Downstream to Peace: RIVER 2.0, a Gated and Evidence-Graded Framework for Humanitarian De-escalation, Resource Cooperation and Sustainable Conflict Resolution in West Asia

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Abstract

Humanitarian relief, ceasefire diplomacy, reconstruction and accountability in West Asia are still mandated, financed and timed separately. This paper argues that the separation produces predictable failures and builds a framework, RIVER 2.0, around them. The design is qualitative and conceptual. A structured comparison of six 2024-2026 cases (Gaza, Lebanon, Yemen, Syria, the Gulf desalination episode of March-April 2026, and Jordan-Israel-Palestine water cooperation) is used to discipline a five-pillar architecture: Rights-based protection, Infrastructure resilience, Verified ceasefire-to-settlement transition, Equitable resource-sharing, and Reconciliation. Three departures from conventional practice are proposed. First, tracks run in parallel but credit and reconstruction finance are released only through gates tied to verifiable safeguards, while life-saving aid is never conditioned. Second, a Capture-Risk Screen turns hydro-hegemony theory into an ex ante test of whether resource cooperation is likely to build trust or entrench asymmetry. Third, the Humanitarian-to-Peace Transition Index is rebuilt on a non-compensatory, dual-cutoff logic so that gains in one dimension cannot mask collapse in another. Every empirical claim carries an evidence grade from A (documented) to D (proposed); official figures were checked against the issuing bodies as of 21 September 2026; and six propositions are stated together with the observations that would falsify them. A separate section distinguishes documented Indian capacities from proposed roles and treats the latter as policy propositions, not as established regional acceptance. The paper offers a testable design and a research agenda. It does not claim to have

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established the causal effects it proposes.

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Introduction

By 8 March 2026, ten days into the US-Israeli war on Iran, desalination plants in both Iran and Bahrain had been reported damaged. Iran accused the United States of striking a plant on Qeshm Island, and Bahrain accused Iranian drones of hitting one of its own. The accused parties denied responsibility, and later reports added incidents in Kuwait and the United Arab Emirates (Arab Center Washington DC, 2026; Matchett, 2026). I do not try to settle who did what. What matters for this paper is the structural fact those reports exposed. Kuwait and Bahrain draw around 90 per cent of their drinking water from desalination, and the six Gulf states between them operate about 3,400 plants (Matchett, 2026; CSIS, 2026). Civilian survival across much of the region rests on a small number of engineered nodes, and those nodes are now inside the war.

Elsewhere the numbers are as stark. The final Gaza Rapid Damage and Needs Assessment (RDNA) puts recovery and reconstruction needs at US$71.4 billion over ten years, of which US$26.3 billion falls in the first eighteen months (European Union & United Nations, 2026). Yemen's 2026 plan counts 22.3 million people in need, and by May only 12.7 per cent of the funding requested had been secured (OCHA, 2026a, 2026b). Syria's plan counts 15.6 million people in need but, for lack of funds, targets 8.6 million (OCHA, 2026c).

Ceasefires are not what is missing. Gaza's ceasefire took effect in October 2025. Lebanon had one from November 2024 until fighting resumed on 2 March 2026. The United States and Iran agreed a ceasefire in April 2026 and signed a memorandum in June; the memorandum collapsed within weeks and formally expired in August (Congressional Research Service, 2026a). What is missing is a working connection between a ceasefire and the things that would make it survivable: water and power that function, verification the parties can

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accept, a negotiation track with a date attached, and a financing stream that does not hang on one party's goodwill.

My argument is that this disconnection is built into how the international system organises its work. Relief runs on annual appeals, ceasefires on mediation cycles, reconstruction on damage assessments and donor conferences, and accountability on separate legal calendars. Each has its own clock, its own funders and its own definition of success. Gains in one domain are then left unprotected by the others, and a shock in any one of them travels through the rest.

The paper proposes RIVER 2.0, a five-pillar framework (Rights-based protection, Infrastructure resilience, Verified ceasefire-to-settlement transition, Equitable resource-sharing, Reconciliation), and makes three departures from standard practice. The first is *gated parallelism*: tracks run together, but credit and reconstruction finance are released against verifiable safeguards, and life-saving assistance is never conditioned. The second is a *Capture-Risk Screen*, which converts hydro-hegemony theory into a pre-agreement test of whether resource cooperation will build trust or entrench asymmetry. The third is a *non-compensatory Humanitarian-to-Peace Transition Index* (HPTI), in which a strong score in one dimension cannot hide a collapse in another. Two features of presentation serve the same end: every empirical claim carries an evidence grade from A to D (Section 2), and the propositions in Section 8 are stated with the observations that would refute them.

Three research questions guide the paper. **RQ1:** How do the separations between relief, ceasefire diplomacy, reconstruction and justice show up as identifiable failure modes in current West Asian cases? **RQ2:** Under what conditions does cooperation over water and energy build trust, and under what conditions does it entrench asymmetry? **RQ3:** How can a transition from humanitarian survival to durable peace be measured so that progress on some dimensions cannot conceal collapse on others? Section 2 sets out the method, Section 3 the theory, Section 4 the evidence base and Section 5 the cases. Sections 6 to 9 develop the framework, the index, the propositions and the

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financing logic. Section 10 examines Bharat's possible role, keeping what is documented apart from what is proposed. Section 11 states the limits.

Method and evidence protocol

Design

This is a qualitative conceptual study built around a structured, focused comparison of cases (George & Bennett, 2005). The comparison does two jobs. It disciplines the framework, by asking of each case what the framework predicts and whether the record bears that out, and it locates the points at which the framework is silent or wrong. It does not test causal hypotheses. Where the record is consistent with a proposition I say so; where an alternative explanation is at least as plausible, I say that too.

Identifying the evidence

Table 1 summarises the protocol for scholarly and institutional sources. Highlighted entries are figures the author must complete from the archived search log before submission.

Table 1. *Evidence identification and inclusion protocol*

Element	Protocol
Databases and window	Scopus, Web of Science Core Collection and Google Scholar. Empirical work from 2010 to September 2026; foundational theory without a lower bound.
Search strings (illustrative; final strings archived)	("water diplomacy" OR "environmental peacebuilding" OR "hydro-hegemony" OR "humanitarian-development-peace nexus" OR ceasefire AND (verification OR monitoring)) AND ("Middle East" OR "West Asia" OR Gaza OR Yemen OR Syria OR Lebanon OR Iraq OR Jordan)
Inclusion	Peer-reviewed; explicit empirical design (statistical, comparative, process-tracing or systematic review); bears on at least one of the five pillars; English.
Exclusion	Commentary without data; duplicate reports of one study; sources whose evidence cannot be traced to primary records.

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Element	Protocol
Screening record	Records identified [n]; after de-duplication [n]; screened on title and abstract [n]; assessed in full [n]; retained [n].
Institutional data	UN bodies (OCHA, UNSCO, Security Council documents, UN Treaty Collection), World Bank, WRI, ICRC. Figures were checked against the text published by the issuing body in September 2026 (Appendix B).
Grey literature	Think-tank and NGO analyses are used only to report events not available from primary sources, or as counter-positions. They are never the sole support for a Grade A claim.

Case selection

Cases were chosen against four criteria: (i) a ceasefire, truce or comparable arrangement in force at some point between November 2024 and September 2026, which gives variation in verification design; (ii) documented damage to, or targeting of, essential-service infrastructure; (iii) transboundary or cross-line dependence in water or energy; and (iv) availability of primary institutional data. Gaza, Lebanon and the Gulf and Iran episode meet all four. Yemen and Syria meet (ii) and (iv) and are included for the humanitarian-financing and transition evidence they provide. The Jordan-Israel-Palestine water arrangements fall outside criterion (i) but are the best-documented tests of resource cooperation under asymmetry. Iraq and the Tigris-Euphrates basin appear only at the level of legal status, because no ceasefire event falls in the window and I have not assembled comparable evidence. Comparisons beyond the region are reserved for the research agenda in Section 11.

