



COMMUNITY-LED LANDSCAPE ASSESSMENT

Uttar Pradesh

A State-Level Summary of the Community-Led Landscape Character Assessment (LCAT)

13

VILLAGES

7

DISTRICTS

8

LIFE-ELEMENTS

5.2 1.▲

Down · mixed · up

EXECUTIVE SUMMARY

What thirteen villages found, in brief

The Community-led Landscape Character Assessment (LCAT) pilot, developed by Transform Rural India (TRI), examined 13 villages across seven districts of Uttar Pradesh—ranging from the moist Terai foothills to the semi-arid plateau of Bundelkhand—to pioneer a re-integrated approach to rural planning. By examining local landscapes across eight interdependent life-elements (Jeevan Tatva), including hydrology, soil, biodiversity, and community governance, LCAT provides a structured framework to read the village as a single living system. This participatory exercise bridges community memory with formal administrative planning, capturing how climate variability, land-use shifts, and socio-economic pressures interact on the ground.

At the core of the state's climate challenge lies a profound "double disconnection" that conventional development programs fail to address. First, rapid climatic shifts, falling water tables, and unreadable monsoons have severed rural citizens from their inherited capacity to read their own land, producing a deep-seated distress, or solastalgia, as their home environment deteriorates around them. Second, formal planning mechanisms through Gram Panchayats (such as the GPDP and VPRP) remain disconnected from landscape realities, operating as inventory-driven lists of scheme entitlements rather than ecological readings. As a result, infrastructure works like handpumps or embankments are scheduled in isolation, neglecting local hydrological flows, soil health, and long-term climate vulnerability.

FINDINGS

The field findings across the 13 pilot villages expose a cascading ecological crisis running alongside material modernization. Biodiversity loss emerged as a universal red line across every site, with pollinator declines so severe in parts of Aligarh that farmers now pollinate cucurbit crops by hand. Surface water systems—ponds, tanks, and traditional wells—have dried or been farmed over, driving an individual "depth race" as households turn to private electric submersibles that accelerate groundwater depletion. Meanwhile, traditional millet (mota anaaj) cultivation has given way to chemical paddy-wheat monocultures, a transition driven significantly by acute farm labor shortages caused by out-migration. Paradoxically, this ecological and sensory decline—tracked by villagers through lost soil fragrances, crusted topsoil, and rising chronic health issues—coexists with genuine progress in physical connectivity, pucca housing, expanded Self-Help Group (SHG) networks, and visibly reduced caste discrimination.

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ACKNOWLEDGEMENTS

This reading belongs to those who did it

This report is, first and foremost, a record of what villages chose to say about their own landscape. It exists only because of the people who gave their time, their memory and their trust to the two days of each assessment — and the people who carried the exercise from village to village across districts.

TO THE PARTICIPATING COMMUNITIES

Our deepest thanks to the women, men, youth and elders of the villages who sat through the circle, walked the transects, argued the trendlines and pressed an inked palm to the wall of commitment. The knowledge, observations and priorities in this report are theirs; we have tried only to carry them faithfully onto the page.

TO THE GROUND STAFF & FIELD TEAMS

Thank you to the ground staff and field teams who facilitated each two-day assessment — who built the trust that readiness requires, guided the eight groups across the landscape, and translated between local dialects so that every voice in the room could be recorded in its own words.

TO THE BILLION NEXT TEAM

With thanks to the Billion Next team for their partnership and support in bringing this pilot to completion.

"This is the first time we have looked at our village, and all that has changed in it, together — as one community."

A SELF-HELP-GROUP MEMBER · LCAT FIELD CONVERSATIONS

Finally, we thank the Rainmatter Foundation for its generous financial support and flexible learning approach. When donors act as learning partners, the output is significantly enriched.

This report is offered in gratitude to everyone named and unnamed above — with the hope that it returns something useful to the villages whose testimony fills its pages, in the spirit of Transform Rural India Foundation's work with rural communities.

03

The Village

An introduction to the Community-Led Landscape Assessment—its framework, the eight life-elements, and the method, for the general reader.

AUTHORS

Anveshi Gupta · Ashok Kumar · Neeraja Kudrimoti

ABOUT THIS DOCUMENT · IN PLAIN LANGUAGE

The Community-Led Landscape Assessment (**LCAT**) is a facilitated, two-day exercise in which the people of a village assess the health of their own landscape across eight dimensions — from water and soil to culture and governance — and turn that shared reading into a practical, prioritised plan.

Developed by Transform Rural India, it is adapted from Natural England's Landscape Character Assessment framework and re-rooted in the rural Indian context. This section introduces the framework in three movements: why such an assessment is needed, what it reads and how it thinks, and how the exercise unfolds on the ground. No prior familiarity with climate science is assumed.

THE THREE MOVEMENTS

- 1 Why an assessment is needed — the crisis of place
- 2 What it reads & how it thinks — eight life-elements
- 3 How it unfolds — two days on the ground

CHAPTER 1

When a Landscape Stops Making Sense

Climate change, the people–place bond, and why village plans keep missing both.

An elderly farmer, asked what had changed in his village over the years, did not begin with temperature of watching your home landscape change around you while you still stand within it — a homesickness felt without ever leaving home. Nostalgia mourns a place you have left behind; solastalgia mourns a place that has left you.

For a long time, climate work in rural India has treated such testimony as soft data — the poetry quoted before the "real" numbers begin. This document takes the opposite view. Carefully documented, solastalgia is among the most rigorous datasets a warming country can build, precisely because it records what satellites cannot: the disappearance of a fragrance, the absence of a once-dependable cool wind, the silence where a bird's call used to be.

"Ten years ago, when the rain fell, the soil would give off that earthy fragrance after the first shower. Now even that is gone."

AN ELDERLY FARMER · LCAT FIELD CONVERSATIONS

To understand why a lost fragrance matters, we take the bond between people and place seriously. The human geographer **Yi-Fu Tuan** called this attachment *topophilia* — and in rural India, it is not sentiment but infrastructure. A farmer's sowing calendar, a pastoralist's grazing route, a household's instinct for when to plant — all are tuned to the rhythms of one particular landscape. Climate change, at its most intimate, is the breaking of that fluency. Three thinkers converge on one lesson.

TUAN · 1974

Topophilia

Why place holds people. The affective tie between human beings and their physical environment.

ALBRECHT · 2005

Solastalgia

What it feels like when place lets go. The grief of a home that changes while you still stand in it.

LEWIN · 1936–51

Field theory · $B = f(P, E)$

Why no planworks without the place. Behaviour is a function of the person *and* their environment together.

Figure 1 — Three thinkers, one lesson: the people–place bond is where climate planning must begin.

THE WEATHER THAT BROKE ITS WORD

This is fast becoming a national condition

Where the southwest monsoon weakens, the decline concentrates in June and July — the precise weeks when kharif crops must be sown — even as many places see more days of heavy, compressed downpour. The water is arriving in the wrong shape: too little when the seed needs it, too much all at once when it does not.

$\approx 3/4$ Indian districts prone to severe floods, droughts & cyclones	$>80\%$ of Indians live in districts highly vulnerable to climate extremes	$>40\%$ of districts now swap between flood and drought	$>50\%$ of India's net sown area is rainfed—the monsoon is destiny
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Source: CEEW (2020, 2021, 2023). Proportions approximate.

THREE GAPS BETWEEN CLIMATE PLANNING & THE VILLAGE

Between the science of climate change and the lived reality of a village stand three stubborn gaps — which is why the connection has never made itself.

01 · The Normative Gap No rule asks a village plan to look at climate. The VPRP and GPDP formats contain no requirement for a structured reading of the landscape or its vulnerability.	02 · Distant Science Robust analysis needs decades of local data that is largely absent below the district. Risk maps stop at the boundary; the process marginalises the very people affected.	03 · Thin Services Extension advice, warnings, credit and insurance thin toward the last mile — and the infrastructure meant to absorb shocks fails in the same weather.
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Figure 2 — The three gaps that leave village planning climate-blind.

THE DOUBLE DISCONNECTION

On one side, **people are severed from the places that hold their knowledge** — the farmer who can no longer read his sky. On the other, **planning has disconnected from that lived reality**, organising itself around schemes rather than the living landscape they are meant to serve. The two feed each other — and healing them is the central problem this framework exists to address.

CHAPTER 2

The Eight Life-Elements

Reading the village as one system.

The exercise often begins not with a form but with a circle. The facilitator draws a large circle and says: *this is your village — the whole*. Around it she writes eight words — the village's eight life-elements, the parts that make up the whole — and offers an image that does more work than any definition: the eight elements are like the parts of a body. Each one matters for the health of the whole, and none can be hurt without the others feeling it.

