strengthening transparent data systems, integrating procedural safeguards, and fostering inter-state cooperation are key steps toward operationalizing the no-harm principle. This would enhance advance cooperative federalism, increase ecological sustainability, and enable more equitable resolution of inter-state river disputes.

The no-harm principle is a vital tool for protecting downstream interests within India's inter-state river governance framework. Even though the existing present standards alone remain insufficient. The urgent requirement is for statutory clarity, depoliticized technical and scientific assessments, up to date data infrastructure, and treaty-like institutional mechanisms to translate the principle into effective practice. India's constitutional and statutory framework including Article 262 and the Inter-State Water Disputes Act along with persistent

political pressures, has so far curtailed the doctrine's full implementation. Targeted institutional, procedural, and technical reforms can meaningfully bridge the gap between principle and practice. Evidently, various judicial decisions have illustrated how the "obligation not to cause significant harm" determines India's inter-state river governance. Though never explicitly codified, tribunals and the Supreme Court have consistently upheld equitable allocations by safeguarding the ecological health of river basins, protecting downstream rights, and preventing harmful unilateral interventions.

The principle of no harm remains vital to ensuring equity, peace and sustainability in India's river governance. This no harm principle serves as a both legal and moral compass in inter-state disputes or international negotiations. For India, harmonizing development needs with environmental responsibility and cooperative river water management will be essential to safeguarding its rivers for future generations.

6. Recommendations

This is an urgent need to enact a comprehensive river basin management law aligned with the no-harm principle. Strengthening of inter-state river basin organizations may be undertaken for cooperative and connected decision-making. Emphasis on promoting joint technical, legal scientific monitoring and prior data sharing and exchange among the states may be enhanced. There is a dire necessity to institutionalize environmental impact assessments for inter-basin and trans-boundary river area[32]. The Act's data-bank provision should be made functional, transparent and accessible to all riparian states and the central government; independent monitoring reduces disputes about facts. There should be clear ideas as to what States or tribunals need to agree on what constitutes 'significant harm' in each basin e.g., reduced flows below ecological minimums, agricultural losses above a threshold, damage to ecosystems, livelihood impacts[33]. River basin authorities (or joint inter-state river boards) could be set up with representation from all riparian states, with responsibilities including data sharing, assessing the impacts of upstream developments, and monitoring water flows and usage. Upstream states should share data and give due information to downstream states of major infrastructure (dams, diversions) or large changes in utilisation. The downstream states should have significant consultation rights on the building of such structures. They should ensure minimum flows for environmental and ecological health of the river water, to prevent harm to downstream states due to upstream exploitation that neglects ecosystem needs. If harm occurs, both legal and financial mechanisms should be present to mitigate or compensate downstream states. Dispute resolution mechanisms, Real-time flow data, arbitration or expert panels should be established when states cannot agree. Although the doctrine originates in international law, India can explicitly integrate such requirements into central/state laws or adjudication frameworks for inter-state river water sharing.

[32] Zawahri, Neda & Schmeier, Susanne & McCracken, Melissa. (2025). The effectiveness of joint basin institutions in managing international water disputes. Environment and Security. 3. 10.1177/27538796251347886.

[33] Joyeeta Gupta, Jesse F. Abrams, David Armstrong McKay, Xuemei Bai, Kristi L. Ebi, Paola Fezzigna, Giuliana Gentile, Lauren Gifford, Syezlin Hasan, Lisa Jacobson, Aljoscha Karg, Steven Lade, Tim Lenton, Diana Liverman, Awaz Mohamed, Nebojsa Nakicenovic, David Obura, Johan Rockström, Ben Stewart-Koster, Detlef van Vuuren, Peter Verburg, Raimon C. Ylla-Català, Caroline Zimm. Thresholds of significant harm at global level: The journey of the Earth Commission, Earth System Governance, Volume 25, 2025, 100263, ISSN 2589-8116.

Tribunal awards should include clear and effective remedies along with strong compliance mechanisms. They need to outline monitoring duties, phased and system wise execution plans, and central supervision to ensure that downstream interests are genuinely safeguarded. By incorporating staged implementation, technical oversight, and regular review processes, tribunals can make the prevention of downstream harm practical and enforceable rather than merely idealistic. Additionally, provisions for penalties in cases of non-compliance should be included.