Analytic procedure and evidence grades

For each case I (a) record which pillars were in place and which were missing; (b) state what a fragmentation account and a RIVER account each predict; (c) record the outcome as of 21 September 2026; (d) grade the evidence using Table 2; and (e) for resource-cooperation cases, back-cast the Capture-Risk Screen (Section 6.4). Coding was done by one author, so inter-coder reliability is unknown. Grades attach to claims, not to sources. A UN report can support a Grade A claim about the number of damaged housing units and only a Grade C claim about why the damage occurred.

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Table 2. *Evidence grades used throughout the paper*

Grade	Label	Meaning
A	Documented	Figure, event or legal text reported by a primary institutional source and checked against it as of 21 September 2026. "A (self-reported)" marks reports written by a party or administration describing its own conduct.
B	Supported	Finding from peer-reviewed empirical work with an explicit design. Relevance to West Asia needs its own argument.
C	Contested or context-bound	Plausible, with published evidence on more than one side, or dependent on conditions not established here.
D	Proposed	Framework proposition without a direct empirical test. Stated so that it can be tested (Section 8).

Theory used as tension pairs

Framework papers often present their theoretical sources as if they agreed with one another. Here each tradition is paired with the strongest published objection to it, and the framework is asked to survive both (Table 3).

Galtung (1969) separates negative peace, the absence of direct violence, from positive peace, the absence of structural violence. The distinction is the intellectual core of the paper's critique of ceasefire-only diplomacy. Its practical risk runs the other way: insisting on positive peace can be used to defer the immediate task of stopping the killing. RIVER 2.0 therefore treats a verified ceasefire as a pillar in its own right and asks for service-linked benchmarks alongside it, not in place of it.

Ostrom (1990) shows that shared resources can be governed without centralised coercion or privatisation, through nested institutions with monitoring, graduated sanctions and local participation. Her design principles presuppose appropriators of broadly comparable standing who can credibly monitor one another. In asymmetric basins that presupposition fails. The hydro-hegemony literature (Zeitoun & Warner, 2006) and Selby's (2013) study of the Israeli–Palestinian Joint Water Committee show how nominal cooperation can become domination. The framework keeps Ostrom's

institutional insight and adds an explicit test for the parity she assumes (Section 6.4).

Sen (1981) locates famine in the collapse of entitlements, not in aggregate scarcity. Reconstruction assessments, by contrast, are denominated in supply: dollars, housing units, megalitres. The framework therefore carries both the physical restoration and the legal and economic access that turns supply into entitlement.

The humanitarian-development-peace nexus, endorsed in the 2016 sustaining-peace resolutions (United Nations General Assembly, 2016; United Nations Security Council, 2016), and Lederach's (1997) multi-level view of reconciliation supply the case for simultaneity. The strongest empirical caution comes from Crost, Felter and Johnston (2014), who found in the Philippines that municipalities just eligible for a large development programme suffered more conflict casualties than those just ineligible, consistent with insurgents sabotaging a programme whose success would erode their support. Berman, Shapiro and Felter (2011), using Iraqi data, found instead that improved service provision reduced insurgent violence, especially for smaller projects. The two findings are compatible if project scale, visibility and security context matter, and Section 6.6 uses them that way.

Azar's (1978) concept of protracted social conflict, in which identity, unmet needs and institutional exclusion interact, is retained for the analysis of governance fragility. Finally, the environmental-peacebuilding literature offers a favourable base rate. Reviewing transboundary freshwater research, Bernauer and Böhmelt (2020) conclude that cooperation is the prevailing response, although non-violent conflict is frequent. Ide et al. (2021) urge caution in moving from that base rate to claims about peacebuilding effects. Both points are taken up in Section 6.4.

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Table 3. Theoretical sources, their strongest objections and the design response

Tradition	Contribution	Strongest objection	Design response in RIVER 2.0
Structural and positive peace (Galtung, 1969)	A truce that leaves civilians without water or livelihoods is not peace.	Can be used to postpone stopping direct violence.	Verified ceasefire is its own pillar; service benchmarks sit beside it.
Polycentric governance (Ostrom, 1990)	Shared resources can be self-governed through nested, monitored institutions.	Assumes rough parity; in asymmetric basins cooperation can be domination (Zeitoun & Warner, 2006; Selby, 2013).	Capture-Risk Screen tests for parity before cooperation counts as trust-building.
Entitlements (Sen, 1981)	Deprivation stems from lost access, not only from scarcity.	Reconstruction planning is still denominated in supply.	Access and legal entitlement are indicators and floors, not afterthoughts.
HDP nexus and multi-level reconciliation (UNGA, 2016; Lederach, 1997)	Relief, development and peace objectives must be pursued together.	Development projects can attract sabotage (Crost et al., 2014); benefits depend on scale (Berman et al., 2011).	Parallel activity but gated credit; small-scale bias and security allowance in budgets.
Environmental peacebuilding (Bernauer & Böhmelt, 2020; Ide et al., 2021)	Cooperation is the usual response to shared water.	Base rates do not establish peacebuilding effects, especially under occupation.	Cooperation is politically sequenced and treated as a proposition to test (P2).

The evidence base, September 2026

Table 4 lists the empirical anchors on which the paper relies. Each was checked against the issuing body's published text; URLs and dates are in Appendix B.

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Table 4. *Empirical anchors and their grades*

Anchor	Figure or event	Source	Grade
Gaza needs	US$71.4 bn over ten years, US$26.3 bn in the first eighteen months; physical damage US$35.2 bn; 371,888 housing units destroyed or damaged; over half of hospitals non-functional; about 1.9 million displaced.	EU & UN (2026)	A
Gaza aid under ceasefire	Aid distributed by UN agencies and partners up by more than 70 per cent on pre-ceasefire levels; nearly 300,000 tonnes delivered; basic food needs stabilised.	Board of Peace (2026)	A (self-reported)
Yemen	22.3 million in need; 18.3 million acutely food insecure; 5.2 million IDPs; 59.3 per cent of health facilities fully functional; plan of US$2.16 bn; 12.7 per cent funded by May.	OCHA (2026a, 2026b)	A
Syria	15.6 million in need; plan of US$2.9 bn targeting 8.6 million; about 5.5 million IDPs; worst drought-like conditions in 36 years.	OCHA (2026c)	A
Lebanon	About 1.24 million people in high acute food insecurity (IPC, 29 April 2026), driven by renewed conflict and displacement.	Security Council Report (2026b)	A
MENA water availability	480 m³ per person in 2023, under 10 per cent of the global average.	World Bank (2025)	A
MENA water stress	83 per cent of population exposed to extremely high water stress; model projection of 100 per cent by 2050.	WRI (2023)	A (baseline); B (projection)
Gulf desalination	About 3,401 operating plants in the six GCC states; Kuwait and Bahrain around 90 per cent dependent for drinking water.	CSIS (2026); Matchett (2026)	A

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Anchor	Figure or event	Source	Grade
Iran war chronology	Strikes from 28 February 2026; ceasefire agreed 7 April (announced by Pakistan 8 April); memorandum in June; collapse in July; formal expiry in August; limited exchanges continuing in September.	CRS (2026a, 2026b); House of Commons Library (2026)	A

Four features of this record shape what follows. Needs are large relative to financing: Yemen's plan was 12.7 per cent funded by May, Syria's plan targets fewer than six in ten of those in need, and Gaza's first-phase requirement is US$26.3 billion. Infrastructure is at once a need and a target, as the desalination reports show. Ceasefires recur but are fragile, and the Iran chronology is the plainest example. And the picture is moving: the Iran and Lebanon fronts were still active in September 2026, so every figure here is dated.