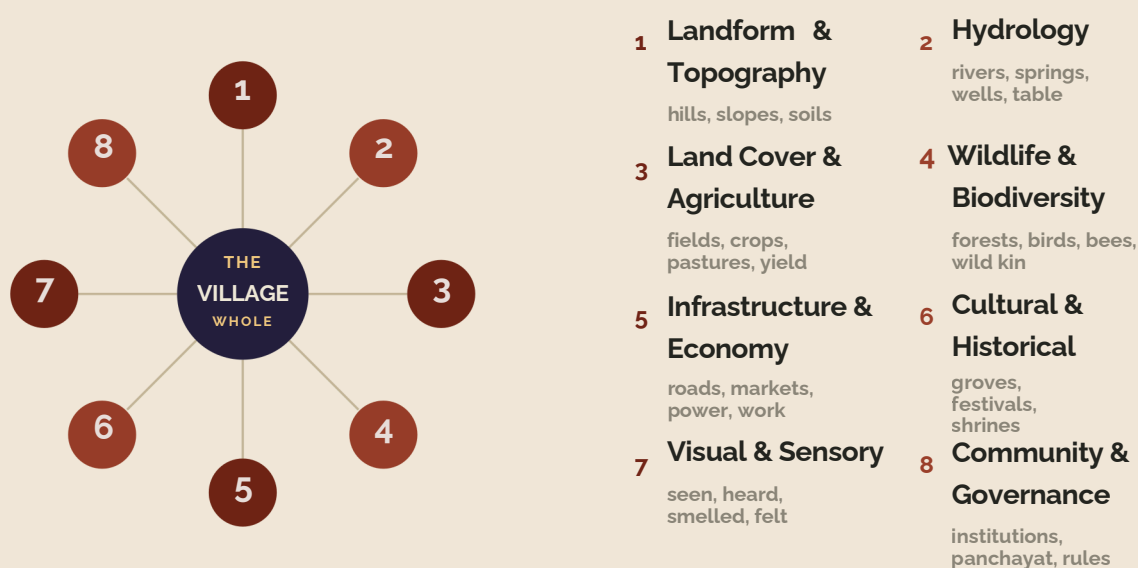


Figure 3 — The eight life-elements: the village read as one living body. Read together, they describe a single working system — to read any one in isolation is to misread it.

This insistence on the whole is forced by the nature of climate stress itself. An erratic monsoon, intensifying heat and a multi-hazard exposure that swings a district between flood and drought do not respect the tidy boundaries between water, soil, forest, crop and culture. Climate change travels along the connections — so reading the village as one system is simply reading it the way the climate already acts on it.

Consider the sacred grove whose canopy quietly cools the three fields beside it. On a conventional inventory it appears, if at all, as a heritage line item. But trace the cascade — a single quiet failure propagates across five of the eight life-elements at once.



Figure 4 — The grove cascade: how one loss travels across the life-elements. The chain runs the other way too — and faster under climate stress.

THREE COMMITMENTS, NOT SLOGANS

Ground-up

It begins with memory, not a form — the lived knowledge of people who walk the land daily.

What has changed in the last five, ten, twenty years?

Narrative

Testimony is treated as evidence. Each element gets a trendline — past, present, future.

We are not writing a summary; we are building evidence.

Community-led

An assessment led by the village, not done to it. A plan handed down is ignored; a reading produced together is owned and defended.

CHAPTER 3

The Method: Two Days

How a village learns to see itself — and then to decide.

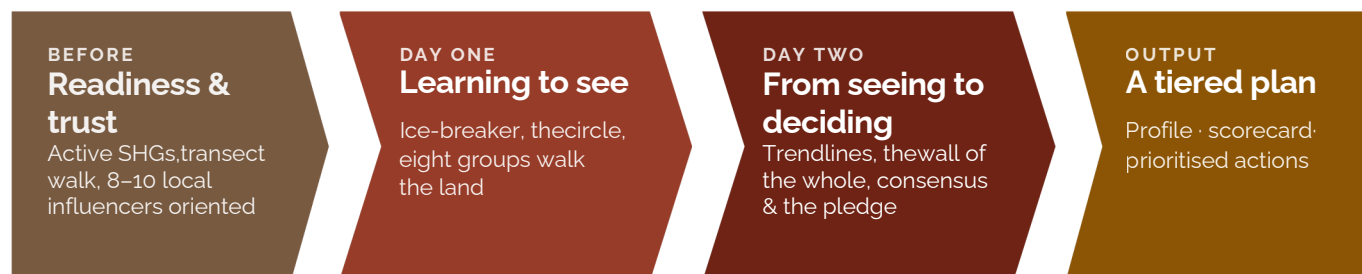


Figure 5 — The assessment at a glance: from readiness to plan.

Day one opens with an ice-breaker that is quietly radical: every person shares their name and one environmental change they have noticed in the last five years. Before any framework is introduced, every voice has already contributed a data point. Then comes the circle on chart paper — the village as the whole, the eight elements as its parts — and eight mixed groups (elders, women, youth, the landless) walk the land, each documenting at least three observed effects.

Something remarkable happens when a village looks at itself through deliberately different eyes. The LCAT's crucial move is to treat the friction between these vantage points as evidence in its own right — not a disagreement to be smoothed away.

DIFFERENT EYES, DIFFERENT FUTURES

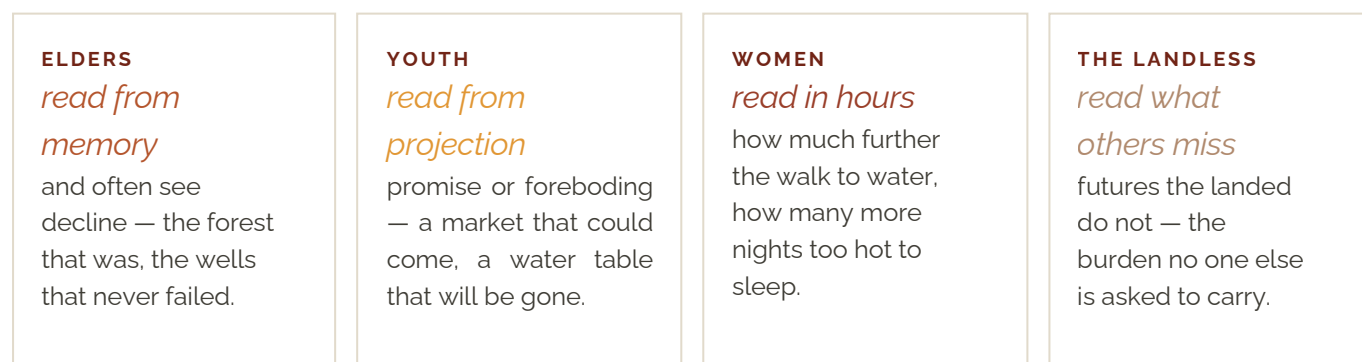


Figure 6 — Four vantage points, one shared picture — disagreement treated as evidence.

A final act of sorting turns a wish-list into a plan: every priority is placed in one of three tiers by *who must act*. This protects the community's own agency while making its demands on the state precise, sequenced and accountable.

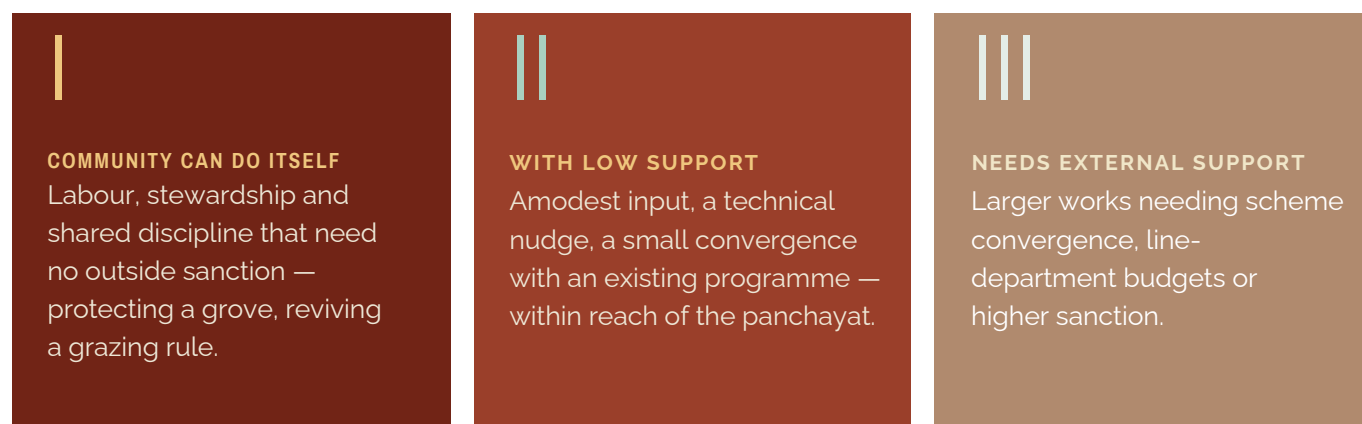


Figure 7 — Three tiers of action: agency first, precise demands after.

CONCLUSION

A Climate Lens for the Planning Cycle

How a village's reading of itself becomes the way it is administered.

The LCAT does not run parallel to government planning; it brings a climate lens into it. By the end of the two days the village holds three concrete things — and each feeds directly into the existing planning cycle, reversing the direction of fit so the schemes bend around the village's reading, rather than the village around the schemes.

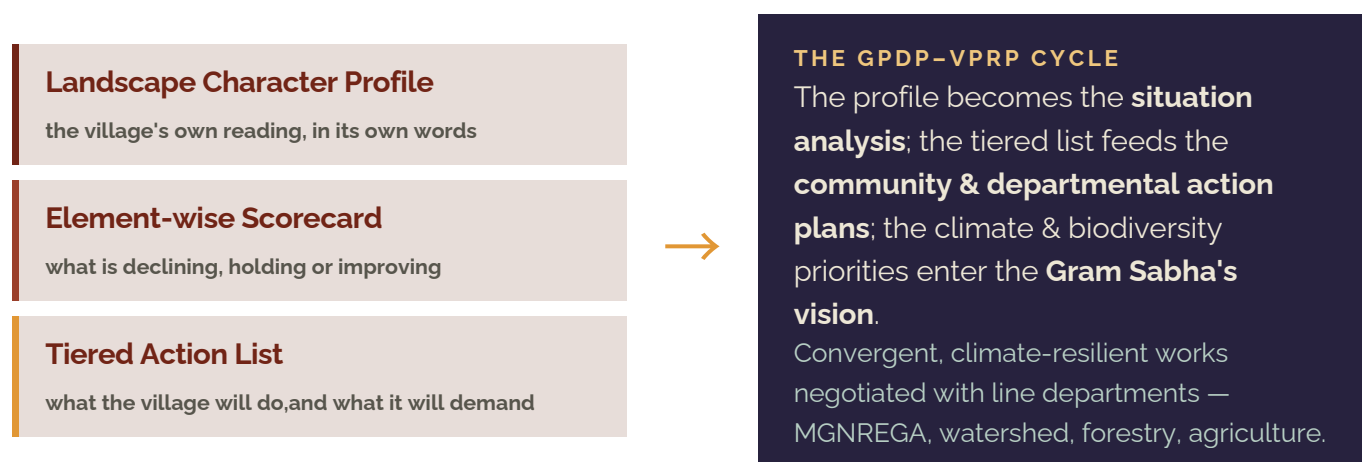


Figure 8 — From assessment to administration: LCAT outputs entering the GDPD-VPRP cycle.

