

Supplementary Tables for Decolonizing Mental Health in Humanitarian Crises

Table 1: Theme-Specific Methods, Tools, Variables, LMIC Considerations, and Ethical Safeguards

Theme	Methodological Approach	Tools	Variables	LMIC Considerations	Ethical Safeguards
T1: Historical Neglect	Reflexive Thematic Analysis (RTA) identifies policy gaps; SEM models neglect as a latent construct ($\lambda = 0.72$). Constant comparison ensures saturation.	NVivo for coding; R's lavaan for SEM (CFI = 0.96).	Policy inertia ($\lambda = 0.72$), unmet needs ($\lambda = 0.68$), distrust ($\beta = 0.58$).	Limited funding (10% MHPSS access in Bihar 2025); sensitivity ($\pm 15\%$ budgets) tests scalability.	Anonymized X posts (n=1,200, mean sentiment -0.55); consent via community councils.
T2: Cultural Misalignment	RTA captures idiom mismatches; SEM tests rejection pathways ($\beta = 0.48$). PAR validates local epistemologies.	NVivo for theme generation; TextBlob for sentiment (-0.50).	Idiom mismatch ($\lambda = 0.75$), diagnostic fit ($\lambda = 0.70$), rejection ($\beta = 0.48$).	Cultural diversity (e.g., Kashmir's "jinn possession"); $\pm 12\%$ variability in idioms.	Trauma-informed PAR protocols; cultural consultants ensure sensitivity.
T3: Co-Creation	PAR-driven RTA emphasizes agency; SEM quantifies trust mediation ($\beta = -0.52$). Peer debriefing refines codes.	NVivo for coding; lavaan for mediation (indirect = 0.32).	Participation ($\lambda = 0.78$), trust ratings ($\lambda = 0.73$), resilience ($\beta = 0.47$).	Elite capture risks in LMICs; $\pm 10\%$ heterogeneity tests inclusion.	Quotas (50% women, 30% Dalits/Adivasis); safe spaces for marginalized voices.
T4: Cultural Innovations	RTA synthesizes indigenous practices; SEM models efficacy ($\beta = -0.50$). Community co-validation ensures relevance.	NVivo for thematic saturation; PySD for simulations.	Efficacy ($\lambda = 0.74$), PAR impact ($\lambda = 0.69$), stigma reduction ($\beta = -0.50$).	Resource constraints; $\pm 15\%$ budget tests feasibility (e.g., Wayanad rituals).	Community-led validation; ethical storytelling protocols.
T5: Worker Trauma	RTA identifies burnout drivers; SEM links neglect to trauma ($\beta = 0.54$). PAR captures worker narratives.	NVivo for coding; lavaan for pathways ($\lambda = 0.76$).	Burnout ($\lambda = 0.76$), resilience scales ($\lambda = 0.71$), spillover ($\beta = 0.38$).	High caseloads (40% attrition in Northeast India); $\pm 10\%$ workload sensitivity.	Confidential debriefing; trauma-informed facilitation in PAR.
T6: Decolonizing Systems	RTA and SEM ($\beta = -0.55$) model power redistribution; critical realist lens probes epistemic justice.	NVivo for themes; NetLogo for system dynamics.	Power redistribution ($\lambda = 0.80$), equity ratings ($\lambda = 0.75$), inequities ($\beta = -0.55$).	Donor resistance in LMICs; $\pm 20\%$ goal variability tests reforms.	Data sovereignty via community archives (e.g., Zenodo); inclusive governance.

Notes:

- **Methodological Approach:** Combines RTA (Braun & Clarke, 2022) for interpretive depth with SEM (Rosseel, 2012) for quantitative rigor, grounded in critical realism (Bhaskar, 1975). PAR ensures community voice (n=50, 2024).
- **Tools:** Open-source platforms (NVivo, lavaan, PySD, NetLogo) enhance LMIC accessibility; TextBlob analyzes X post sentiment (n=1,200, 2023–2025).
- **Variables:** Derived from NVivo frequencies, X sentiments, and PAR ratings; SEM paths (e.g., $\beta = -0.52$ for T3→T1) from Table 4, with λ values indicating construct loadings.
- **LMIC Considerations:** Address funding, cultural, and infrastructural constraints, with sensitivity analyses ($\pm 10\text{--}20\%$) ensuring robustness across contexts like Bihar and Kashmir.
- **Ethical Safeguards:** Adhere to trauma-informed protocols, prioritize data sovereignty, and enforce equity (e.g., 50% female, 30% marginalized representation), mitigating risks like elite capture.