Six cases, read through the framework

Gaza, October 2025 onward: access improved, settlement architecture contested

A RIVER account predicts that a ceasefire linked to service restoration and a dated negotiation track will show gains in access, some verification, and movement toward a settlement. A fragmentation account predicts gains in access that nothing else protects. The record supports parts of both. Resolution 2803 (17 November 2025) endorsed the Comprehensive Plan to End the Gaza Conflict, welcomed a Board of Peace as a transitional administration, and authorised an International Stabilization Force that would assist in monitoring the ceasefire; it passed thirteen votes to none, with China and Russia abstaining (UN Meetings Coverage, 2025). The Board's first six-monthly report, covering 17 November 2025 to 14 May 2026, states that aid distributed by UN agencies and partners rose by more than 70 per cent over pre-ceasefire levels and that basic food needs had been stabilised for the first time since 2023 (Board of Peace, 2026). The report is written by the administration it describes and is

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read here as self-reported.

Against that, the EU and the UN said in April that neither the resolution nor the Comprehensive Plan can fully succeed without physical and institutional rebuilding and a clear pathway to Palestinian statehood (European Union & United Nations, 2026). A legal commentary asks whether the Security Council could properly create such a transitional authority (ASIL, 2026), and an Oxfam-MAS-PalTrade study argues that reconstruction will fail without Palestinian leadership (Oxfam International, 2026). In framework terms, Access and Infrastructure are partly present, Verification is present in form but its neutrality is contested, and the settlement trigger and inclusive-governance pillars are the weakest. What is disputed is who governs, which is the question a gate on Reconciliation and Governance is meant to put on the table.

Lebanon, 2024 to 2026: a pause without a trigger

The November 2024 Israel-Lebanon ceasefire was followed by continuing strikes. On 2 March 2026, shortly after the US-Israeli attack on Iran, Hezbollah fired on Israel, and Israel resumed operations at scale (Security Council Report, 2026a). A US-announced ten-day truce took effect on 16 April and was later extended (Meir Amit Intelligence and Terrorism Information Center, 2026). By late April, IPC analysis counted about 1.24 million people in high acute food insecurity, and UNIFIL had come under repeated attack (Security Council Report, 2026b). The 2024 arrangement had the features the framework treats as weak: a pause with no service-restoration component, no dated link to a settlement track, and no verification of the kind described in Table 7. That is consistent with Proposition P3. But the collapse was set off by a regional shock, and a single case cannot separate the effect of weak ceasefire design from the effect of that shock (Grade C).

The Gulf desalination episode, March to April 2026

The reports summarised in the Introduction give the facts as they stand: plants struck or reportedly struck in Iran, Bahrain, Kuwait and the UAE, attribution disputed, and reciprocal threats against civilian water and power infrastructure reported on more than one side (Arab Center Washington DC, 2026; Matchett,

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2026). Three observations follow. First, this is a record of *reported* incidents (Grade A for the reports; no grade is given to attribution). Second, the reciprocal threats are the dynamic a protected-nodes arrangement exists to interrupt. Third, the legal position is less settled than is often assumed. Article 54 of Additional Protocol I names drinking-water installations and supplies among the objects indispensable to civilian survival, but Israel, Iran and the United States are not parties to the Protocol, so the prohibition is relied on as customary law (Henckaerts & Doswald-Beck, 2005, Rule 54). Article 56 gives special protection only to dams, dykes and nuclear electrical generating stations, so desalination plants cannot borrow it. And in the April ceasefire no mutually agreed text was released (Congressional Research Service, 2026b), which places that ceasefire on the lowest rung of the verification ladder in Table 7.

Jordan, Israel and Palestine: two ways cooperation fails

Two arrangements are informative because they failed differently. The Joint Water Committee created under the 1995 Oslo II agreement was designed with equal Israeli and Palestinian representation. Selby (2013), working from the Committee's negotiation files, argues that it operated as a mechanism of domination, in that Palestinian approval was obtained for water infrastructure serving Israeli settlements as the price of progress on Palestinian projects (Grade B). The 2021 UAE-Israel-Jordan water-for-energy deal, Project Prosperity, would have exchanged 600 MW of Jordanian solar power for 200 million cubic metres of Israeli desalinated water a year, covering roughly half of Jordan's estimated annual deficit (Washington Institute for Near East Policy, 2024). Palestine was not a party (EcoPeace Middle East, 2025). Abu-Zreig and Hussein (2026), using process tracing, argue that the deal unravelled within two years amid the Gaza war and mounting public opposition in Jordan, and that its attempt to depoliticise a conflict-laden setting undermined its legitimacy (Grade B). The first case shows domination inside a cooperative form; the second shows technically sound cooperation that lacked legitimacy. Both are back-cast against the Capture-Risk Screen in Table 8.

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Syria and Yemen: contested causation and starved financing

In Syria the causal story about resource stress is itself contested. Gleick (2014) and Kelley et al. (2015) linked the drought of 2006-2010 and the rural displacement that followed to the conditions in which the uprising began. Selby et al. (2017) re-examined the evidence and argued that the case for a direct climate-to-conflict pathway is weaker than that account suggests (Grade C). RIVER 2.0 therefore treats resource stress as a risk multiplier and makes no causal claim about it. OCHA now reports Syria's worst drought-like conditions in 36 years alongside 15.6 million people in need and about 5.5 million internally displaced (OCHA, 2026c), and IOM counted more than 2.5 million returns since December 2024 as of October 2025 (IOM, 2025). Yemen shows the financing side of fragmentation. The 2026 plan requests US$2.16 billion, only 12.7 per cent had been secured by May, and the UN had already scaled back life-saving programmes in late 2025 (OCHA, 2026a, 2026b). In both countries the humanitarian appeal, the recovery agenda and the political process are run by different bodies on different timetables.

Table 5. *Case summary: what was in place, what was missing, and the design lesson*

Case	In place	Missing	Outcome by Sept 2026	Design lesson	Grade
Gaza 2025–26	Ceasefire; ISF and Board mandate; RDNA costing; aid up over 70% (self-reported)	Agreed settlement track; inclusive governance; reconstruction finance	Access gains; governance and sequencing contested	Gate credit on governance and trigger, not on access alone	A; C
Lebanon 2024–26	Ceasefire agreement; UNIFIL	Verification at L2 or above; service component; dated settlement link	Collapse on 2 March 2026 amid regional war; 1.24 m acutely food insecure	Weak ceasefire design is a risk factor but cannot be isolated from the regional shock	A; C

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Case	In place	Missing	Outcome by Sept 2026	Design lesson	Grade
Gulf and Iran 2026	Customary IHL; April ceasefire without agreed text	Nodes registry; non-targeting compact; verification	Reported strikes on desalination plants in four states; war continuing	Protected Civilian Nodes Registry; reciprocal non-targeting	A (reports); D (design)
Jordan, Israel, Palestine water	Joint Water Committee (1995); Prosperity DoI and MoU (2021–22)	Palestinian participation; binding dispute resolution; public legitimacy	JWC characterised as domination; Prosperity halted after Gaza war	Screen for capture risk before cooperation counts as trust-building	B
Syria and Yemen	Response plans; returns in Syria	Financing; link between recovery and political process	Yemen 12.7% funded by May; Syria targets 8.6 m of 15.6 m	Two-window finance (Section 6.6)	A

RIVER 2.0: a gated architecture

Parallel activity, gated credit

Lederach's (1997) argument for simultaneity is persuasive, but "everything at once" is not a plan and is hard to hold anyone to. RIVER 2.0 separates two things that much of the nexus literature runs together. *Activity is parallel*: relief, protection, verification, basin dialogue and reconciliation work start together and are financed together. *Credit is gated*: a pillar's output counts toward a transition claim, and the next tranche of reconstruction finance is released, only when a defined safeguard is verifiably in place (Table 6, final column). A gate is a minimum condition, not a reward.