"This is the first time we have looked at our village, and all that has changed in it, together — as one community."

A SELF-HELP-GROUP MEMBER · LCAT FIELD CONVERSATIONS

What the tool ultimately does is heal the double disconnection: by treating memory and grief as legitimate data, it reconnects people to the places that hold their knowledge; by reading the village as one living system and carrying that into the administrative machinery, it reconnects planning to lived reality. The grief becomes a map; the map becomes a plan.

04

Uttar Pradesh: *Where the Water Decides*

A state introduction to climate variability, vulnerability, and the case for a Community-Led Landscape Assessment — in a state where the economy does not merely sit on the land. It is the land.

ONE · THE EVIDENCE

The Agro-Ecological Tapestry and Historical Trends

Every landscape in Uttar Pradesh is, in one way or another, the work of rivers.

The Ganga and the Yamuna, the Ghaghara and the Gandak, the Rapti and the Betwa — descending from the Himalaya and the Vindhyan uplands, they built the great alluvial plain on which nearly a quarter of a billion people now live. No state has more people exposed to climate risk, and no state's exposure is more intimately tied to water: where it arrives, when it arrives, and — increasingly — whether it arrives as gift or as flood.

It is tempting to picture this as one vast, uniform plain. It is anything but. The state's agricultural planners read Uttar Pradesh through **nine agro-climatic zones**, nested within three of India's national planning regions — the Upper Gangetic Plains in the west, the Middle Gangetic Plains in the east, and the Central Plateau and Hills in the south. Along the Nepal border runs the Bhabhar and Tarai belt, a moist, spring-fed fringe beneath the Himalaya. The west holds the intensively farmed Western, Mid-Western and South-Western plains, thinning from sugarcane country into semi-arid tracts around Agra and Mathura. The centre and east carry the Central, North-Eastern and Eastern plain zones — the state's rice-and-wheat heartland, crowded, fertile and flood-visited. And in the south the land rises out of the alluvium altogether, into the Vindhyan zone's forested plateau and the granite austerity of Bundelkhand.

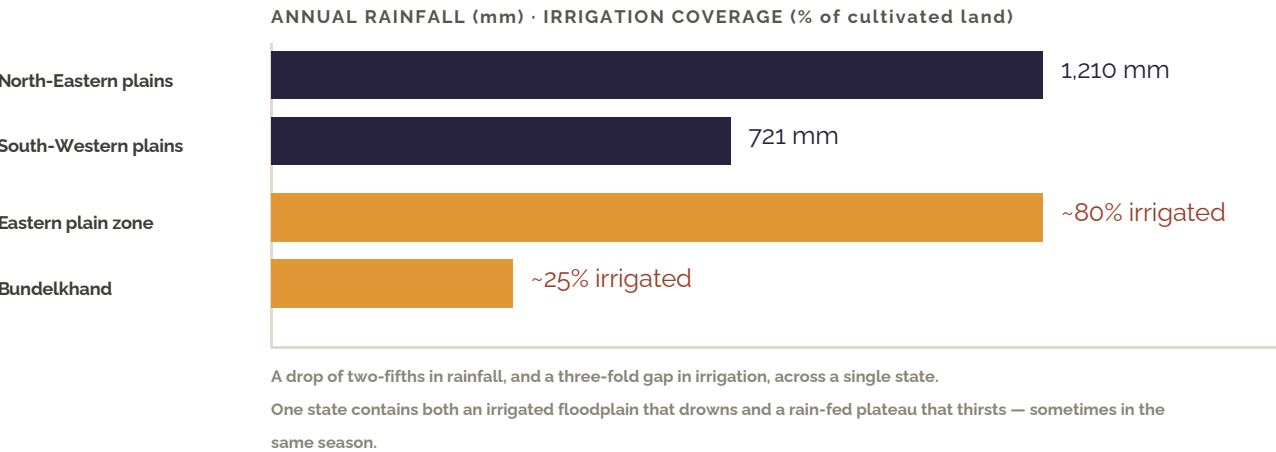


Figure 1 · The water gradient across the sub-zones, from TRI's compilation of state agro-climatic zone profiles. Indicative planning values.

For generations, the plain's deep soils and the monsoon's rough reliability made this the most forgiving farmland in India — forgiving enough to sustain the country's largest rural population on some of its smallest farms. That bargain is now being renegotiated. Over the past two decades the state has recorded more prolonged spells of extreme heat and more intense rainfall, and it stands exposed to the full register of extreme events — heat waves, cold waves, floods, droughts and lightning (UPCCCE, n.d.). State planning documents estimate that around **30 per cent of Uttar Pradesh's geographical area is flood-prone**, and project annual rainfall rising by roughly 15–20 per cent and maximum temperatures by about 1.8–2.1°C by the 2050s, with the Bundelkhand and Vindhyan districts singled out as highly vulnerable (Government of Uttar Pradesh, n.d.; these projection figures should be treated as approximate).

An independent reading points in the same direction. CRAVIS — the Climate Resilience Analytics and Visualisation Intelligence System launched by CEEW in April 2026, which combines more than forty years of historical data from institutions including the India Meteorological Department and IITM Pune with district-level projections to 2070 (CEEW, 2026) — shows the state's average annual temperature climbing under the high-emissions RCP 8.5 pathway. And where most states carry one headline hazard, the platform's risk profile for Uttar Pradesh names two at once: **flood, rated high, and heat, rated high**. This is the state's defining climatic condition — a double-fronted crisis, water and heat advancing together.

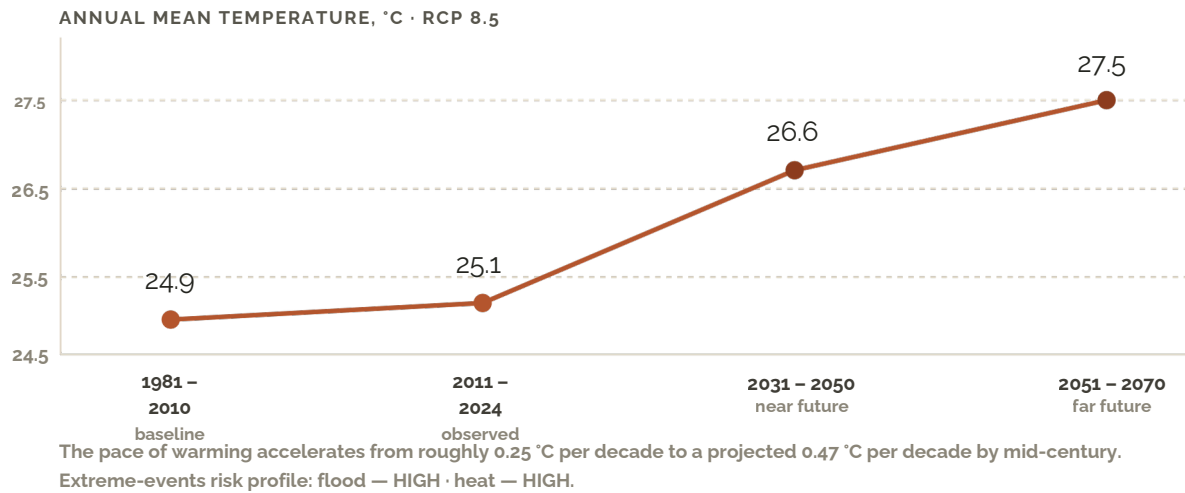
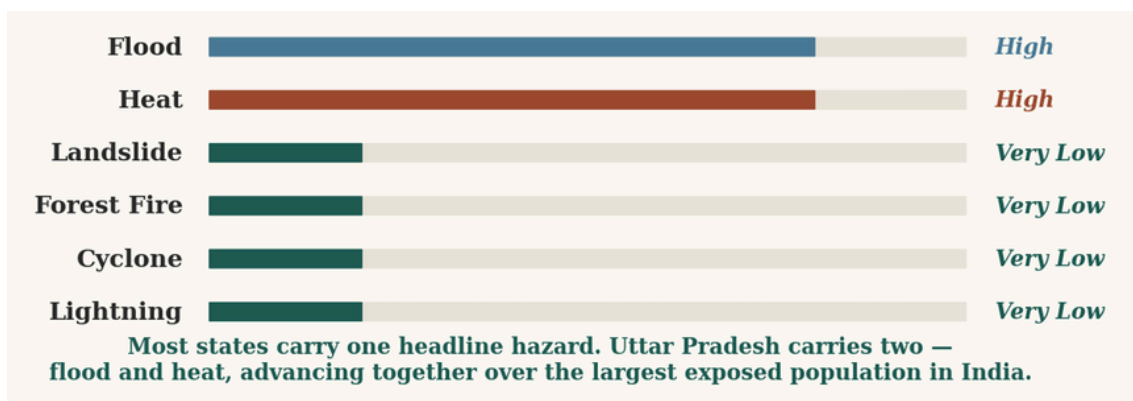


Figure 2 · Temperature trajectory for Uttar Pradesh, redrawn from the CRAVIS (CEEW) state dashboard under RCP 8.5. Values are unweighted district averages as displayed; exact values to be re-confirmed at source.