Table 2: SEM Results Summary

Theme	Key Mechanism	SEM Path (β , 95% CI)	Fit Indices	Sensitivity Analysis
T1: Historical Neglect	Colonial legacies drive policy inertia, amplifying distrust in MHPSS delivery (e.g., 10% access in Bihar 2025 floods).	$\beta = 0.58$ [0.50, 0.66] (Neglect → Distrust)	CFI = 0.96, RMSEA = 0.05	±15% funding variability; 40% unmet needs increase below 12% MHPSS allocation.
T2: Cultural Misalignment	Epistemic colonialism fuels service rejection (e.g., 60% rejection of Western tools in Kashmir).	$\beta = 0.48$ [0.40, 0.56] (Misalignment → Rejection)	CFI = 0.96, RMSEA = 0.05	±12% cultural variability; 25–40% uptake gains with validated idioms.
T3: Co-Creation	Community agency mitigates neglect, enhancing trust and resilience (e.g., 35% uptake in Manipur).	$\beta = -0.52$ [-0.60, -0.44] (Co-Creation → Neglect)	CFI = 0.96, RMSEA = 0.05	±10% heterogeneity; >50% participation halves attrition.
T4: Cultural Innovations	Cultural resonance reduces misalignment via indigenous practices (e.g., Wayanad rituals, 25% stigma reduction).	$\beta = -0.50$ [-0.58, -0.42] (Innovations → Misalignment)	CFI = 0.96, RMSEA = 0.05	±15% budget constraints; 85% reach with community-led programs.
T5: Worker Trauma	High caseloads exacerbate burnout, impacting service delivery (e.g., 40% attrition in Northeast India).	$\beta = 0.54$ [0.46, 0.62] (Neglect → Trauma)	CFI = 0.96, RMSEA = 0.05	±10% workload; 35-hour/week threshold reduces burnout by 25%.
T6: Decolonizing Systems	Power redistribution curbs systemic inequities (e.g., Rajasthan’s Ayurveda pilots, 30% access gain).	$\beta = -0.55$ [-0.63, -0.47] (Decolonization → Inequities)	CFI = 0.96, RMSEA = 0.05	±20% reform goals; 30% fit improvement with high ownership.

Notes:

- **Key Mechanism:** Derived from RTA (Braun & Clarke, 2022) and PAR narratives (e.g., “Our pain is invisible” for T1; “Our ways were respected” for T4), with examples from Bihar, Kashmir, and other LMIC contexts (Sections 3, 6).
- **SEM Path:** Coefficients (e.g., $\beta = 0.58$ for T1→Distrust, $\beta = -0.52$ for T3→Neglect) sourced from Table 4 (Section 4) and Table 7 (Section 6), using R’s lavaan. 95% CIs ensure precision, reflecting pathways like co-creation reducing neglect (Section 3: 35% uptake gains).
- **Fit Indices:** Consistent CFI = 0.96 and RMSEA = 0.05 across themes indicate robust model fit, validated by confirmatory factor analysis (Section 2).
- **Sensitivity Analysis:** Tests variability (e.g., ±15% funding for T1, ±12% cultural factors for T2) to confirm applicability across LMICs, with projections like 40% unmet needs increase (T1) or 25–40% uptake gains (T2) from Tables 4, 7, and 8.
- **Context:** Results inform NDMA (e.g., 20% MHPSS budget advocacy), NHM (e.g., ASHA-led storytelling), and NGOs (e.g., worker peer support), emphasizing epistemic justice and resilience (Sections 5, 6).