Two rules keep the mechanism honest. The first is a *humanitarian firewall*: no gate applies to life-saving assistance, which continues under the principles of humanity, neutrality, impartiality and independence whatever the state of the gates. The second is *symmetry where the parties are symmetric*: a safeguard

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that binds only one side is a condition imposed, not a gate agreed.

Table 6. *The five pillars: legal anchor, mechanism, observed failure mode and gate*

Pillar	Legal anchor and its status	Mechanism	Failure mode in the cases	Gate
R: Rights-based protection	Geneva Conventions of 1949 (universal). Additional Protocol I binds only its parties; Israel, Iran and the US are not among them, and the prohibitions on starvation and on attacking objects indispensable to survival are treated as customary (ICRC Rules 53–54). UNSC Res. 2417 (2018) condemns starvation; it is normative, not self-executing.	Independent monitoring of attacks on protected persons and objects; negotiated access; published investigation timelines.	Access and protection gains reversed when ceasefires collapse or are contested; accountability tracks stay separate.	Monitors deployed with access rights; investigation timelines published.

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Pillar	Legal anchor and its status	Mechanism	Failure mode in the cases	Gate
I: Infrastructure resilience	AP I Art. 54 (drinking-water installations and supplies named). Art. 56 covers dams, dykes and nuclear generating stations only, so desalination plants rely on Art. 54 and the general rules of distinction and proportionality.	Protected Civilian Nodes Registry (6.2); modular, decentralised technology; small-scale bias and a security allowance (6.6).	No agreed non-targeting in the Gulf episode; listed sites still hit in Syria.	Registry lodged with a neutral custodian and acknowledged by all parties.
V: Verified ceasefire-to-settlement	UN Charter Chs. VI and VII; the ceasefire text. For Gaza, UNSC Res. 2803 (2025) authorises monitoring support and requires six-monthly reports.	Verification ladder (Table 7) with a dated negotiation trigger; service telemetry as a low-politics indicator of the civilian dividend.	No agreed text in the US–Iran April ceasefire; Lebanon 2024 a pause without trigger or services.	Verification at L2 or above; dated negotiation trigger.
E: Equitable resource-sharing	UN Watercourses Convention Arts. 5 and 7 (in force 2014; see 6.4 for regional parties). Equitable use and no significant harm have customary standing (ICJ, 1997, 2010). UNGA Res. 63/124 on transboundary aquifers (draft articles, not a treaty).	Capture-Risk Screen (Table 8); politically sequenced cooperation; shared data commons.	JWC: domination inside cooperation. Prosperity: exclusion and loss of legitimacy.	Screen passed: no zero on S2 or S3.

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Pillar	Legal anchor and its status	Mechanism	Failure mode in the cases	Gate
R: Reconciliation and inclusive governance	UNSC Res. 1325 (2000); sustaining-peace resolutions of 2016 (A/RES/70/262; S/RES/2282).	Standing (not advisory) seats for women, youth and civil society in at least one binding forum; community-verifiable local mechanisms; justice designed to avoid collective punishment.	Gaza: contest over who governs; reconstruction plans criticised for lacking local leadership.	At least one binding forum with standing civil-society seats.

A Protected Civilian Nodes Registry

Protection of water, health and power systems is cheap to promise and hard to operationalise. Humanitarian deconfliction lists exist, and their record is mixed. In north-west Syria a UN Board of Inquiry examined incidents in which facilities on the UN deconfliction list, or supported by the UN, were damaged or destroyed, and the Secretary-General reported that the parties had failed to meet their obligations under international law regarding such sites (United Nations Secretary-General, 2020; UN News, 2020). He also noted that the Board's recommendations raise complex issues, including which parties should be given deconfliction information at all. A registry for the wider region should learn from that.

I propose a Protected Civilian Nodes Registry with four design rules. (i) Coordinates and operating characteristics are lodged with a neutral technical custodian and released in tiers, so that the registry does not double as a target list. (ii) Every party to the conflict receives the same information at the same time, since selective sharing is what the Syrian experience most warns against. (iii) Nodes used in direct support of military action are excluded, consistent with Article 54(3) of Additional Protocol I, which even then forbids action expected to leave civilians with so little water that they starve or are forced to move. (iv) Every incident affecting a registered node triggers a published

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review within a fixed period. For states that share a coastline and depend on desalination, a reciprocal non-targeting compact is the natural extension. This is a Grade D proposal. Its evidential base is a record of failure, not of success.

Verification as a ladder

A ceasefire is a promise; verification is what turns it into information both sides can act on. Fortna (2004), studying the duration of peace after civil wars, found that the presence of international peacekeepers was associated with longer-lasting peace (Grade B; the setting is intrastate war and the finding is a controlled association, not an experiment). Table 7 sets out four rungs. The framework's requirement is modest: a ceasefire that is meant to open a negotiation track should sit at L2 or above, and the trigger, a dated commitment to begin talks on security, governance, territory and returns once verification is in place, should be written into the ceasefire text.

Two additions are new. First, *service telemetry*, meaning metered water supply, power uptime and clinic functionality reported from operating systems, is used to verify the civilian dividend. It is comparatively hard to dispute and does not require either party to accept the other's account of an incident. Second, the ladder allows partial credit: L1 is a legitimate starting point where access for observers cannot yet be agreed, provided the move to L2 is dated.

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Table 7. *The verification ladder*

Level	Description	Illustration from the record
L0	Declaratory: parties announce; no agreed text or monitor.	US–Iran, April 2026: ceasefire agreed but no mutually agreed text released (CRS, 2026b).
L1	Remote and open-source: satellite imagery, service telemetry and incident databases held by a neutral body.	Not documented as an agreed component of any current ceasefire in the sources reviewed; UN cluster data are the nearest analogue.
L2	Field observers with access rights (joint or third-party) and periodic public reports.	Gaza: the ISF is to assist the Board of Peace in monitoring, with six-monthly reports to the Council (UNSC Res. 2803). The monitor's neutrality is contested (ASIL, 2026).
L3	Independent mission with a mandate to attribute violations and refer them to a standing body.	Peacekeeping missions studied by Fortna (2004), in civil-war settings (Grade B).

Equitable resource-sharing: politically sequenced, not insulated

The intuition behind this pillar, that parties who will not yet negotiate territory may still negotiate an aquifer, has some support. Across international rivers, cooperation is the prevailing response (Bernauer & Böhmelt, 2020), and institutional design affects how basins cope with variability (De Stefano et al., 2012). Two lines of work qualify it sharply. Selby (2013) argues that the Israeli-Palestinian Joint Water Committee is better described as domination than cooperation. Abu-Zreig and Hussein (2026) argue that the UAE-Israel-Jordan deal failed in part because it tried to depoliticise a conflict-laden setting, and that durable cooperation in the Jordan basin needs progress on the underlying political issues. I accept both. The pillar therefore describes *politically sequenced* cooperation: resource arrangements move in step with the core issues, not in place of them, and are screened for capture risk before being counted as trust-building.

The legal footing is uneven and is stated plainly here. The 1997 Watercourses Convention entered into force in 2014. Among regional states, Iraq, Jordan,

Lebanon, Qatar and Syria are recorded as parties and Yemen as a signatory that has not ratified, while Israel, Türkiye and Iran are not parties (UN Treaty Collection; each entry to be re-confirmed against the current status page). The rules of equitable and reasonable utilisation and of preventing significant harm nonetheless carry customary weight, as the International Court of Justice's judgments in *Gabčíkovo-Nagymaros* (1997) and *Pulp Mills* (2010) indicate. Iraq acceded to the 1992 Helsinki Water Convention in 2023, the first Middle Eastern state to do so (Iraq Business News, 2023). For groundwater, including the coastal aquifer shared by Gaza, the relevant text is the 2008 set of UN draft articles on transboundary aquifers (United Nations General Assembly, 2008), which is not a treaty.