Extreme-events risk profile



The ground already testifies to it. In the north and east, excess rain in the Himalayan foothills and transboundary flows from Nepal drive recurrent flooding across the Tarai and the eastern districts. In the south, Bundelkhand — sharing its drought belt with Madhya Pradesh — endured a long decline in rainfall and repeated multi-year droughts (IndiaSpend, 2023), until 2025, when a record monsoon arrived weeks early and drowned the same parched fields, destroying the kharif crop (Down To Earth, 2025). **A drought region drowning is the clearest possible evidence that the old seasonal certainties have broken.** A state built by rivers is discovering that the rivers no longer keep the old appointments.

TWO

The Missing Climate Lens

If water decides everything in Uttar Pradesh, one would expect the state's village-level planning to begin with a careful reading of water — and of the land, forest and life that hold it. It does not. What we find instead is a lens that has gone missing at exactly the level where the change is felt first: the village itself. Two ruptures, working quietly together, explain why so much well-intentioned effort misses its mark. We have come to call them **the double disconnection**.

FIRST RUPTURE**People disconnected from place**

In the eastern floodplains, elders can date the year the river began arriving differently — earlier, higher, less announced. In Bundelkhand the disconnection has become literal: repeated crop failure has driven cyclical out-migration, hollowing villages of their working generation. Those who remain describe a home changing around them while they still stand in it — the grief scholarship calls *solastalgia*. When the sky can no longer be read for the sowing date, and the migration bus takes the very people who once read it, a village's inherited ability to understand its own landscape begins to erode.

SECOND RUPTURE**Planning disconnected from place**

Every village in Uttar Pradesh prepares an annual development plan through its panchayat, and women's collectives prepare their own poverty-reduction plans alongside it. Yet these are typically assembled without any structured reading of the village's landform, water, biodiversity or climate exposure. The village enters the plan as a list of habitations, works and beneficiaries — not as a living floodplain, a recharge zone, or a heat-stressed labour pool.

Figure 3 · The double disconnection: people estranged from a changing place, and plans prepared without the place.

Put the two together and the result is quietly devastating: **the people who know the landscape best are grieving it — or leaving it — without a forum, while the forums that decide the village's future are planning without the landscape.**

The repair is not another scheme but a re-integration — of four strands that in a healthy village were never separate. *People* hold the longest, finest-grained climate record available anywhere: which year the flood first crossed the old high-water mark, which field turns saline after the waters recede,

which well held through the worst Bundelkhand summer. *Institutions* — the gram panchayat, the self-help groups and their federations — hold the legitimacy and the planning mandate to act. *Ecology* is the stage on which everything else stands. And *culture* is the connective tissue — the ghat and the grove, the fair timed to a harvest that no longer arrives on schedule. A village pond that recharges ten wells finds no column in a scheme; a boatman's knowledge of the river fits in no form; yet these are load-bearing structures of resilience. Most climate interventions pick one strand and pull. What Uttar Pradesh needs is a way of seeing that braids all four back together, village by village. **That is the missing climate lens.**

THREE

Systemic Hurdles

Why has this lens not simply been supplied from above? Because three systemic hurdles stand in the way, and in Uttar Pradesh each arrives at maximum scale. **First, a normative gap in how adaptation is imagined.** Reviews of India's State Action Plans on Climate Change have found them short on granular, place-specific vulnerability assessment and poorly converged across the line departments that must act on them (Rattani et al., 2018). In a state where one region needs drainage and another needs recharge, that coarseness is the difference between a plan that fits and a plan that misfires. Heat, meanwhile, is still largely treated as an episodic emergency rather than a structural condition to be designed against.

Second, the difficulty of applying rigid scientific practice to dynamic local contexts. The state's flood management has long been built on a confident engineering logic — embank, drain, repeat — yet rivers on this plain shift course, and a structure that protects one village can deepen the flood in the next. A district-scale model cannot see that one village sits on a natural recharge zone while its neighbour sits on a drainage line. The problem is not science; it is science that has forgotten to ask.

Third, the plainest: the communities most exposed are those with the least cushion. Around **92 per cent of the state's cultivators are small and marginal farmers** (UPCCCE, n.d.), holding parcels too small to absorb a single failed season. Outdoor workers — farm labourers, brick-kiln hands, construction crews — work unprotected through lengthening summers, and occupational law still does not account for outdoor heat stress. With male out-migration heaviest in regions like Bundelkhand, women increasingly run the farms and carry the water and fuel burden of drought while holding a small fraction of land titles. And a national assessment places more than half of Uttar Pradesh's districts in the high category for climate hazard bearing on the health sector (CEEW, 2025). Each hurdle compounds the others; the result is adaptation always slightly out of focus — and in a state this large, 'slightly' means millions of people.

FOUR

Triangulating Vulnerability

How vulnerable is Uttar Pradesh — really? No single number can say, and in this state the numbers appear at first to disagree. **That disagreement is not a flaw in the evidence; it is the evidence.**

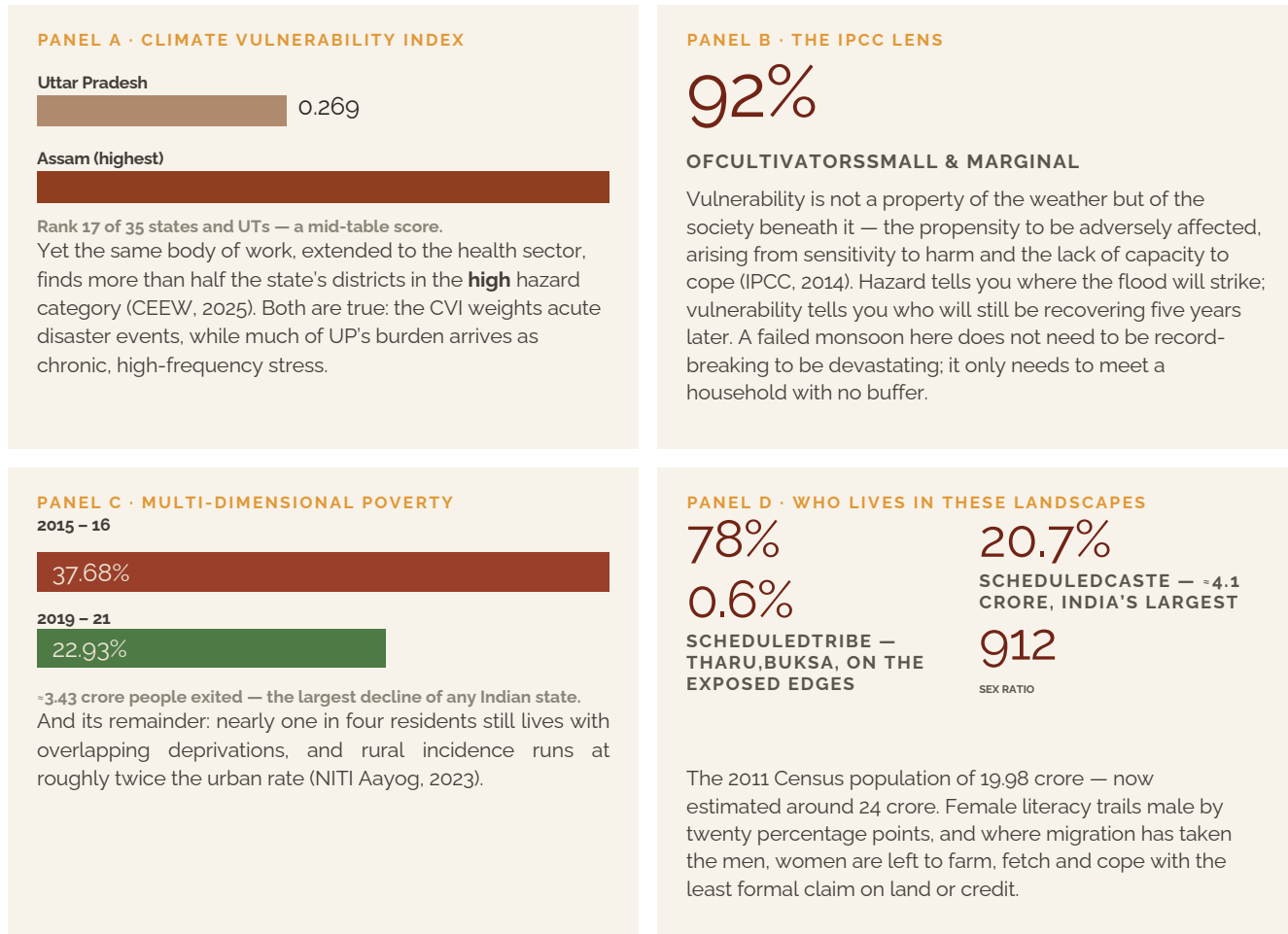


Figure 5 · Triangulating vulnerability: four independent frameworks read together. Panel A: CEEW Climate Vulnerability Index (report year to be verified) and CEEW (2025). Panel C: NITI Aayog (2023). Panel D: Census of India (2011).