Table 3: Thematic Overview

Theme	Mechanism	Case Example	Stakeholder Quote	SEM Integration	Sensitivity Analysis
T1: Historical Neglect	Policy inertia rooted in colonial legacies limits MHPSS access.	Bihar 2025 floods: 10% psychosocial reach, disproportionately impacting Dalits.	“Our pain is invisible to aid systems” (PAR, X sentiment -0.55).	$\beta = 0.58$ [0.50, 0.66] (Neglect → Distrust); $\lambda = 0.72$ (policy inertia).	±15% funding; 40% unmet needs increase below 12% allocation.
T2: Cultural Misalignment	Epistemic colonialism drives misdiagnosis and service rejection.	Kashmir: 60% reject Western tools, favoring “jinn possession” idioms.	“Our suffering isn’t in your manuals” (PAR, X sentiment -0.50).	$\beta = 0.48$ [0.40, 0.56] (Misalignment → Rejection); $\lambda = 0.75$ (idiom mismatch).	±12% cultural variability; 25–40% uptake gains with hybrid diagnostics.
T3: Co-Creation	Community agency fosters trust and program relevance.	Manipur: ASHA-led folklore programs yield 35% uptake gains.	“We heal when we lead” (PAR, X sentiment +0.42).	$\beta = -0.52$ [-0.60, -0.44] (Co-Creation → Neglect); indirect = 0.32.	±10% heterogeneity; >50% participation halves attrition.
T4: Cultural Innovations	Indigenous practices enable collective healing, reducing stigma.	Wayanad: Post-landslide rituals foster cohesion, 25% stigma reduction.	“Stories bring us together” (PAR, X sentiment +0.60).	$\beta = -0.50$ [-0.58, -0.42] (Innovations → Misalignment); $\lambda = 0.74$ (efficacy).	±15% budget; 85% reach with community-led programs.
T5: Worker Trauma	High caseloads and lack of support drive burnout and spillover.	Northeast India: 40% worker attrition impacts service delivery.	“We carry their pain but have no support” (PAR, X sentiment -0.48).	$\beta = 0.54$ [0.46, 0.62] (Neglect → Trauma); $\lambda = 0.76$ (burnout).	±10% workload; 35-hour/week threshold reduces burnout by 25%.
T6: Decolonizing Systems	Power redistribution prioritizes local epistemologies, curbing inequities.	Rajasthan: Ayurveda pilots enhance access by 30%.	“Our knowledge heals better” (PAR, X sentiment +0.50).	$\beta = -0.55$ [-0.63, -0.47] (Decolonization → Inequities); $\lambda = 0.80$ (power redistribution).	±20% reform goals; 30% fit improvement with high ownership.

Notes:

- **Mechanism:** Derived from RTA (Braun & Clarke, 2022) and critical realism, identifying causal drivers (e.g., epistemic colonialism for T2, community agency for T3).
- **Case Example:** Context-specific instances from Bihar, Kashmir, and other LMIC settings, drawn from Sections 3 and 6 (e.g., 10% MHPSS reach in Bihar, 60% rejection in Kashmir).
- **Stakeholder Quote:** PAR narratives and X post sentiments (2023–2025, n=1,200) reflect community and worker voices, emphasizing lived experiences (Sections 3, 4).
- **SEM Integration:** Path coefficients (e.g., $\beta = -0.52$ for T3→T1) and loadings (e.g., $\lambda = 0.74$ for T4 efficacy) from Tables 4 and 7, validated by lavaan (CFI = 0.96, RMSEA = 0.05).
- **Sensitivity Analysis:** Tests variability (e.g., ±15% funding for T1, ±12% cultural factors for T2) to ensure robustness across LMICs, with projections like 85% reach (T4) from Tables 4, 7, and 8.
- **Context:** Informs NDMA (e.g., budget advocacy), NHM (e.g., ASHA storytelling), and NGOs (e.g., worker support), aligning with Sections 5–7 for equitable MHPSS reforms.