The Capture-Risk Screen (Table 8) converts the four safeguards that hydro-hegemony theory implies into a pre-agreement test. Each safeguard is scored 0 (absent), 1 (partial) or 2 (present); "n.d." marks a safeguard on which the sources reviewed give no information and which must be resolved before scoring. The decision rule is: proceed if no safeguard scores 0 and at least two score 2; proceed with a remedy plan if exactly one scores 0 and it is neither S2 nor S3; do not proceed as designed if S2 or S3 scores 0. The back-cast coding in Table 8 is mine, made from the published studies cited and not from the underlying files. It illustrates the instrument and is not a validated measurement.

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Table 8. *Capture-Risk Screen with an illustrative back-cast*

Safeguard	Test question	Joint Water Committee, 1995 onward (Selby, 2013)	Project Prosperity, 2021–23 (Abu-Zreig & Hussein, 2026)
S1 Verifiable data	Is hydrological or energy data shared continuously and checkable by a party that does not control it?	n.d.	n.d.
S2 Formal participation	Do all riparian and downstream communities hold decision rights, not only consultative ones?	1: equal representation on paper, veto in practice	0: Palestine excluded; Jordanian public opposition eroded legitimacy
S3 Binding dispute resolution	Is there a credible, binding mechanism rather than voluntary consultation?	0: approvals used as leverage; veto documented	n.d.
S4 Financing independence	Does financing avoid making the weaker party dependent on the stronger one's goodwill?	n.d.	1: third-party (UAE) finance, but Jordan would rely on Israel for about half its deficit
Result under the decision rule		Do not count as trust-building as designed (S3 = 0)	Do not proceed as designed (S2 = 0); redesign to include Palestine, as EcoPeace proposes

Reconciliation and inclusive governance

Women's participation is the most extensively studied element of this pillar. Krause, Krause and Bränfors (2018), combining a statistical analysis of peace agreements with case studies, find a robust correlation between agreements signed by women delegates and durable peace, and higher implementation rates for agreement provisions. They attribute the effect to links between women signatories and women's civil-society groups. The evidence is correlational and drawn mainly from civil-war settings, so I grade it B for the association and D for its transfer to West Asia. The design principle that follows is that seats for women, youth and civil society are standing and formal in at least one forum that takes binding decisions, and that local mechanisms

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(water-user associations, community-verified project ledgers) are built to work where central state capacity is partial. Justice mechanisms document violations, involve victims and identify the missing without becoming instruments of collective punishment.

Finance windows and project design

Reconstruction finance is organised in two windows. The *humanitarian floor* is unconditional and flows on need alone. The *reconstruction window* is released in tranches against two things: the relevant gates in Table 6 and verified service thresholds from the index in Section 7. Project design draws on the empirical literature. Berman et al. (2011) find that service provision reduces violence most for smaller projects, and Crost et al. (2014) find that large, visible programmes can attract sabotage. Budgets should therefore favour modular, community-scale systems such as solar-powered desalination, off-grid microgrids and community wastewater treatment, and should carry an explicit security allowance. A public ledger recording project location, cost, contractor and beneficiary data is the accountability instrument. Gaza's US$26.3 billion first-phase requirement is the reference figure for what such a window would have to hold (European Union & United Nations, 2026).

Six parallel tracks

- **Track 1, humanitarian pause and access.** Unimpeded, verified access for food, water, medicine and medical evacuation under negotiated arrangements and, where the parties agree, corridors consistent with international humanitarian law, including Common Article 3. No gate applies.
- **Track 2, verified ceasefire.** Monitoring at L2 or above, rapid investigation channels and a written trigger to political talks. Gate: V.
- **Track 3, essential-service stabilisation.** Priority restoration of water, power, health and sanitation with decentralised technology in the first eighteen months. Gate: I.
- **Track 4, structured political dialogue.** Security, governance, territory and returns, with women's and youth councils as standing participants. Gate: Reconciliation.

- **Track 5, conflict-sensitive reconstruction.** Tranche release and a public ledger (6.6). Gate: finance rules.
- **Track 6, regional resource and reconciliation architecture.** Basin authorities, transitional-justice mechanisms and regional economic integration. Gate: E (Capture-Risk Screen).

Measuring transition: a non-compensatory index

A weighted sum of normalised indicators is compensatory: a gain in one dimension offsets a loss in another at a fixed rate of exchange. For a transition index that is the wrong property. A district in which humanitarian access has fallen to zero should not be rescued by good employment figures. I therefore rebuild the HPTI on the counting approach of Alkire and Foster (2011), adapted from persons to territorial units.

Construction

Take territorial units (districts or governorates) indexed by u and six dimensions indexed by j: Protection (P), Access (A), Services (S), Displacement and Return (D), Economic Recovery (E) and Reconciliation (R). Each indicator is min–max normalised to [0,1]. Each dimension has a floor z_j. A unit is deprived in dimension j if its score is below the floor ($g_{uj} = 1$) and is not deprived otherwise ($g_{uj} = 0$). With weights w_j, its deprivation score is $c_u = \Sigma\, w_j\, g_{uj}$. A unit is classified as *transition-deficient* if either (i) it is deprived in any life-critical dimension (P, A or S), or (ii) $c_u \geq k$, where k is a cutoff on the overall score, provisionally 0.25. The headline measures are H, the share of the population living in transition-deficient units; Q, the mean deprivation score among those units; and $M = H \times Q$, the adjusted deficit. The additive index may be reported beside them for continuity, but it is not the headline.

The override in (i) reflects the fact that the three life-critical dimensions carry the conditions without which the others cannot be enjoyed; Sen's (1981) reading of deprivation as loss of access supports treating them as thresholds. Rule (ii) catches units that are moderately deprived across the less critical dimensions: with the provisional weights, two deprivations among D, E and R are enough.

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Provisional parameters

Weights are carried over from the earlier version of the index as a starting point (0.20, 0.20, 0.20, 0.15, 0.15, 0.10). Floors are left for Phase 2 of validation, with one anchor: for Services, the Sphere Handbook's minimum of 15 litres of water per person per day (Sphere Association, 2018). All other floors in Table 9 are placeholders to be set by expert panel, and the paper does not present them as findings.

Table 9. *HPTI dimensions, weights and floor status*

Dimension	Weight	Illustrative indicators	Floor status
Protection (P)	0.20	Verified civilian casualties; verified attacks on registered protected nodes; investigation of alleged violations	To be set (Phase 2). Life-critical.
Access (A)	0.20	Share of needs-based cargo delivered; access constraints; medical-evacuation approvals	To be set (Phase 2). Life-critical.
Services (S)	0.20	Litres of safe water per person per day; power uptime for health and water facilities; share of health facilities functioning	15 litres per person per day for water (Sphere, 2018); others to be set. Life-critical.
Displacement and Return (D)	0.15	IDPs with a durable solution; documented voluntary returns	To be set (Phase 2).
Economic Recovery (E)	0.15	Employment; household income against pre-conflict baseline; reconstruction disbursement	To be set (Phase 2).
Reconciliation (R)	0.10	Inter-community trust surveys; standing participation of women, youth and civil society; programme reach	To be set (Phase 2).

A worked example with synthetic data

Table 10 and Figure 1 use two invented districts to show why the construction matters. The values are synthetic and are not drawn from any real place. District B outscores District A on the additive index (0.72 against 0.63) although humanitarian access in B is zero. Under the counting rule, B is

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flagged and A is not, so the ranking reverses. A weighted geometric mean also penalises B, but it does so only through a mathematical property, while the floor rule states the normative judgement openly. The computation is reproduced in Appendix A.