Lay the four lenses over one another and the apparent contradictions resolve into a single, sobering geography. The mid-table index and the high-hazard map are describing the same state from different altitudes; the poverty progress and the poverty remainder are counting the same villages; the demographic scale is the multiplier under all of it. The tangible impacts are already legible: eastern floodplain villages that rebuild a little less each time the river comes; Bundelkhand fields sown twice and lost twice in a single year, and the buses that leave fuller after each loss; brick-kiln and farm workers labouring through summers their bodies were never asked to survive before; and women managing all of it with the thinnest claim on the resources it requires. **Vulnerability in Uttar Pradesh is not a score. It is an address — and there are more addresses here than anywhere else in India.**

FIVE

The Need for Landscape Assessment

Uttar Pradesh is a river-built tapestry of nine agro-ecologies, stretched between a flooding east and a thirsting south, facing a double-fronted crisis of water and heat. The lens that should catch this is missing from the very plans that decide what gets built and grown there. The hurdles are systemic: adaptation norms too coarse for a state this varied, science that measures without asking, and services stretched across the largest exposed population in the country. And the evidence, triangulated across four independent frameworks, resolves its own apparent contradictions only when read at finer resolution — which is itself the finding.

WHAT EVERY STRAND OF THE DIAGNOSIS CALLS FOR

A way for a village to read its own landscape as one interdependent, living system — its landform and water, its fields and forests, its wildlife, its built assets, its culture and memory, and the community institutions that hold it all — and to turn that reading into a shared, locally owned baseline that feeds directly into the formal plans the village already makes every year.

This is precisely what the Community-led Landscape Assessment offers. It does not arrive with answers; it arrives with questions, and it begins where the double disconnection began — with memory. It treats the flood-marks on a wall and the year a well failed not as anecdote but as data: the earliest, finest-grained warning system a river state possesses. And because its outputs slot into the village's existing planning cycle, it converts that seeing into collective climate action calibrated to the place itself — drainage where the village floods, recharge where it thirsts, and livelihoods that can survive both.

The chapters that follow tell the story of what happened when this tool was carried into villages of Uttar Pradesh — from the flood-visited plains of the east to the hard country of Bundelkhand — and what those villages, reading themselves whole for the first time, discovered about the state of their own vital signs. In the most populous and most internally varied state in India, we will argue, such village-scale, community-led assessment is not a supplement to adaptation planning. **It is the only resolution at which adaptation can actually meet the people who need it.**

05

Uttar Pradesh - State summary

"Twenty years ago there were three wells in the village for drinking water, and six or seven taps too. Now only two wells remain — the water table is low, the water is stony."

ELDER, HYDROLOGY GROUP, REHUNCHI

AUTHORS

Anveshi Gupta · Ashok Kumar · Neeraja Kudrimoti

ONE

The Villages Speak First

“Once the village had a great pond and fifteen to twenty smaller ones, and wells from which the women drew water. Now the ponds have shrunk and turned foul, the wells are filled in, and house after house has its own handpump, borewell and motor.”

ELDERLY GROUP, GANGAURI, BASTI

Landscape Element	20 Years Ago	Today
Diet & Health	Mahua, jowar, millet; taller stature; no diabetes	Wheat, chemical rice; height loss; widespread chronic illness
Water Supply	3 clean wells + 7 functional taps	2 low, "stony" wells remaining
Biodiversity	Abundant vultures (Gidh), songbirds (Neelkanth)	Key species extinct; lost agricultural songs (Kajri-Alha)
Agriculture	Natural pollination by insects	Forced hand-pollination by farmers

Voices of Village

- On Soil & Ecology: *"In Belhat, even the smell of the soil has changed."*
- On the Future: *"There is nothing to do here — either farm, or leave the village."* — Youth, Ranjit Gadhi

And yet these are not despairing communities. They are, by their own account, communities that have gained enormously — and know exactly what the gains cost. **Bailha** (Lakhimpur Kheri) celebrates something few climate reports record: caste discrimination, once enforced even in temples and shared seating, has visibly reduced — people of all communities now sit, eat and live mixed together — while wages rose from ₹50–60 a day to ₹500. **Singha Kala** remembers when a single cooking fire could burn a whole thatched neighbourhood, and when going to the fields at night meant snakes and scorpions — the pucca house and the toilet are named as *safety*, not vanity. **Karapithiya** (Basti) speaks with open pride of its filled roads, its inter college, its twelve community-run enterprises. And **Pakhodna** (Aligarh) offered the pilot's most modern diagnosis: asked what most loosened the village's social fabric, elders, women and youth alike named — the smartphone.

THE DEEPEST FINDING

Rural climate stress is systemic and cascading — when the pond goes, the well follows; when the orchard goes, the bird follows; when the grain goes, the body follows — and the people who see the whole cascade first are the people living inside it.

TWO

The Landscape: Where These Villages Sit

Five belts of one state — from the water-rich Terai under the Himalayan foothills to the drought-scarred granite country of Bundelkhand.

The pilot spans a far wider ecological range than a single label can hold.

Here is a table to show,

BELT	DISTRICTS (BLOCKS)	VILLAGES	WHAT THE LAND IS LIKE
The Terai — Saryu influence zone	Lakhimpur Kheri (Nighasan)	Bailha, Singha Kala	Fertile alluvial plain under the foothills; canal and tube-well irrigation; sugarcane-wheat-paddy-banana; the pilot's most water-secure villages — and its clearest voice on what chemical farming does to crop health.
The Doab & western plain — Yamuna–Ganga country	Aligarh (Tappal)	Pakhodna, Ranjit Gadhi	Productive Gangetic loam on the Kali Nadi catchment edge, now in the shadow of the rising Jewar International Airport — land speculation, stubble smoke and a 100%- private-submersible irrigation economy.
The Awadh plain — Gomti reach and the Awadh–Purvanchal seam	Sultanpur (Dubepur); Basti (Bankati, Banka)	Emiliya Khurd, Bandhua Kalan; Karapithiya, Gangauri	Alluvial smallholder country of ponds, orchard belts (imli-aam-mahua) and mixed grain — now paddy-wheat-sugarcane under tubewells, with one artisanal outlier (Bandhua Kalan's jewellery, bangle and copper-brass economy).
The Vindhyan edge — Belan river terraces	Prayagraj (Koraon)	Devghat, Belhat	Rocky-hilly slope meeting the plain; forest fallen from ~2,500 to ~400 bigha in Devghat (~84% loss, community-reported); groundwater 60–150 ft in some hamlets and a reported 300–600 ft in Belhat's hardest; home to the Koldihwa site — among the earliest documented evidence of rice cultivation in the subcontinent.
Bundelkhand — the semi-arid heart	Hamirpur (Muskara); Banda (Naraini)	Alragoura; Pathra, Rehunchi	Black cotton soil (kali mitti) that cracks open in summer; one uncertain monsoon; the pilot's steepest water declines and heaviest out-migration (70–80%+ of households in the Banda villages, community-reported).

The wider pattern, read carefully

Two features distinguish the UP pilot's climate story. First, **the state's diversity is the finding**: the same twenty-year modernisation produced water-*mixed* outcomes in the Terai, a submersible-driven "deepening of water" (*jal ki gehraai*, Pakhodna's own phrase) in the Doab and Awadh, and outright hydrological emergency in Bundelkhand and the Vindhyan hamlets. Climate stress in UP is not one story; it is one *mechanism* — extraction outrunning recharge as the rainfed calendar breaks — expressed at five different speeds.

Second, the community accounts are directionally consistent with the tehsil-level research used in this project: a monsoon that keeps its volume less reliably than its schedule, more short intense events, and hazard patterns that can swap within a district. District-level vulnerability values for these seven districts should be read directly from the CEEW reports before citation; they are not, quoted here. Forward projections at village scale cannot be verified — but none of the thirteen communities asked for a projection. Their question is why the plans made in their name do not yet treat the landscape as one connected system.

TWO ·

What the Communities Report the Climate Has Already Done

All figures below are community-reported approximations from participatory recall — they should be verified against IMD rainfall records and CGWB groundwater data before being used as data. Their consistency across seven districts is, however, itself a finding.

600

GROUNDWATER DEPTH, FEET BELOW GROUND — AS RECALLED, THEN AS REPORTED TODAY

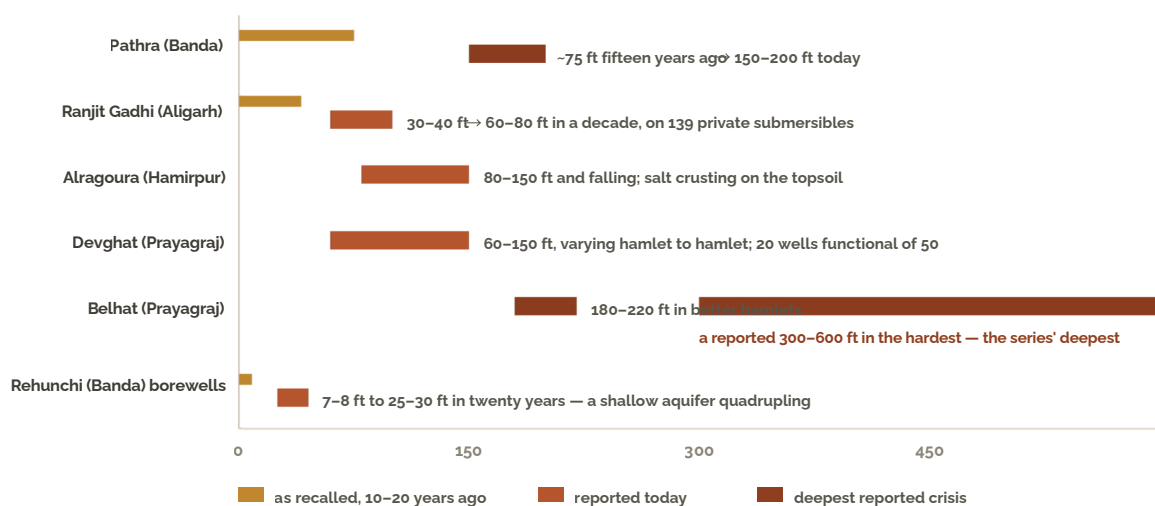


Figure 6 · The depth race, village by village. Community-reported approximations from participatory recall — verify against CGWB data before citation. Note that the Belhat range is reported inconsistently in the source (60-150 ft in one table, 180-220 ft in another); both are shown as the source gives them.

