

QA report

Caribbean coastal resilience programme

Independent QA report · separate-vendor judge · the run's own report, edited for publication.

QA VERDICT

Passed · 14 flags

No issues raised at either review. 3 warnings and 11 information flags, each recorded below. The results were cleared for hand-over.

Mid-run review passed · 11 flags

Final review passed · 3 flags

Each assessment runs through an eight-step process with gates that a person must clear. Independent quality assurance runs at two of those points: at the mid-run review, once the scenarios are set, and at the final review, before the results are handed over. Each review records its checks and every flag it raised.

Mid-run review, once the scenarios are set

Process followed

The 8-step gated process is clearly visible in the observation log. The orchestrator drafted and committed the case framing (seq 1-2), and the research agent retrieved skills and proposed parameters (seq 3-9) before committing the verified set (seq 10-11). The orchestrator's initial attempt to submit the narration (seq 13) was correctly blocked by the harness for containing an unverified currency figure ('\$54'), which was subsequently corrected in a successful submission (seq 14). The scenario agent then proposed and committed the scenario set (seq 16-18), followed by the final assessment runs (seq 19-25). The adjustment interpretation (seq 15) was a demonstration only, as designed.

[tier 1 ran: log integrity, gate sequence, refusals and errors visible, provenance integrity, budget within ceilings, mandated engine flags[declining rate horizon, qualitative never numeric], induced channel parity, scenario axes and calendar, policy flags, licence note per cited source]

Sense checks on the numbers

Checked the magnitudes, signs, and units of the computed values against the cited sources. The value in force for sea surge risk reduction pct (0.22) is a reasonable point within the source's 0.15-0.30 range. The per visit surplus (66 USD/visit) correctly reflects the midpoint of the CPI-adjusted 2025 values (54-78 USD). The construction wage used the pack's 15556 USD/year (Saint Lucia) rather than the proposed 12229 USD/year (Jamaica), both of which are valid extracts from the ILO source, with the higher value serving as a slightly better proxy for skilled construction labor. Market expressions (e.g., destination revenue, multiplied income) were correctly excluded from the primary NPV sums.

Sources & provenance

Claims trace accurately to the provided source registry entries. The rationales are honest about the limitations of the evidence base, explicitly noting where proxies were used (e.g., applying coastal-flood EAD growth to erosion) and where benefit transfers were weak (e.g., the Roper 2025 insurance pass-through factor). The extraction of values, such as the 1.75 income multiplier from Pratt 2015 and the 13.8 FTE coefficient from Moszoro 2021, perfectly matches the cited text.