Table 10. *Synthetic example: additive index against the counting rule (illustrative floors: P, A, S = 0.40; D, E, R = 0.30)*

District	Scores P, A, S, D, E, R	Additive index	Weighted geometric mean	Deprivations	Classification
A	0.70, 0.70, 0.60, 0.60, 0.60, 0.50	0.63	0.63	None	Not transition-deficient
B	0.90, 0.00, 0.90, 0.90, 0.90, 0.90	0.72	0.00	Access (life-critical), c = 0.20	Transition-deficient (override)

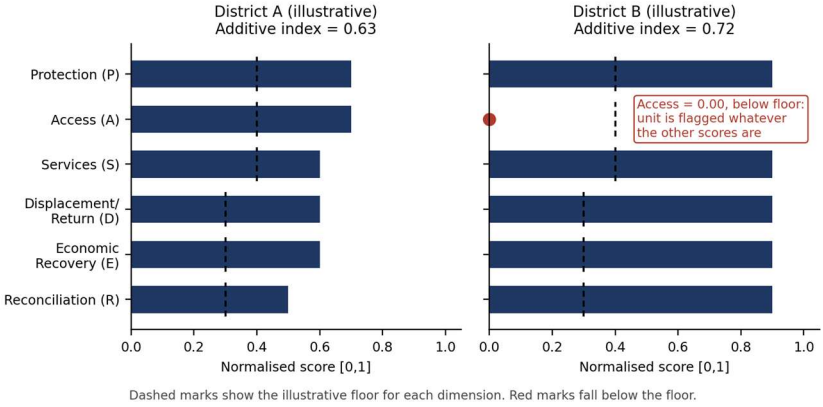


Figure 1. *Why an additive index can mislead. Two synthetic districts with the scores in Table 10. District B has the higher additive score but no humanitarian access.*

Validation pathway

The index is a proposal that needs validation, and the pathway has four phases. Phase 1: provisional weights and floors, as here. Phase 2: refinement through

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a structured Delphi panel or Analytic Hierarchy Process among humanitarian, legal and peacebuilding practitioners, with the floors set at this stage. Phase 3: sensitivity and rank-stability testing under perturbed weights and floors, followed by factor or principal-component analysis once longitudinal unit-level data exist. Phase 4: predictive validation, first by back-casting on documented ceasefires and then prospectively on units monitored from 2027, with the classification rules pre-registered before outcomes are known. The purpose is as normative as it is technical: a ceasefire should not be counted a policy success unless civilian life measurably improves.

Propositions and what would falsify them

The propositions below are Grade D. Each is stated with an observable implication and with the result that would count against it.

Table 11. *Testable propositions and falsification conditions*

ID	Proposition	Observable implication and data	Falsified if
P1	Registered, independently monitored protected nodes suffer fewer verified attacks than comparable unregistered nodes during ceasefire transitions.	Matched comparison by front-line distance and node type, using WHO attack-surveillance data on health care and OCHA incident logs.	Registered nodes are hit at the same or higher rates after matching.
P2	Water or energy cooperation arrangements that pass the Capture-Risk Screen are suspended or abandoned less often over five years than those that fail it.	Coded corpus of arrangements from the Transboundary Freshwater Dispute Database and regional case files; two independent coders.	Suspension rates are comparable, or higher for arrangements that passed.
P3	Ceasefires verified at L2 or above and carrying a dated negotiation trigger last longer than L0–L1 ceasefires, controlling for conflict type and guarantees.	Survival analysis on an existing ceasefire dataset extended to 2026.	No difference in survival.

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ID	Proposition	Observable implication and data	Falsified if
P4	Reconstruction that combines small-scale service projects, local employment and public ledgers is followed by lower violence and higher trust than large capital projects without them.	Project-level records linked to violence and survey data at district level.	No difference, or more violence after small-scale projects.
P5	The non-compensatory index identifies units that later relapse more accurately than the additive index.	Back-cast on historical ceasefires; prospective classification from 2027; compare accuracy.	The additive index performs at least as well.
P6	Peace arrangements with standing seats for women and civil society show higher implementation of service and governance provisions in West Asian cases than arrangements without.	Provision-level implementation coding, following Krause et al. (2018).	No difference in implementation.

Political economy, finance and information

Reconstruction is also a contest over who benefits. The scale of Gaza's needs, put by Oxfam and its Palestinian partners at about seven times the cost of all previous rebuilding there over two decades, is used in that study to argue that recovery should be treated as a matter of rights and reparations and should be led by Palestinians (Oxfam International, 2026). That position is a counterweight to donor-led designs and is the reason the framework places standing local participation in a gate and not in a preamble. The sabotage evidence (Crost et al., 2014) adds a second point: actors who expect to lose from successful service delivery have reason to disrupt it, which is why the security allowance in Section 6.6 is a design feature. The framework's finance windows are consistent with a "peace dividend" argument that money spent preventing renewed conflict should be counted against avoided humanitarian

cost and future reconstruction liability, but I hold that argument as Grade D and do not quantify it here.

Information integrity is treated as a cross-cutting requirement of the verification pillar, not as a separate pillar. Verification at L1 depends on open-source and satellite data, so rapid public reporting of service status in the languages of affected communities, protection of journalists and humanitarian communicators, and auditable use of AI-assisted imagery analysis belong to the verification design. The objective is to separate humanitarian information from propaganda without becoming censorship (Grade D).

Bharat: documented capacities and proposed roles

The review asked that what Bharat has done be kept apart from what it might do. Table 12 does that. "Documented" rows rest on published official or institutional records. "Proposed" rows are policy propositions of this paper, and their acceptability to regional actors is an open empirical question, not an established fact.

What the record documents is mainly consular and humanitarian. India has the largest expatriate presence in the Gulf: parliamentary data reported in 2026 put the diaspora in the six GCC states at about 9.7 million, out of 35.4 million overseas Indians (IMPRI, 2026). Between the outbreak of the Iran war and mid-April 2026, India's Ministry of External Affairs reported about 984,000 passengers returning from West Asia (Hellenic Shipping News, 2026), and more than 52,000 were evacuated from the Gulf in the first week of March alone (Takshashila Institution, 2026). Two Indian nationals were killed in a drone strike in Sohar, Oman, on 13 March 2026 (Takshashila Institution, 2026). In the June 2025 conflict, Operation Sindhu evacuated 4,415 nationals from Iran and Israel (IMPRI, 2026). None of the sources reviewed documents an Indian mediation role in the 2026 crises; they document consular action and public statements, including a welcome for the April ceasefire.

The proposed roles are ranked by the risk that regional parties would reject them. India's exposure cuts both ways. Its diaspora, remittances and energy imports give it strong reasons to want stability, and the same interests make

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strict neutrality hard to claim. The phrase *Vasudhaiva Kutumbakam*, which frames much official language on India's global role, states an orientation. It is not evidence of acceptance and is not used here to support any empirical claim.

Table 12. *Bharat: documented capacities and proposed roles*

#	Item	Status	Evidence or acceptability risk	Grade
1	Scale of diaspora exposure in the GCC (about 9.7 million)	Documented	Parliamentary data as reported (IMPRI, 2026). To be replaced by the primary Lok Sabha or Rajya Sabha answer.	A
2	Consular response to the 2026 war: about 984,000 returns to mid-April; more than 52,000 evacuated in the first week of March	Documented	MEA briefings as reported (Hellenic Shipping News, 2026; Takshashila Institution, 2026)	A
3	Operation Sindhu, June 2025: 4,415 evacuated from Iran and Israel	Documented	IMPRI (2026).	A
4	Disaster-relief deployment after the 2023 Türkiye–Syria earthquakes (Operation Dost)	Documented		A
5	Technical capacity-building in water, wastewater and decentralised energy, offered through existing cooperation programmes	Proposed	Lowest acceptability risk; indicator: requests from UN agencies or host governments for technical cooperation.	D
6	Technical support for a public reconstruction ledger, using India's digital public infrastructure experience	Proposed	Medium risk; depends on data-governance safeguards and on donor and host consent.	D
7	Convening Track 1.5 and Track 2 dialogue using diaspora and civil-society links	Proposed	Highest risk; India has documented interests in the outcome and no documented mediation role in the current crises.	D

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Limitations and research agenda

Several limits should be read alongside the argument.