SIGNAL	WHAT COMMUNITIES REPORT	WHERE
The monsoon arriving late	Monsoon arrival shifted by about fifteen days; the rainfed calendar broken — “when rain does not come on time, farming does not happen”	Alragour a (Hamirpur); Emiliya Khurd (Sultanpur)
Rain at the wrong moments	Unseasonal October rain disrupting festivals and harvest (the Oct 2025 Chhath event); hailstorm (Olavrishti) every 2–3 years and a November locust (Haritiddi) cycle; last year’s flood prompting a DRR demand	Belhat, Devghat (Prayagraj); Ranjit Gadhi (Aligarh)
Heat extremes	Summers reported approaching 47°C; heatwaves “almost every year”	Pakhodna (Aligarh); Karapithiya (Basti)
Surface water disappearing	Ponds from 18 → 6 (Bandhua Kalan); a great tank plus 15– 20 ponds silted, buried or lost (Gangauri); the village’s only pond farmed over until none remains (Karapithiya); the central Talab silted and encroached, four communitywells dry (Pakhodna); the Run Nadi fallen from ~2 m to ~0.5 m and the seasonal pond dry even in the rains (Rehunchi); the Bagh Nadi dry in summer (Pathra)	Sultanpur; Basti; Aligarh; Banda
A river turned drain	The Belan — once clean enough for Mahashivratri puja — receiving household nali discharge since around 2012	Devghat (Prayagraj)

Source note. Compiled from the thirteen community assessments, April–May 2026. All values are participatory recall, not instrument records.

THREE

Trends Across the Eight Life-Elements

One red line, two half-truths.

Uttar Pradesh’s thirteen villages return something subtler — and in some ways more sobering. Compiled from the thirteen community-scored trend tables:

VILLAGES REPORTING DECLINE, OF THIRTEEN

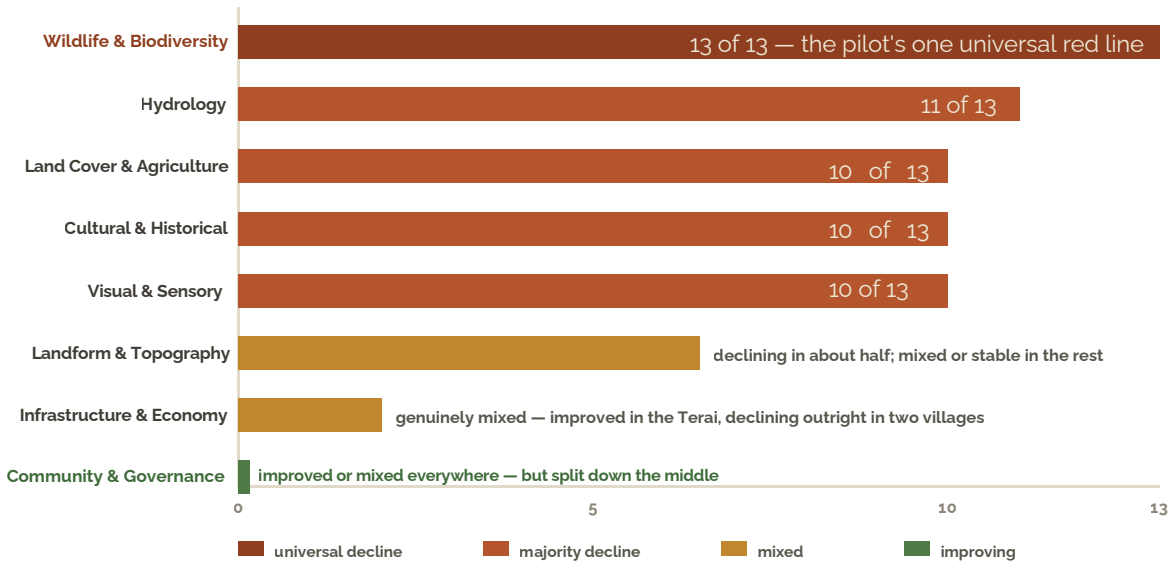


Figure 7 · The state-wide reading across the eight *Jeevan Tatva*, compiled from thirteen community-scored trend tables. Where the source gives a qualitative reading rather than a count (“about half”, “genuinely mixed”), the bar is drawn to that description and labelled in words rather than assigned a number.

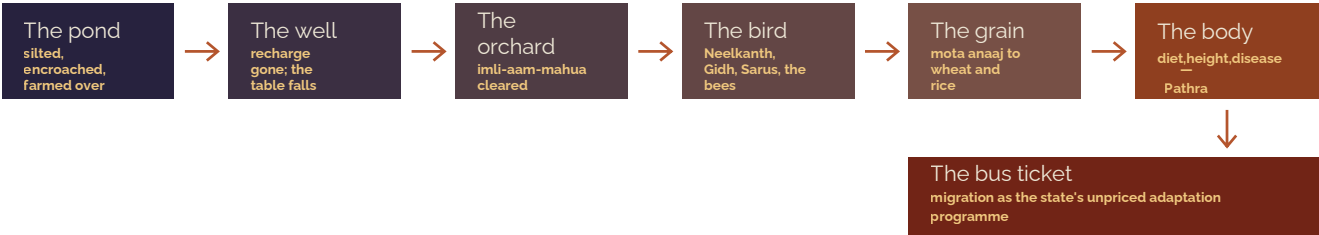
LIFE-ELEMENT	STATE-WIDE READING	WHY IT IS MOVING THIS WAY
Landform & Topography	▼ Declining in about half; mixed/stable in the rest	The plain itself endures; its micro-geography does not. Teelas (hillocks) levelled for cultivation and housing (Emiliya Khurd); khal — natural drainage channels — swallowed by fields and sealed under RCC roads (Gangauri); rocky pathar levelled into farmland (Belhat, where cultivated area roughly doubled); slope quarrying and tractor-levelling removing micro-drainage (Devghat). The land is being smoothed of the very features that once routed and held its water.
Hydrology	▼ Declining in 11 of 13 — sharply in Bundelkhand and parts of Awadh; mixed only in the Terai	The signature UP paradox is the <i>private</i> solution to a <i>common</i> decline: 100% private-submersible irrigation in Pakhodna, 139 private machines in Ranjit Gadhi, 45 private tubewells against one government machine in Bandhua Kalan. Each machine is individually rational; collectively they are the “deepening of water.” Ponds meanwhile were silted, encroached or simply farmed over — Karapithiya no longer has one at all.
Land Cover & Agriculture	▼ Declining in 10 of 13	The same arc in five dialects: mixed grain — kodo, sawa, mejhuma, tisi, mahua, jowar, bajra — narrowed to wheat- paddy-sugarcane-mustard-potato; bullock, dhekuli and bedi replaced by tractor and motor; <i>angrezi dawaayein</i> (chemical inputs) adopted partly because migration created labour scarcity (Gangauri’s own explanation); and the soil turning into what villagers across the state call <i>zameen banjar</i> — barren earth, salt-crusts in Alragoura, earthworm-empty in Pakhodna and Alragoura both.
Wildlife & Biodiversity	▼ Declined in all 13 — the pilot’s one universal red line	The communities name the missing like a census: vulture, Neelkanth and Saale (Emiliya); giddha, jatayu, hiran, bater and the bees (Devghat); sparrow, koyal, jugnu and the kenchua — the earthworm itself (Alragoura); otter, fox and jackal (Gangauri); the Sarus crane down to 2–3 sightings a year (Belhat). Into the predator gap: nilgai and wild boar, now raiding fields state-wide. Ranjit Gadhi’s hand-pollinating farmers are the endpoint made visible.
Infrastructure & Economy	Genuinely mixed — improved in the Terai, declining outright in two villages	Roads, taps, schools, electrification and mobile networks are real and celebrated. But UP’s charts refuse the simple “up” reading: services rose while <i>livelihoods</i> thinned — Pathra’s score reads “↑ services / ↓ livelihoods”; Emiliya Khurd’s infrastructure register declined outright; Bandhua Kalan’s veterinary clinic was converted into the Panchayat Bhawan; and wage gains (₹50–60 → ₹500 in Bailha) arrived with cost rises that outpaced many households. Migration is the shock absorber: ~40% of households in Karapithiya, ~60% in Devghat, 70–80%+ in the Banda villages send members out.
Cultural & Historical	▼ Declining in 10 of 13 — with two heritage-rich exceptions	The Kajri-Alha at Panchami has stopped (Emiliya); the Sohar-Kajri-biāh wedding songs are falling silent (Bandhua Kalan); Nautanki, Hurdanga, Chamarauwa and Videshiya give way to the DJ (Karapithiya); the Hukka circle and Chaupal survive with 2–3 elders (Ranjit Gadhi); the joint family splinters. Yet Belhat’s 400-year Kushti/Dangal still draws cross-state crowds, and Devghat’s Mela calendar still gathers the whole panchayat — culture is declining as <i>practice</i> while surviving as <i>asset</i> .
Visual & Sensory	▼ Declining in 10 of 13	Field-boundary tree lines vanished (Ranjit Gadhi); October– November stubble smoke as the new season-marker (Aligarh); the Belan odorous where it was once holy (Devghat); birdsong and water-song replaced by pump and rotavator; the soil’s own smell changed (Belhat); grain that elders describe as once <i>shuddh</i> — pure (Devghat).