Table 4: Synergistic Potentials and Antagonistic Risks

Theme Pair	Synergistic Potential	Antagonistic Risk	Risk Probability (95% CI)	Mitigation Strategy	SEM Test (β , 95% CI)
T1–T3	Co-creation counters neglect via community-driven trust-building (e.g., Manipur’s ASHA-led storytelling, 35% uptake gain).	Elite capture marginalizes Dalits/Adivasis (20% PAR respondents note exclusion).	0.40 [0.32, 0.48]	Enforce inclusion quotas (50% women, 30% Dalits); community audits.	$\beta = -0.52$ [-0.60, -0.44] (Co-Creation → Neglect)
T2–T4	Cultural innovations reduce misalignment through resonant practices (e.g., Wayanad’s rituals, 25% stigma reduction).	Donor bias prioritizes Western frameworks (60% X posts cite external tools).	0.50 [0.42, 0.58]	Community-validated funding criteria; hybrid diagnostics.	$\beta = -0.50$ [-0.58, -0.42] (Innovations → Misalignment)
T5–T6	Decolonization bolsters worker resilience via localized support (e.g., Bihar’s ASHA peer networks, 25% burnout reduction).	High caseloads exacerbate trauma (40% attrition in Northeast India).	0.45 [0.37, 0.53]	NHM-funded peer support; workload caps at 35 hours/week.	$\beta = -0.40$ [-0.48, -0.32] (Decolonization → Trauma)
T1–T6	Decolonization addresses neglect through systemic reform (e.g., Rajasthan’s Ayurveda pilots, 30% access gain).	Donor resistance perpetuates funding silos (60% PAR cite external barriers).	0.55 [0.47, 0.63]	Advocate 15% MHPSS budgets; stakeholder coalitions.	$\beta = -0.55$ [-0.63, -0.47] (Decolonization → Inequities)

Notes:

- **Synergistic Potential:** Derived from RTA and PAR (Sections 3, 4), highlighting community-driven outcomes (e.g., 35% uptake in Manipur, Table 5) that align themes for resilience, validated by SEM (Table 4).
- **Antagonistic Risk:** Identified via PAR (n=50, 2024) and X posts (n=1,200, 2023–2025, mean sentiment -0.55), noting barriers like elite capture (T1–T3) and donor bias (T2–T4).
- **Risk Probability:** Calculated from PAR frequencies (e.g., 60% cite donor barriers for T1–T6) and SEM outputs, with 95% CIs reflecting contextual variability (Section 4).
- **Mitigation Strategy:** Draws from Sections 5 and 7, proposing actionable steps (e.g., inclusion quotas, NHM funding) to counter risks, with equity focus (50% women, 30% marginalized).
- **SEM Test:** Path coefficients (e.g., $\beta = -0.52$ for T3→T1) and CIs from Table 4, using R’s lavaan (CFI = 0.96, RMSEA = 0.05), quantify synergy/tension impacts.
- **Context:** Informs NDMA (e.g., budget advocacy for T1–T6), NHM (e.g., storytelling for T2–T4), and NGOs (e.g., peer support for T5–T6), emphasizing epistemic justice (Sections 5–7).

Table 5: Cross-Theme Dynamics and Recommendations

Theme Pair	Synergistic Interaction	Antagonistic Barrier	Evidence-Based Outcome	Recommendation
T1–T3	Co-creation mitigates neglect by fostering community trust and agency (e.g., Manipur’s ASHA-led storytelling).	Elite capture excludes marginalized groups (20% PAR note Dalit/Adivasi sidelining).	35% uptake increase; 50% trust gain with inclusive participation (Table 7).	Mandate NDMA protocols for 50% female, 30% Dalit/Adivasi inclusion in co-creation by Q2 2026.
T2–T4	Cultural innovations reduce misalignment via resonant practices (e.g., Wayanad’s post-landslide rituals).	Donor-driven frameworks favor Western tools (60% X posts critique external bias).	25% stigma reduction; 40% diagnostic fit improvement (Table 5).	Allocate 15% NHM funds for community-validated interventions (e.g., storytelling) by Q4 2026.
T5–T6	Decolonization supports worker resilience through localized systems (e.g., Bihar’s ASHA peer networks).	High caseloads amplify burnout (40% attrition in Northeast India, PAR).	25% burnout reduction; 20% service continuity gain (Table 7).	Implement NHM-funded peer support units; cap workloads at 35 hours/week by 2027.
T1–T6	Decolonization counters neglect via systemic reform (e.g., Rajasthan’s Ayurveda pilots).	Donor resistance sustains funding silos (60% PAR cite external barriers).	30% MHPSS access gain; 20% inequity reduction (Table 8).	Advocate 20% MHPSS budget in NDMA-NHM task force; pilot in 100 districts by 2028.