- **No primary data.** The paper rests on institutional reports and published studies. Some reports are written by parties or administrations describing their own conduct (for example the Board of Peace report) and are graded accordingly.
- **Provisional parameters.** The index weights are carried over from an earlier version and the floors are largely unset. The synthetic example illustrates the logic; it is not a result.
- **Single coder.** The Capture-Risk Screen back-cast was coded by one author from secondary studies. Independent replication with archival files is needed before any claim of reliability.
- **Unsettled attribution.** The desalination incidents are contested, and the paper takes no position on responsibility.
- **A moving target.** Fighting in Iran and Lebanon continued in September 2026, and figures are dated to that month.
- **Humanitarian principles.** Nothing in the framework licenses conditioning life-saving assistance on political concessions, and the humanitarian firewall in Section 6.1 exists to prevent that reading.
- **Positionality.** The author is an India-based engineer and lawyer. The separation of documented and proposed roles in Section 10 is intended to limit the influence of that position on the analysis.

The research agenda has four parts: extending the Capture-Risk Screen to the Tigris–Euphrates, Orontes and Yarmouk basins; piloting a nodes registry with humanitarian actors and testing P1; convening the Delphi panel that Phase 2 of the index requires; and comparing West Asian cases with post-conflict settings elsewhere, including Northern Ireland, Bosnia and Herzegovina, Rwanda, Liberia, Sierra Leone, Colombia and Nepal.

Conclusion

The cases examined here do not show a shortage of ceasefires, appeals or

reconstruction plans. They show that these instruments are built and financed separately, so that gains in one are rarely protected by the others. RIVER 2.0 responds with a design that keeps the work parallel but makes credit conditional on safeguards that can be checked: a nodes registry, a verification ladder, a capture-risk screen, standing local participation and a non-compensatory index. Its claims are graded, its propositions can fail, and its treatment of Bharat's role is limited to what the record documents and what is offered for testing. The measure of any of this is modest and concrete: whether a household in Gaza, Sana'a, Damascus or Beirut has reliable water, a working clinic and a school to send children to, and whether those gains survive the next escalation.

Declarations

Originality and review status. This manuscript has not been published and is not under review elsewhere.

Conflict of interest. The author declares no conflict of interest in relation to the arguments presented.

Use of AI tools. AI tools were used for formatting the manuscript

Data availability. All figures come from the public documents listed in Appendix B. The worked example in Section 7.3 uses synthetic values, reproduced in Appendix A.

References

Abu-Zreig, M. M., & Hussein, H. (2026). The limits of depoliticized water–energy diplomacy: Insights from the UAE–Israel–Jordan water-for-energy deal. World Water Policy, 12(1). https://doi.org/10.1002/wwp2.70053

Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. Journal of Public Economics, 95(7–8), 476–487. https://doi.org/10.1016/j.jpubeco.2010.11.006

Arab Center Washington DC. (2026, April 30). War on Iran: The dangers of attacking water desalination plants in the Gulf. https://arabcenterdc.org/resource/war-on-iran-the-dangers-of-attacking-water-desalination-plants-in-the-gulf/

ASIL. (2026, March 12). The Security Council as architect? Resolution 2803, the Board of Peace, and

the limits of transition in Gaza. ASIL Insights, 29(16). https://www.asil.org/insights/volume/29/issue/16

Azar, E. E., Jureidini, P., & McLaurin, R. (1978). Protracted social conflict: Theory and practice in the Middle East. Journal of Palestine Studies, 8(1), 41–60. https://doi.org/10.2307/2536101

Berman, E., Shapiro, J. N., & Felter, J. H. (2011). Can hearts and minds be bought? The economics of counterinsurgency in Iraq. Journal of Political Economy, 119(4), 766–819. https://doi.org/10.1086/661983

Bernauer, T., & Böhmelt, T. (2020). International conflict and cooperation over freshwater resources. Nature Sustainability, 3(5), 350–356. https://doi.org/10.1038/s41893-020-0479-8

Board of Peace. (2026). Implementation of UN Security Council Resolution 2803 (2025): Report of the Board of Peace through the Office of the High Representative for Gaza (S/2026/418). United Nations. https://www.un.org/unispal/document/implementation-of-united-nations-security-council-resolution-2803-2025-report-of-the-board-of-peace-through-the-office-of-the-high-representative-for-gaza-s-2026-418/

Congressional Research Service. (2026a). U.S. conflict with Iran (R48887). https://www.congress.gov/crs-product/R48887

Congressional Research Service. (2026b, August 7). The Strait of Hormuz: Security developments and impacts on oil, gas, and other commodities (R45281). https://www.congress.gov/crs-product/R45281

Crost, B., Felter, J., & Johnston, P. (2014). Aid under fire: Development projects and civil conflict. American Economic Review, 104(6), 1833–1856. https://doi.org/10.1257/aer.104.6.1833

CSIS. (2026, May 7). Could Iran disrupt the Gulf countries' desalinated water supplies? Center for Strategic and International Studies. https://www.csis.org/analysis/could-iran-disrupt-gulf-countries-desalinated-water-supplies

De Stefano, L., Duncan, J., Dinar, S., Stahl, K., Strzepek, K. M., & Wolf, A. T. (2012). Climate change and the institutional resilience of international river basins. Journal of Peace Research, 49(1), 193–209.

EcoPeace Middle East. (2025). Concept note: Region-wide water-energy nexus (WEN). https://ecopeaceme.org/wp-content/uploads/2025/10/Concept-Note-Region-wide-water-energy-nexus-WEN.pdf

European Union & United Nations. (2026, April 20). Final Gaza Rapid Damage and Needs Assessment estimates $71.4 billion for recovery and reconstruction [Joint press release]. https://www.un.org/unispal/document/final-gaza-press-release-20apr26/

Fortna, V. P. (2004). Does peacekeeping keep peace? International intervention and the duration of peace after civil war. International Studies Quarterly, 48(2), 269–292.

Galtung, J. (1969). Violence, peace, and peace research. Journal of Peace Research, 6(3), 167–191. https://doi.org/10.1177/002234336900600301

George, A. L., & Bennett, A. (2005). Case studies and theory development in the social sciences. MIT Press.

Gleick, P. H. (2014). Water, drought, climate change, and conflict in Syria. Weather, Climate, and Society, 6(3), 331–340. https://doi.org/10.1175/WCAS-D-13-00059.1

Hellenic Shipping News. (2026, April 26). Indians forced to return home as Iran war rocks Gulf economy [Republished from Deutsche Welle]. https://www.hellenicshippingnews.com/indians-forced-to-return-home-as-iran-war-rocks-gulf-economy/

Henckaerts, J.-M., & Doswald-Beck, L. (Eds.). (2005). Customary international humanitarian law: Vol. 1. Rules. Cambridge University Press.