LIFE-ELEMENT	STATE-WIDE READING	WHY IT IS MOVING THIS WAY
Community & Governance	▲ Improved or mixed everywhere — but split down the middle	UP's most distinctive finding: the formal institutions are rising while the informal ones thin. Roughly 280+ SHGs across the villages with stated counts (54 in Bandhua Kalan, 48 in Bailha, 43 in Devghat federated under CLFs), women's voice growing (51% of chart-group voice in Rehunchi — the series' highest), a ghunghat barrier visibly cleared in the Koraon villages. And yet: the Khuli Baithak draws fewer (Pakhodna), community organisation is "weakening" in Emiliya's own words, court cases replace the village bench (Devghat), and the smartphone is named as the solvent. The SHG network is the state's engine of repair; the Chaupal it would need to steer through is itself on the endangered list.

The cascade the villages describe

The communities narrate these not as eight problems but as one chain — with a distinctly UP ending in the body and the bus ticket. Emiliya Khurd's charts spell out the failure sequence in their own words: drinking-water shortage → farming destroyed → birds and animals dying → plants withering. Rehunchi names the terminus: an *"outsourcing of daily life"* — 70% of households preferring bought outside food, 80%+ of working-age people gone to the cities.

ONE CHAIN, NOT EIGHT PROBLEMS



AND THE CHAIN RUNS BACKWARD TOO

Out-migration → labour scarcity → weedicide and chemicals → *zameen banjar* → deeper distress → more migration

Gangauri's own causal chain — the pilot's clearest statement that the labour market and the soil are one system. Any organic transition plan that ignores where the hands went will fail.

Figure 8 · The cascade, as the thirteen communities describe it — and its reverse.

SURFACE WATER LOST — AS THE COMMUNITIES COUNT IT

Bandhua Kalan	18 ponds	→ 6	
Gangauri	1 great tank + 15–20 ponds	→ silted, buried or lost	
Karapithiya	1 pond	→ none at all — farmed over	
Devghat	50 community wells	→ 20 functional	
Rehunchi	3 wells	→ 2, both stony	· Run Nadi –2 m → –0.5m-28 taps standing, supply failing
Pakhodna	4 community Kuas	→ dry or debris-filled	· the Talabsilted and encroached

Figure 9 · The surface-water ledger. Community-reported counts from participatory recall.

The Core Demands

Water restoration — the pond, tank or well — is the first-ranked demand in the large majority of the thirteen villages.

The UP plans convert each village's findings into tiered works feeding two instruments: the **Community Action Plan (CAP)** — what the Gram Sabha adopts and does itself — and the **Departmental Action Plan (DAP)** — the named convergence asks. Read across thirteen villages, the demands sort into a strikingly consistent core, with a fringe of remarkable one-village asks.

#	DEMAND	THE PATTERN, WITH VILLAGE EXAMPLES
1	Restore the ponds, tanks and wells (<i>talab ki khudai</i>)	Near-universal and almost always first: Bandhua Kalan wants its ponds back "toward the remembered 18"; Gangauri its 15–20 ponds and great tank; Pakhodna its silted Talab and four dry Kuas; Belhat and Devghat their well networks (23 and 20 survivors); Karapithiya asks for a pond to be re-excavated where none now exists — and is ready to farm fish in it.
2	Recharge the ground and discipline the machines	Soak pits, rooftop harvesting on public buildings, recharge pits — paired with the harder ask: register, meter or space the private submersibles (Pakhodna's flagship; Gangauri's "borewell-expansion regulation"; Alragoura and Belhat recharge architecture).
3	Return to organic / natural farming (<i>jaivik</i>, <i>Prakritik Kheti</i>, <i>desi khaad</i>)	All thirteen.
4	Plant the trees back — orchard belts, bunds, lanes, commons	All thirteen, with species named from memory: imli-aam-mahua (Emiliya's signature belt), neem-jamun-desi mango (Pakhodna), mahua-jamun-barhar-imli (Gangauri), Neem-Mango-Peepal-Banyan (Karapithiya).
5	Bring back the lost grains (<i>mota anaaj</i>) with seed banks	Kodo, sawa, mejhuma, jowar, bajra and the pulses revived through community seed banks with elder custodians — Pathra and Rehunchi frame it explicitly as a diet–body–disease reclaim ; Gangauri, Karapithiya and Ranjit Gadhi tie it to SHG milling and processing.
6	End the burning — parali and residue value chains	Zero-burning norms and pledges (Pakhodna's Gram Sabha resolution; Ranjit Gadhi's farmer-group pledge; Bailha and Alragoura residue-to-fodder), paired with enterprises that make the straw worth more unburned.
7	SHG-led green enterprise to slow migration	Everywhere, on the state's ~280+ SHG base: vermicompost and bio-input units, nurseries, processing, dairy and goat enterprise, youth skilling (CM Yuva Udyami, RSETI, DDU-GKY) — with migration mitigation named as the explicit objective.
8	Livestock revival and veterinary care	Rebuild the herd and the gobar economy — with Bandhua Kalan's first and sharpest demand setting the tone: restore the veterinary function its converted clinic displaced.
9	Solar and clean energy	Solar pumps and lift irrigation against both the falling table and the 4–8-hour daily electricity ceiling (Pathra, Rehunchi); solar on schools, Panchayat Bhawans and water tanks (Karapithiya, Belhat, Bandhua Kalan); LPG/Ujjwala and improved chulhas to cut the fuelwood draw that fells the trees (Emiliya, Devghat, Belhat).
10	Revive the culture — as a named, planned demand	Not nostalgia but line items: stage the Nautanki and Videshiya (Karapithiya); revive Kajri-Alha at Panchami (Emiliya — with a five-year Sankalp); bring back Sohar-Kajri at weddings (Bandhua Kalan); rebuild the Chaupal and Khuli Baithak as <i>governance venues</i> (Pakhodna, Ranjit Gadhi); document elders' seed, song and jadi-buti knowledge before it is lost.

FOUR ·

The Ten Most Unique Demands — Signals Worth Probing

#	UNIQUE DEMAND	VILLAGE	WHY IT DESERVES PROBING
1	Restore the veterinary sub-centre — the clinic was converted into the Panchayat Bhawan	Bandhua Kalan	The pilot's sharpest single grievance: one building conversion quietly disabled a whole livestock economy. A cautionary tale about infrastructure accounting.
2	Settle the forest-land compensation on the ~700–800 bighas the Van Vibhag replanted	Pathra	The series' only <i>upward</i> ecological trend — bought at an unresolved economic and procedural cost to the very community now asked to protect it.
3	Protect farmland from airport-driven speculation	Ranjit Gadhi	With Jewar rising, the community estimates 8–12% of farmland converted or earmarked in a decade — and asks for a land register and Gram Sabha deliberation to slow it.
4	A Community Conserved Area for the migratory “Kashmiri Chidiya” — with the Sarus crane's return as a five-year indicator	Belhat	50–100 wintering birds the village affectionately calls <i>Ram Pyari</i> as a conservation and eco-tourism asset; species-return adopted as a public success metric.
5	Activate the Koldihwa rice-heritage site	Devghat	Among the earliest documented evidence of rice cultivation in the subcontinent sits unmarked in the panchayat — no signage, no livelihood. Heritage as an unclaimed climate asset.
6	Link the ponds to the Maudha Dam canal — and repair the damaged 2–3 km canal route	Alragoura	The community's own named #1 engineering intervention: treat surface water as a serious alternative to ever-deeper borewells.
7	Cross-border UP–MP convergence	Rehunchi	A village bordered by Madhya Pradesh on three sides asks for dual-state SHG networks, joint riparian restoration of the Run Nadi and inter-state scheme coordination — turning a boundary into an asset.
8	Battery vehicles for internal mobility	Emiliya Khurd	A small Awadh village's own forward-looking air-quality ask — paired in Karapithiya with an e-rickshaw youth enterprise on the good-road base.
9	Reinstate the khal — with culverts under the RCC roads	Gangauri	The community identifies that its drainage geography was engineered away by fields and concrete, and asks for it back as designed infrastructure.
10	Measurable Sankalp indicators and Landscape Committees	Emiliya Khurd, Bandhua Kalan (and echoed elsewhere)	Five-year public commitments with species and culture as the metrics — the return of the Neelkanth, the revival of Kajri-Alha, ponds back “toward the remembered 18” — governance innovation the whole state could borrow.

FOUR ·

The “Why”: What Has Stopped Them So Far

The rainfed calendar broke first, and the tubewell filled the gap

Once “*when rain does not come on time, farming does not happen*” (Emiliya), every household’s private submersible became individually rational — and collectively ruinous. No village authority currently has the mandate to meter, space or discipline private machines; Pakhodna’s flagship demand is precisely to create one.

Organic farming lost its raw materials and its labour

The gobar base collapsed with the herds (grazing land shrank; the vet clinic closed in Bandhua Kalan; animal husbandry “collapsed” in Emiliya’s account), and — Gangauri’s crucial insight — **chemicals and weedicide were adopted because out-migration created labour scarcity**. Organic methods need hands the villages no longer have; migration is both cause and consequence of the chemical turn.