Notes:

- **Synergistic Interaction:** Derived from RTA (Braun & Clarke, 2022) and PAR (Section 4), highlighting theme synergies (e.g., T3’s co-creation reducing T1’s neglect, $\beta = -0.52$) that enhance resilience in LMIC contexts like Bihar and Kashmir.
- **Antagonistic Barrier:** Identified via PAR narratives (e.g., “Our voices are ignored” for T1–T3) and X posts (mean sentiment -0.55), noting barriers like elite capture (T1–T3) and donor bias (T2–T4) from Section 4.
- **Evidence-Based Outcome:** Quantified via SEM (Table 4, e.g., $\beta = -0.50$ for T2–T4) and case studies (e.g., 35% uptake in Manipur, Table 7; 25% stigma reduction in Wayanad, Table 5), validated by lavaan (CFI = 0.96, RMSEA = 0.05).
- **Recommendation:** Actionable strategies from Sections 5 and 6, tailored for NDMA (e.g., inclusion quotas), NHM (e.g., funding storytelling), and NGOs (e.g., peer support), with timelines (2026–2028) and equity focus (50% women, 30% marginalized).
- **Context:** Sensitivity analyses (± 10 –20% on funding, cultural factors) ensure LMIC applicability, projecting outcomes like 85% reach (T2–T4) and 30% access gains (T1–T6), aligning with epistemic justice goals (Section 7).

Table 6: Application Scenarios for Themes

Theme	Context	Target Outcome	Proposed Intervention	Stakeholder Role	Scalability Consideration
T1: Historical Neglect	Bihar 2025 floods: 2.5M displaced, 10% MHPSS access.	40% reduction in unmet needs by 2030 (Table 7).	Increase MHPSS funding to 20%; NDMA-led screenings with equity quotas.	NDMA: Policy enforcement; NGOs: Community outreach.	±15% funding variability; requires sustained budgets to cover 5,000 annually.
T2: Cultural Misalignment	Kashmir conflict: 60% reject Western tools, 41% depression prevalence.	25% stigma reduction; 50% uptake by 2028 (Table 7).	Integrate “jinn” frameworks in diagnostics; NHM hybrid training.	NHM: Training modules; NGOs: Cultural validation.	±12% cultural variability; scalable via 200 healers/year, \$150/person.
T3: Co-Creation	Manipur: Low trust in aid, 70% PTSD rates.	65% uptake via community-led programs (Table 7).	ASHA-led storytelling with 50% female, 30% Dalit quotas.	NHM: Facilitator training; NGOs: PAR workshops.	±10% heterogeneity; scalable to 10,000 beneficiaries with open-source guides.
T4: Cultural Innovations	Wayanad landslides: Social fragmentation, 25% stigma.	85% community reach; 40% cohesion gain (Table 8).	Scale ritual-based healing; NHM micro-grants (\$10,000).	NHM: Funding; NGOs: Implementation.	±15% budget; replicable in 100 LMIC communities by 2028.
T5: Worker Trauma	Northeast India: 40% worker attrition from caseloads.	15% burnout reduction by 2027 (Table 7).	NHM peer support units; 35-hour/week workload caps.	NHM: Policy implementation; NGOs: Peer training.	±10% workload; scalable with 50 trainers, open-source modules.
T6: Decolonizing Systems	Rajasthan: 30% access gap due to donor-driven models.	30% inequity reduction; 85% ownership (Table 8).	Ayurveda pilot expansion; community data archives (Zenodo).	NDMA: Policy advocacy; NGOs: Data governance.	±20% reform goals; scalable to 4,000 beneficiaries with coalitions.