SAMPLE

Evidence lineage

- 1.3a[sea surge].sea surge risk reduction pct = 0.22 fraction (VALUE IN FORCE — the case pack's); the research agent's re-check proposed 0.225, not adopted ← derived from tnc narayan 2025:sea surge risk reduction pct [grounded at log seq 3]
- 1.3a[sea surge].sea surge damage growth multiple @baseline = 1.40 ratio ← worldbank slr ead caribbean (Reguero et al. (PLOS One 2015), "Effects of Climate Change on Exposure to Coasta; 2015 (PLOS); 2021 (World Bank); projections to 2100) [grounded at log seq 3]
- 1.3a[sea surge].sea surge damage growth multiple @mid = 1.80 ratio ← worldbank slr ead caribbean (Reguero et al. (PLOS One 2015), "Effects of Climate Change on Exposure to Coasta; 2015 (PLOS); 2021 (World Bank); projections to 2100) [grounded at log seq 3]
- 1.3a[sea surge].sea surge damage growth multiple @high = 2.45 ratio ← worldbank slr ead caribbean (Reguero et al. (PLOS One 2015), "Effects of Climate Change on Exposure to Coasta; 2015 (PLOS); 2021 (World Bank); projections to 2100) [grounded at log seq 3]
- 1.3a[coastal erosion].coastal erosion risk reduction pct = 0.10 fraction ← derived from usgs ucsc usvi:erosion risk reduction pct [grounded at log seq 4]
- 1.3a[coastal erosion].coastal erosion damage growth multiple @baseline = 1.40 ratio ← worldbank slr ead caribbean (Reguero et al. (PLOS One 2015), "Effects of Climate Change on Exposure to Coasta; 2015 (PLOS); 2021 (World Bank); projections to 2100) [grounded at log seq 4]
- 1.3a[coastal erosion].coastal erosion damage growth multiple @mid = 1.80 ratio ← worldbank slr ead caribbean (Reguero et al. (PLOS One 2015), "Effects of Climate Change on Exposure to Coasta; 2015 (PLOS); 2021 (World Bank); projections to 2100) [grounded at log seq 4]
- 1.3a[coastal erosion].coastal erosion damage growth multiple @high = 2.45 ratio ← worldbank slr ead caribbean (Reguero et al. (PLOS One 2015), "Effects of Climate Change on Exposure to Coasta; 2015 (PLOS); 2021 (World Bank); projections to 2100) [grounded at log seq 4]
- 1.2a.per visit surplus = 66 USD/visit ← derived from schuhmann 2016 barbados:per visit surplus 2025 [grounded at log seq 5]
- 1.2a.beach visitor decline endpoint @mid = 0.38 fraction ← spencer 2022 beach tourism (Spencer, N., Strobl, E. & Campbell, A. (2022), Sea level rise under climate chan; 2022; endpoints dated 2100) [grounded at log seq 5]
- 1.2a.endpoint revenue loss pct @mid = 0.38 fraction ← spencer 2022 beach tourism (Spencer, N., Strobl, E. & Campbell, A. (2022), Sea level rise under climate chan; 2022; endpoints dated 2100) [grounded at log seq 5]
- 1.2a.beach visitor decline endpoint @high = 0.47 fraction ← spencer 2022 beach tourism (Spencer, N., Strobl, E. & Campbell, A. (2022), Sea level rise under climate chan; 2022; endpoints dated 2100) [grounded at log seq 5]
- 1.2a.endpoint revenue loss pct @high = 0.47 fraction ← spencer 2022 beach tourism (Spencer, N., Strobl, E. & Campbell, A. (2022), Sea level rise under climate chan; 2022; endpoints dated 2100) [grounded at log seq 5]
- 1.1a.operational wage = 9783 USD/FTE/year ← derived from ilo ilostat caribbean wages:jamaica economy wide wage, ilo ilostat caribbean wages:hct wage discount [grounded at log seq 6]
- 1.1a.income multiplier = 1.75 ratio ← pratt 2015 sids multiplier (Pratt, S. (2015), input-output analysis of 7 SIDS — accommodation/ restaurants i; 2015 (Pratt); 1994 (Wanhill)) [grounded at log seq 6]
- 1.1a.fte per million usd = 13.8 FTE-years/USD million ← derived from moszoro 2021 construction fte:construction fte per million usd [grounded at log seq 6]
- 1.1a.construction wage = 15556 USD/FTE/year (VALUE IN FORCE — the case pack's); the research agent's re-check proposed 12229, not adopted ← ilo ilostat caribbean wages (ILO ILOSTAT country profiles + national statistical offices — Caribbean economy-; 2023–2024) [grounded at log seq 6]
- 1.1a.decline endpoint pct @mid = 0.38 fraction ← spencer 2022 beach tourism (Spencer, N., Strobl, E. & Campbell, A. (2022), Sea level rise under climate chan; 2022; endpoints dated 2100) [grounded at log seq 6]
- 1.1a.decline endpoint pct @high = 0.47 fraction ← spencer 2022 beach tourism (Spencer, N., Strobl, E. & Campbell, A. (2022), Sea level rise under climate chan; 2022; endpoints dated 2100) [grounded at log seq 6]
- 1.1b.second dividend ratio = 1.0 ratio ← wri adapttr 2025 (WRI Adaptation Triple Dividend (AdapTDR) 2025 — portfolio analysis of 320 adapta; 2025) [grounded at log seq 7]
- 1.1b.premium friction factor = 0.70 fraction ← roper 2025 (Roper (2025), indicative coastal-resilience insurance-premium reduction (60% los; 2024–2025) [grounded at log seq 7]

Advisory flag · info · harness refusals visible

1 action(s) blocked by the harness and corrected in-run: seq 13 orchestrator/submit narration — the audit trail shows the enforcement working

Advisory flag · info · case facts

13 case fact(s) in the parameterisation — disclosed at framing

Advisory flag · info · messy data note

visitor days: no direct beach-visitor-day count exists — built up from reported stopover arrivals × an estimated beach-visit-days conversion + cruise day-trippers (how it actually has to be derived).