House of Commons Library. (2026, July 28). US–Iran ceasefire and nuclear talks in 2026 (CBP-10637). https://commonslibrary.parliament.uk/research-briefings/cbp-10637/

Ide, T., Bruch, C., Carius, A., Conca, K., Dabelko, G. D., Matthew, R., & Weinthal, E. (2021). The past and future(s) of environmental peacebuilding. International Affairs, 97(1), 1–16. https://doi.org/10.1093/ia/iiaa177

IMPRI. (2026, August 11). Evacuation planning for a volatile Gulf. https://www.impriindia.com/insights/policy-update/evacuation-planning-for-a-gulf/

International Court of Justice. (1997). Gabčíkovo–Nagymaros Project (Hungary/Slovakia), Judgment. I.C.J. Reports 1997, p. 7.

International Court of Justice. (2010). Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment. I.C.J. Reports 2010, p. 14.

IOM. (2025). Syrian Arab Republic crisis response plan 2026. International Organization for Migration, Global Crisis Response Platform. https://crisisresponse.iom.int/response/syrian-arab-republic-crisis-response-plan-2026

Iraq Business News. (2023, March 29). Iraq first country in ME to join UN Water Convention. https://www.iraq-businessnews.com/2023/03/29/iraq-first-country-in-me-to-join-un-water-convention/

Kelley, C. P., Mohtadi, S., Cane, M. A., Seager, R., & Kushnir, Y. (2015). Climate change in the Fertile Crescent and implications of the recent Syrian drought. Proceedings of the National Academy of Sciences, 112(11), 3241–3246.

Krause, J., Krause, W., & Bränfors, P. (2018). Women's participation in peace negotiations and the durability of peace. International Interactions, 44(6), 985–1016. https://doi.org/10.1080/03050629.2018.1492386

Lederach, J. P. (1997). Building peace: Sustainable reconciliation in divided societies. United States Institute of Peace Press.

Matchett, G. (2026, March 18). Attacks on desalination plants in the Iran war forecast a dark future. Atlantic Council. https://www.atlanticcouncil.org/dispatches/attacks-on-desalination-plants-in-the-iran-war-forecast-a-dark-future/

Meir Amit Intelligence and Terrorism Information Center. (2026, April 28). Spotlight on terrorism: Hezbollah and Lebanon (April 13–27, 2026). https://www.terrorism-info.org.il/en/spotlight-on-terrorism-hezbollah-and-lebanon-april-13-27-2026/

OCHA. (2026a, March 18). Yemen humanitarian needs and response plan 2026. United Nations Office for the Coordination of Humanitarian Affairs. https://www.unocha.org/publications/report/yemen/yemen-humanitarian-needs-and-response-plan-2026-march-2026

OCHA. (2026b, May 14). Yemen humanitarian update, April 2026. https://www.unocha.org/publications/report/yemen/yemen-humanitarian-update-april-2026

OCHA. (2026c). Syrian Arab Republic [Country page, accessed 21 September 2026]. https://www.unocha.org/syrian-arab-republic

OCHA. (2026d, April). Syrian Arab Republic: 2026 humanitarian needs and response plan. https://www.unocha.org/publications/report/syrian-arab-republic/syrian-arab-republic-2026-humanitarian-needs-and-response-plan-april-2026

Ostrom, E. (1990). Governing the commons: The evolution of institutions for collective action. Cambridge University Press.

Oxfam International. (2026, July 29). Gaza's $71bn reconstruction will cost seven times all previous rebuilds combined, and will fail without Palestinian leadership – Oxfam warns [Press release on Oxfam, MAS & PalTrade, Building Gaza anew]. https://www.oxfam.org/en/press-releases/gazas-71bn-reconstruction-will-cost-seven-times-all-previous-rebuilds-combined-and

Security Council Report. (2026a, March). Lebanon, March 2026 monthly forecast. https://www.securitycouncilreport.org/monthly-forecast/2026-03/lebanon-37.php

Security Council Report. (2026b, May 1). Lebanon, May 2026 monthly forecast. https://www.securitycouncilreport.org/monthly-forecast/2026-05/lebanon-38.php

Selby, J. (2013). Cooperation, domination and colonisation: The Israeli–Palestinian Joint Water Committee. Water Alternatives, 6(1), 1–24.

Selby, J., Dahi, O. S., Fröhlich, C., & Hulme, M. (2017). Climate change and the Syrian civil war revisited. Political Geography, 60, 232–244.

Sen, A. (1981). Poverty and famines: An essay on entitlement and deprivation. Oxford University Press.

Sphere Association. (2018). The Sphere handbook: Humanitarian charter and minimum standards in humanitarian response (4th ed.). Sphere Association.

Takshashila Institution. (2026, May 15). India's response to the West Asian war. https://takshashila.org.in/content/publications/Indias-Response-War-150526.html

UN Meetings Coverage. (2025, November 18). Security Council authorizes International Stabilization Force in Gaza, adopting Resolution 2803 (2025) (SC/16225). https://press.un.org/en/2025/sc16225.doc.htm

UN News. (2020, April 6). Syria: Warring parties failed to abide by international law over hospital attacks. https://news.un.org/en/story/2020/04/1061192

United Nations General Assembly. (2008). The law of transboundary aquifers (A/RES/63/124).

United Nations General Assembly. (2016). Review of the United Nations peacebuilding architecture (A/RES/70/262).

United Nations Secretary-General. (2020). Summary by the Secretary-General of the report of the United Nations Headquarters Board of Inquiry into certain incidents in northwest Syria since 17 September 2018 involving facilities on the United Nations deconfliction list and United Nations-supported facilities (S/2020/278). United Nations Security Council.

United Nations Security Council. (2000). Resolution 1325 (2000) on women, peace and security (S/RES/1325).

United Nations Security Council. (2016). Resolution 2282 (2016) (S/RES/2282).

United Nations Security Council. (2018). Resolution 2417 (2018) on the protection of civilians in armed conflict (S/RES/2417).

United Nations Security Council. (2025). Resolution 2803 (2025) (S/RES/2803).

United Nations Treaty Collection. Convention on the Law of the Non-navigational Uses of International Watercourses, New York, 21 May 1997 (UNTS vol. 2999, p. 77). Status page, Chapter XXVII-12.

Washington Institute for Near East Policy. (2024, January 31). The impact of the war in Gaza on Israel–Jordan cooperation. https://www.washingtoninstitute.org/policy-analysis/impact-war-gaza-israel-jordan-cooperation

World Bank. (2025). In MENA, make every drop of water count. World Bank Blogs. https://blogs.worldbank.org/en/voices/in-mena-make-every-drop-of-water-count

World Resources Institute. (2023, August 16). 25 countries, housing one-quarter of the population, face extremely high water stress. https://www.wri.org/insights/highest-water-stressed-countries

Zeitoun, M., & Warner, J. (2006). Hydro-hegemony: A framework for analysis of trans-boundary water conflicts. Water Policy, 8(5), 435–460. https://doi.org/10.2166/wp.2006.054

Appendix A. Computation for the synthetic example

Weights: P 0.20, A 0.20, S 0.20, D 0.15, E 0.15, R 0.10. Floors: P, A, S = 0.40; D, E, R = 0.30.

District A (0.70, 0.70, 0.60, 0.60, 0.60, 0.50). Additive: 0.20×0.70 + 0.20×0.70 + 0.20×0.60 + 0.15×0.60 + 0.15×0.60 + 0.10×0.50 = 0.14 + 0.14 + 0.12 + 0.09 + 0.09 + 0.05 = 0.63. Weighted geometric mean: $\exp(\Sigma\, w \ln X) \approx 0.627$. No score is below its floor, so $c_u = 0$ and the unit is not transition-deficient.

District B (0.90, 0.00, 0.90, 0.90, 0.90, 0.90). Additive: 0.18 + 0.00 + 0.18 + 0.135 + 0.135 + 0.09 = 0.72. Weighted geometric mean = 0 because $X_A = 0$. Access (0.00) is below the floor of 0.40, so $c_u = 0.20$; because Access is life-critical, the override applies and the unit is transition-deficient whatever the other scores.

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