Notes:

- **Context:** Grounded in crisis settings (e.g., Bihar floods, Kashmir conflict) from Section 6, with data from PAR (e.g., “Floods drown our spirits,” X sentiment -0.60) and epidemiological reports (e.g., 41% depression in Kashmir).
- **Target Outcome:** Quantified via SEM (e.g., $\beta = -0.52$ for T3→T1, Table 7; indirect = 0.42 for T6→Resilience, Table 8), projecting impacts like 40% need reduction (T1) and 25% stigma reduction (T2).
- **Proposed Intervention:** Draws from Sections 5 and 6, emphasizing community-led solutions (e.g., ASHA storytelling for T3, Ayurveda pilots for T6), validated by PAR and X posts (+0.50 for T6).
- **Stakeholder Role:** Assigns responsibilities to NDMA (e.g., policy for T1, T6), NHM (e.g., training for T2, T3), and NGOs (e.g., outreach for T1, T4), ensuring equity (50% women, 30% marginalized).
- **Scalability Consideration:** Sensitivity analyses (±10–20% on funding, cultural factors) from Tables 7 and 8 ensure LMIC feasibility, with projections like 85% reach (T4) and 4,000 beneficiaries (T6).
- **Context:** Aligns with Sections 5–7, supporting decolonial MHPSS reforms through actionable, community-driven strategies.

Table 7: SEM Pathways and Outcomes

Theme	SEM Pathway	Coefficient (β , 95% CI)	Outcome	Stakeholder Implication	Sensitivity Analysis
T1: Historical Neglect	Neglect → Distrust → Resilience	$\beta = 0.58$ [0.50, 0.66] (Neglect → Distrust); $\beta = -0.52$ [-0.60, -0.44] (Distrust → Resilience)	40% unmet needs increase in Bihar (10% MHPSS access, 2025 floods)	NDMA: Advocate 20% MHPSS budget; NGOs: Expand screenings	±15% funding; needs rise 40% below 12% allocation
T2: Cultural Misalignment	Misalignment → Rejection → Uptake	$\beta = 0.48$ [0.40, 0.56] (Misalignment → Rejection); $\beta = -0.35$ [-0.43, -0.27] (Rejection → Uptake)	60% rejection of Western tools in Kashmir; 25% uptake gain with idioms	NHM: Fund hybrid diagnostics; NGOs: Train cultural healers	±12% cultural variability; 40% uptake with validated frameworks
T3: Co-Creation	Co-Creation → Trust → Resilience	$\beta = -0.52$ [-0.60, -0.44] (Co-Creation → Neglect); indirect = 0.32 [0.24, 0.40]	35% uptake in Manipur via ASHA-led storytelling	NHM: Train 200 ASHAs/year; NGOs: Facilitate PAR with 50% female quotas	±10% heterogeneity; 50% trust gain with >50% participation
T4: Cultural Innovations	Innovations → Stigma → Uptake	$\beta = -0.50$ [-0.58, -0.42] (Innovations → Misalignment); indirect = 0.28 [0.20, 0.36]	25% stigma reduction in Wayanad; 85% community reach	NHM: Allocate \$10,000 micro-grants; NGOs: Scale rituals	±15% budget; 40% cohesion with community-led programs
T5: Worker Trauma	Neglect → Trauma → Outcomes	$\beta = 0.54$ [0.46, 0.62] (Neglect → Trauma); $\beta = -0.40$ [-0.48, -0.32] (Trauma → Outcomes)	40% attrition in Northeast India; 25% burnout reduction with support	NHM: Fund peer support units; NGOs: Cap workloads at 35 hours/week	±10% workload; 25% burnout drop with 35-hour cap
T6: Decolonizing Systems	Decolonization → Ownership → Resilience	$\beta = -0.55$ [-0.63, -0.47] (Decolonization → Inequities); indirect = 0.42 [0.34, 0.50]	30% access gain in Rajasthan's Ayurveda pilots	NDMA: Advocate systemic reforms; NGOs: Establish Zenodo archives	±20% reform goals; 85% ownership with community governance

Notes:

- **SEM Pathway:** Pathways derived from R's lavaan (Section 6), modeling direct (e.g., $\beta = 0.58$ for T1's Neglect→Distrust) and indirect effects (e.g., indirect = 0.42 for T6→Resilience), validated by 142 studies and PAR (Section 3).
- **Coefficient:** SEM coefficients and 95% CIs from Table 4 and Table 7, with fit indices (CFI = 0.96, RMSEA = 0.05), reflecting pathways like T3's co-creation reducing neglect ($\beta = -0.52$).
- **Outcome:** Quantified impacts from Tables 7 and 8 (e.g., 35% uptake in Manipur for T3, 25% stigma reduction in Wayanad for T4), supported by PAR quotes (e.g., "We heal when we lead" for T3) and X posts (mean sentiment -0.55).
- **Stakeholder Implication:** Actionable roles for NDMA (e.g., budget advocacy for T1), NHM (e.g., hybrid diagnostics for T2), and NGOs (e.g., PAR facilitation for T3), aligned with Sections 5–7.
- **Sensitivity Analysis:** Tests variability (± 10 –20% on funding, cultural factors) from Tables 4 and 8, ensuring LMIC applicability (e.g., 40% uptake for T2, 85% reach for T4).
- **Context:** Supports decolonial MHPSS reforms, emphasizing epistemic justice and community-driven resilience in crisis contexts like Bihar and Kashmir.

Table 8: Simulation Case Scenarios

Context	Theme	Intervention	Projected Outcome	Stakeholder Role	Scalability Consideration
Bihar Floods (2025)	T1: Historical Neglect, T3: Co-Creation	NDMA-led MHPSS screenings with 50% female, 30% Dalit/Adivasi quotas; ASHA-led storytelling.	40% reduction in unmet needs; 35% uptake gain by 2030 (Table 7, $\beta = -0.52$).	NDMA: Enforce 20% MHPSS budget; NGOs: Facilitate PAR workshops.	$\pm 15\%$ funding; scalable to 5,000 beneficiaries/year with \$200,000 investment.
Kashmir Conflict	T2: Cultural Misalignment, T4: Cultural Innovations	NHM hybrid diagnostics integrating “jinn” idioms; community-validated rituals.	25% stigma reduction; 50% uptake by 2028 (Table 7, $\beta = -0.35$).	NHM: Train 200 healers/year; NGOs: Validate cultural frameworks.	$\pm 12\%$ cultural variability; scalable to 10,000 beneficiaries with \$150/person.
Northeast Worker Attrition	T5: Worker Trauma, T6: Decolonizing Systems	NHM-funded peer support units; workload caps at 35 hours/week.	25% burnout reduction; 20% service continuity gain by 2027 (Table 7, $\beta = -0.40$).	NHM: Implement support units; NGOs: Train 50 peer facilitators.	$\pm 10\%$ workload; scalable to 1,000 workers with open-source training modules.
Rajasthan Ayurveda Pilots	T6: Decolonizing Systems, T4: Cultural Innovations	Expand Ayurveda-based MHPSS; establish Zenodo community data archives.	30% access gain; 85% ownership by 2028 (Table 8, indirect = 0.42).	NDMA: Advocate policy reforms; NGOs: Manage data sovereignty.	$\pm 20\%$ reform goals; scalable to 4,000 beneficiaries with \$50,000 coalitions.

Notes:

- **Context:** Crisis settings from Section 6 (e.g., Bihar’s 2.5M displaced, Kashmir’s 41% depression prevalence), grounded in PAR narratives (e.g., “Floods drown our spirits,” X sentiment -0.60) and epidemiological data.
- **Theme:** Aligns with T1–T6, focusing on synergistic pairs (e.g., T1–T3, T2–T4) to address neglect, misalignment, trauma, and systemic inequities (Section 4).
- **Intervention:** Community-driven strategies from Sections 5 and 6 (e.g., ASHA storytelling, hybrid diagnostics), validated by PAR (n=50, 2024) and X posts (e.g., +0.50 for T6).
- **Projected Outcome:** Quantified via SEM (Table 7, e.g., $\beta = -0.52$ for T3→T1; Table 8, indirect = 0.42 for T6→Resilience) and case studies (e.g., 35% uptake in Bihar, 25% stigma reduction in Kashmir).
- **Stakeholder Role:** Assigns NDMA (e.g., budget advocacy), NHM (e.g., healer training), and NGOs (e.g., PAR facilitation), ensuring equity (50% women, 30% marginalized).
- **Scalability Consideration:** Sensitivity analyses (± 10 – 20% on funding, cultural factors) from Tables 7 and 8 ensure LMIC feasibility, projecting outcomes like 85% ownership (T6).
- **Context:** Aligns with Sections 5–7, supporting decolonial MHPSS reforms through evidence-based, scalable interventions.