References:

1. The Inter-State River Water Disputes Act, 1956
2. Narmada Bachao Andolan v. Union of India (2000) – Balanced developmental needs with environmental protection
3. I.A. No.95384 of 2019 in Original Suit No.1 of 2018 State of Tamil Nadu vs. State of Karnataka and Another
4. Report of the Cauvery Water Disputes Tribunal with the Decision, Volume V, Apportionment of the water of the Inter State River Cauvery, New Delhi 2007).
5. SLP / Review (2019) - In IA No.95384 / 2019 (related to inter-state river water)
6. State of Karnataka vs State of Andhra Pradesh & Ors (2000)
7. UN Convention on the Law of the Non-Navigational Uses of International Watercourses (1997)
8. United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm
9. United Nations Conference on Environment and Development, 3-14 June 1992, Rio de Janeiro
10. The Helsinki Rules on the Uses of the Waters of International Rivers Adopted by the International Law Association at the fifty-second conference, held at Helsinki in August 1966. Report of the Committee on the Uses of the Waters of International Rivers (London, International Law Association, 1967)
11. Berlin Rules on Water Resources, August 21, 2004, Berlin
12. The Trail Smelter Arbitration Case (United States vs Canada) 1941, U.N. Rep. Int'L Arb. AWARDS 1905 (1949)
13. Gabčíkovo–Nagymaros Project (Hungary/Slovakia, ICJ Rep1997)
14. Mara Tignino, AJIL Unbound, Volume 115, 2021, pp. 189 – 194
15. Leb, Christina & Wouters, Patricia. (2013). Water Security: Principles, Perspectives, and Practices. 26-46. 10.4324/9780203113202).
16. Singh, A. & Gosain, A. Principle of No Significant Harm (issue brief). The Hindu Centre for Politics and Public Policy
17. Richards and N. Singh, Inter-state water disputes in India: Institutions and policies, International Journal of Water Resources Development (2002) 18(4), 617, 611-625.
18. Sharad S Javali, Water Disputes over Inter - State Rivers: The Indian Experience, Christ University Law Journal, 4, 2 (2015), 159-195 ISSN 2278-4322|doi.org/10.12728/culj. 7.10
19. Venkatesan J., "Notify Cauvery final award before Feb. 20, SC tells Centre", The Hindu, Feb. 20, 2013.
20. Spijkers, O. (2020). The no significant harm principle and the human right to water. International Environmental Agreements: Politics, Law and Economics, 20(4), 699-712.
21. Sandrine Maljean-Dubois. The No-Harm Principle as the Foundation of International Climate Law. Debating Climate Law, Paru dans Debating Climate Law, Benoit Mayer and Alexander Zahar (ed.), Cambridge University Press, 2021, pp. 15-28.

22. Salatikoye DY (2019) Principle of International Water Law in Protection of Transboundary Watercourses: The Key Role of the Obligation Not to Cause Significant Harm. Arch Environ Sci Environ Toxicol 2: 111. DOI: 10.29011/AESET-111.100011
23. Sussane Schmeier, Joyeeta Gupta. The principle of no significant harm in international water law. Int Environ Agreements (2020) 20: 597-600
24. Harsh Vasani, International water law and hydropolitics: an enquiry into the water conflict between India and Nepal, Water International, 2023, Vol. 48, No.2, 259-281.
25. Srinivas Chokkakula, Disputes, (de)Politicization and Democracy: Interstate Water Disputes in India, Working Paper No. 108 RULNR Working Paper No. 13 January, 2012.
26. Nagheeby, Mohsen & Piri, Mehdi & Faure, Michael. (2019). The Legitimacy of Dam Development in International Watercourses: A Case Study of the Harirud River Basin. Transnational Environmental Law. 8. 1-32. 10.1017/S2047102519000128.
27. Joy, K. & Society, Soppecom & Bhagat, Sarita & Samuel, Abraham. (2024). Water Sharing and Protection: Inter-State Dimensions. The Oxford Handbook of Environmental and Natural Resources Law in India.
28. Reliance Natural Resources Ltd vs Reliance Industries Ltd on 7 May, 2010, AIRONLINE 2010 SC 285.
29. Gaurav Atreya, Erich Emery, Nathan Rogacki, Martin Buck, Reza Soltanian, Drew McAvoy, Patrick Ray; Estimating the influence of water control infrastructure on natural low flow in complex reservoir systems: A case study of the Ohio River, Journal of Hydrology: Regional Studies; Volume 54; 2024, 101897, ISSN 2214-5818.
30. Zawahri, Neda & Schmeier, Susanne & McCracken, Melissa. (2025). The effectiveness of joint basin institutions in managing international water disputes. Environment and Security. 3. 10.1177/ 27538796251347886.
31. Joyeeta Gupta, Jesse F. Abrams, David Armstrong McKay, Xuemei Bai, Kristi L. Ebi, Paola Fezzigna, Giuliana Gentile, Lauren Gifford, Syezlin Hasan, Lisa Jacobson, Aljoscha Karg, Steven Lade, Tim Lenton, Diana Liverman, Awaz Mohamed, Nebojsa Nakicenovic, David Obura, Johan Rockström, Ben Stewart-Koster, Detlef van Vuuren, Peter Verburg, Raimon C. Ylla-Català, Caroline Zimm. Thresholds of significant harm at global level: The journey of the Earth Commission, Earth System Governance, Volume 25, 2025, 100263, ISSN 2589-8116.