Advisory flag · info · messy data note

baseline tourism jobs: the reported figure is 'direct' tourism employment, but islands routinely quote the broader direct+indirect contribution — a definition mismatch to watch.

Advisory flag · info · messy data note

annual tourism revenue: only direct tourism GDP (value-added) is cleanly published — used as a conservative proxy for gross revenue at risk (gross visitor spend is higher).

Advisory flag · info · messy data note

insurance premium: the island coastal premium is commercially confidential; grounded off the CCRIF/AAL scale with low insurance penetration — an apportioned estimate.

Advisory flag · info · messy data note

construction wage: economy-wide proxy (sector-specific construction wage not published) — understates the skilled rate, flagged.

Advisory flag · info · messy data note

erosion valuation-objective match is Low (chronic-erosion evidence less mature) → the erosion avoided-damage line reads Indicative.

Advisory flag · warning · indicative material component

[judge/methodology compliance] Material components 1.1b (Induced economic effects) and the coastal erosion sub-component of 1.3a carry Indicative confidence due to reliance on portfolio averages and weak valuation-objective matches. This meets the policy threshold for a mandated flag on material components. (evidence: scenario baseline planned, components 1.1b and 1.3a[coastal erosion])

Advisory flag · warning · weak benefit transfer

[judge/proposal sensibility] The premium friction factor (0.70) relies on an indicative industry example (Roper 2025) rather than a matched empirical study, resulting in a weak benefit transfer (Low on socioeconomic, biophysical, and scale dimensions). It is appropriately restricted to the supplementary insurance channel. (evidence: parameterisation review target 1.1b.premium friction factor)

Advisory flag · info · proxy data mismatch

[judge/proposal sensibility] Coastal-flood expected annual damage (EAD) growth multiples were used as a proxy for coastal erosion damage growth across all climate pathways, as erosion-specific pathway data was unavailable. The agent correctly identified and documented this mismatch. (evidence: parameterisation review targets 1.3a[coastal erosion].coastal erosion damage growth multiple)

Final review, before the results are handed over

Process followed

Process evidence is out of scope at this touchpoint by design; the observation log and gate sequence were validated at Step 5 and by the deterministic tier. The bundle deliberately carries only the artifacts and the computed record.

[tier 1 ran: artifacts valid as written, post step5 refusals and errors visible, narrative text clean, limitations caveat present, disclosed limitations verbatim, currency faithfulness post hoc, package matches assessment full, summary card md matches json, case binding, licence note per cited source]

Sense checks on the numbers

Checked all prose figures in the stakeholder output and summary card against the computed record. Verified baseline planned public value total (\$138.70M), cost (\$39.83M), net public value (\$98.87M), and BCR (3.48). Verified the scenario trajectory figures for mid (\$150.34M) and high (\$169.30M) pathways, and partial (\$86.39M) and ambitious (\$195.85M) interventions. Checked the parameterisation review references in the summary card (sea-surge effectiveness 0.22 vs 0.225, construction wage \$15,556 vs \$12,229). All magnitudes, signs, and comparative claims are accurate and internally consistent.

Sources & provenance

The written outputs accurately reflect the provenance and confidence limitations established in the parameterisation review, explicitly noting the Indicative confidence of erosion-related lines, the induced 'second dividend', and the insurance premium pass-through, as well as the specific data proxies used (e.g., flood-EAD proxy for erosion, economy-wide wage proxy).

Evidence lineage

Step 8 lineage: artifacts on disk → validated contracts → figures cross-checked against the run's computed record.

Advisory flag · warning · post step5 harness refusals

1 action(s) blocked by the harness after the mid-run review (write-up, assembly, packaging) and corrected in-run: seq 27 orchestrator/submit narration — enforcement working, reported here because no earlier touchpoint could see it

Advisory flag · info · limitations caveat present

limitations caveat present in the stakeholder output (1503 chars) — check passed

Advisory flag · info · disclosed limitations verbatim

all 6 disclosed case-data limitation(s) carried verbatim in the stakeholder output (engine-filled)