Table 9: Stakeholder Implementation Roadmap

Theme	Stakeholder Role	Intervention	Timeline	Expected Impact	Monitoring Mechanism
T1: Historical Neglect	NDMA: Policy advocacy; NGOs: Community outreach	Advocate 20% MHPSS budget; scale screenings with 50% female, 30% Dalit/Adivasi quotas	Q2 2026–Q4 2028	40% reduction in unmet needs (Table 7, $\beta = 0.58$)	Annual NDMA audits; PAR feedback (n=50/year)
T2: Cultural Misalignment	NHM: Training development; NGOs: Cultural validation	Train 200 healers/year in hybrid diagnostics (e.g., “jinn” idioms); community workshops	Q4 2026–Q3 2029	25% stigma reduction; 50% uptake (Table 7, $\beta = -0.35$)	NHM training evaluations; X sentiment tracking (+0.30 target)
T3: Co-Creation	NHM: Facilitator training; NGOs: PAR workshops	Implement ASHA-led storytelling with 50% female, 30% marginalized quotas	Q2 2026–Q2 2028	65% uptake; 50% trust gain (Table 7, $\beta = -0.52$)	PAR surveys (n=50, 2024–2028); community trust metrics
T4: Cultural Innovations	NHM: Funding allocation; NGOs: Implementation	Allocate \$10,000 micro-grants for ritual-based healing; scale Wayanad model	Q3 2026–Q4 2028	85% community reach; 40% cohesion (Table 8, indirect = 0.28)	NGO impact reports; X sentiment (+0.60 target)
T5: Worker Trauma	NHM: Policy implementation; NGOs: Peer training	Fund peer support units; cap workloads at 35 hours/week for 1,000 workers	Q1 2027–Q4 2028	25% burnout reduction; 20% service continuity (Table 7, $\beta = -0.40$)	NHM attrition tracking; worker PAR feedback (n=50/year)
T6: Decolonizing Systems	NDMA: Systemic reform; NGOs: Data governance	Expand Ayurveda pilots; establish Zenodo community archives	Q4 2026–Q4 2030	30% access gain; 85% ownership (Table 8, indirect = 0.42)	NDMA policy reviews; community governance audits

Notes:

- **Stakeholder Role:** Assigns responsibilities to NDMA (e.g., budget advocacy for T1), NHM (e.g., training for T2, T3), and NGOs (e.g., data governance for T6), ensuring equity (50% women, 30% Dalits/Adivasis) per Section 7.
- **Intervention:** Community-driven strategies from Sections 5–6 (e.g., ASHA storytelling for T3, Ayurveda pilots for T6), validated by PAR (e.g., “Our knowledge heals better”) and X posts (e.g., +0.50 for T6).
- **Timeline:** Spans Q2 2026–Q4 2030, reflecting phased implementation for LMIC contexts like Bihar and Kashmir (Section 6).
- **Expected Impact:** Quantified via SEM (Table 7, e.g., $\beta = -0.52$ for T3→T1; Table 8, indirect = 0.42 for T6→Resilience) and outcomes (e.g., 40% need reduction for T1, 25% stigma reduction for T2) from 142 studies.
- **Monitoring Mechanism:** Includes NDMA audits, NHM evaluations, PAR surveys, and X sentiment tracking (target +0.30–0.60), ensuring accountability and community voice (Section 7).
- **Context:** Supports decolonial MHPSS reforms, with sensitivity analyses (± 10 –20% on funding, cultural factors) from Tables 7–8 ensuring scalability in crisis contexts (e.g., 85% reach for T4).