The lost grains lost their infrastructure

Mota anaaj has no local chakki (milling), no seed stock outside elders’ memory, and — in Rehunchi — a demand-side wall: 70% of households now *prefer* bought outside food. Reviving millets means rebuilding a full chain: seed bank → field → mill → kitchen → market.

Electricity rations the water race

A 4–6 or 6–8 hour daily supply (Rehunchi, Pathra) makes solar pumps irresistible — and, without water budgeting, solar simply makes deeper extraction cheaper. The communities themselves pair the solar ask with drip, sprinkler and low-water cropping.

Trust deficits stall the willing

Pathra’s unsettled plantation compensation, Belhat’s Census-versus-field population discrepancy, Emiliya’s missing village profile — where the data or the dues are unresolved, communities hesitate to invest labour in assets they may not be credited for.

The institutions that would carry the work are themselves the casualty

The Chaupal is down to a handful of elders; the Khuli Baithak thins; the smartphone (Pakhodna’s own diagnosis) pulls attention out of the village square. The SHG platform is strong — but its mandate is credit and enterprise, not yet water, soil and forest.

FIVE

The Financial Narrative: Bridging the Gaps

The finance story is the space between the two documents every village plan produces.

Every village plan splits its works between what the community adopts into its **Community Action Plan** at no external cost, and what it forwards — by scheme name — into the **Departmental Action Plan** for convergence.

CHANNEL	WHAT IT FUNDS IN THESE VILLAGES	THE CATCH
MGNREGA	The universal engine: pond deepening (<i>talab ki khudai</i>), recharge pits, plantation, bund stabilisation, drainage, canal-feeder works	Builds assets faster than it maintains them; the 28 government taps of Rehunchi stand while the supply behind them weakens
Mission Amrit Sarovar / PMKSY-Watershed / Atal Bhujal / Jal Jeevan Mission	Pond re-excavation, watershed treatment, groundwater discipline, piped supply	Delivers water <i>works</i> ; the demand-management half (metering submersibles, water budgeting) has no established village mandate yet
DAY-NRLM (UPSRLM)	The ~280+-SHG network's enterprises — vermicompost, nurseries, dairy and goat, millet processing, metalcraft, leaf-plates, fisheries	Finances enterprise readily; finances <i>ecological restoration as enterprise</i> only where a plan connects the two — which is precisely what these GPDPs do
PM-KUSUM & MNRE solar / Ujjwala 2.0 / GOBARdhan biogas	Solar pumps and rooftops, LPG, biogas on the dung base	The pilot's sharpest double edge: solar pumping without water budgeting subsidises deeper extraction; the plans repeatedly pair the two
RKVY / Shree Anna (millet mission) / PKVY- NMNF / Soil Health Card / PMKSY- Per Drop More Crop	Millet revival, natural-farming clusters, soil testing, micro-irrigation	Transition finance for the lean first organic seasons remains the thinnest link
CM Yuva Udyami / RSETI / DDU-GKY / PMKVY / PMFME- ODOF	Youth skilling, e-rickshaw and micro- enterprise, artisan-cluster upgrades (Bandhua Kalan's metalcraft and bangles)	The artisan economy fits awkwardly in "green" finance boxes — yet it is Bandhua Kalan's actual livelihood base
CAMPA / Green India Mission / State afforestation / PWD- NHAI compensatory plantation	Forest-patch restoration, orchard-belt blocks, iron-fenced plantation, roadside replanting	Compensatory obligations lag: Rehunchi reports 70–80% of road-corridor trees felled without replacement; Pathra's plantation compensation is unsettled
NHM / NSAP / SC Sub-Plan / PMFBY / SDMA / DLSA	Health outreach where sub-centres are absent, scheme saturation for widow-, PwD- and BPL- households, crop insurance, DRR plans, legal-aid camps	Equity-first infrastructure (Badhghat's electricity, Baansghaat's water in Devghat; Belhat's 580+ Kol families) depends on convergence nobody owns by default

Source note. All scheme mappings are indicative, as the source plans themselves state — guidelines, ceilings and eligibility change over time and by district, and must be verified with block and district administration.

FIVE

Where It Falls Short — The Five Gaps

Gap 1 — The maintenance gap

Rehunchi's 28 standing taps with failing supply are the UP emblem: capital creates assets; nothing recurring keeps them alive. The plans respond with maintenance calendars and network-repair framings (Belhat's 23 wells "as one network").

Gap 2 — The demand-management gap

Money flows readily to *supply* (ponds, pipes, pumps) and hardly at all to *restraint* (metering, spacing, budgeting the aquifer). Pakhodna's submersible-regulation flagship is, in financial terms, an ask for a kind of governance no current scheme prices.

Gap 3 — The transition gap

No mainstream channel bridges a household across the lean first seasons from chemical to natural farming, or from wheat back to mota anaaj without a mill or a market. The Koraon plans' answer — anchor transitions on hamlets that never left organic practice (Koldihwa, Nayi Basti) and on visible large-farmer demo plots (Belhat's Mahajan farmers) — is a way of lowering the risk the finance system won't underwrite.

Gap 4 — The compensation and trust gap

Pathra's unsettled dues on the replanted 700–800 bighas, and the felled-but-never-replaced road corridors of Rehunchi, teach communities that ecological obligations owed to them go unpaid — an expensive lesson to unteach when their own labour is next requested.

Gap 5 — The household squeeze

Bailha's arithmetic — wages up from ₹50–60 to ₹500, costs risen faster — plus input debt, bought food (70% preference in Rehunchi), private water infrastructure and festival inflation: climate stress is already a monthly line item, and the coping finance is the bus ticket. **Migration is the state's unpriced adaptation programme.**

MIGRATION — HOUSEHOLDS OR WORKING-AGE PEOPLE SENDING MEMBERS OUT

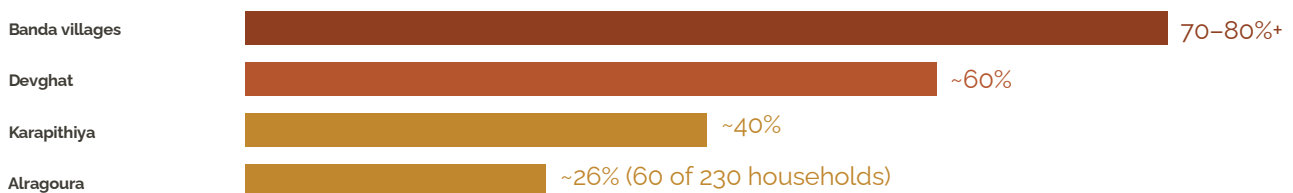


Figure 11 · Where the coping finance goes. Community-reported shares.

THE REFRAME THE CAP-DAP STRUCTURE OFFERS

The quiet radicalism of these plans is that Tier 1 is free. Every village's first column — shramdaan desilting, no-burn resolutions, seed banks from elders' stores, two trees per household, bird censuses run by schoolchildren, women-only pre-meetings before the Gram Sabha — needs no sanction letter. The CAP makes the community the first financier of its own resilience; the DAP then turns the remainder from grievance into a named, scheme-mapped, department-addressed ask.

SIX

Green Stories & Green Value Chains

"The Village That Measures Loss in Inches"

PATHRA, BANDA

A community that read its decline in its children's height now leads the reclaim through *mota anaaji*: a seed bank under elder custodians, chakki milling revived, coarse grains back on the plate — nutrition, water-thrift and identity in one intervention.

"Ram Pyari's Winter Address"

BELHAT, PRAYAGRAJ

Every winter, 50–100 migratory birds the village calls *Ram Pyari* settle on its two ponds. The community proposes a Community Conserved Area around them — with the Sarus crane's return as its public five-year indicator.

"Where Rice Was First Grown, Farming Begins Again"

DEVGHAT, PRAYAGRAJ

Beside the Koldihwa site — among the earliest documented evidence of rice cultivation in the subcontinent — two hamlets that never abandoned vermicompost farming become the demonstration anchor for the panchayat's natural-farming transition.

"Seven Hundred Bighas Return — at a Price"

PATHRA, BANDA

The series' only upward ecological trend: Van Vibhag plantation has brought ~700–800 bighas back under forest — on land whose compensation is still unsettled. Restoration and justice, the village insists, must be financed together.

"The Khal Remembers"

GANGAURI, BASTI

A village asks engineers to reinstate the natural drainage channels its own fields and roads erased — with culverts under the concrete, so the rain can find its old ways home.

"Two Trees, Every House, This Monsoon"

RANJIT

GADHI, ALIGARH

A whole-village pledge to rebuild the vanished field-boundary tree lines — neem, ber, mahua, peepal, imli — one bund at a time.

DISTRIBUTED RENEWABLE ENERGY

"Sunlight Against the Depth Race"

PATHRA &

Solar pumps and Run Nadi lift irrigation to beat both the falling table and a 4–8-hour electricity day — deliberately paired with drip, sprinkler and low-water crops so the sun doesn't simply drill deeper.

"The Village That Asked for Battery Vehicles"

EMILIYA KHURD

A small Awadh panchayat's own forward-looking ask: battery vehicles for internal mobility, solar rooftops on public buildings, cleaner air as a named priority.

"An E-Rickshaw on a Good Road"

KARAPITHIYA

Green mobility as youth enterprise, built on the village's proudest asset — its repaired roads and the twice-weekly market 200 metres away.

CIRCULAR ECONOMY

"Smoke Becomes Mushrooms"

RANJIT GADHI

Baled paddy straw as substrate for mushroom cultivation, fodder and mulch — the October smoke season converted into an SHG income line.

"Pellets from the Parali"

PAKHODNA

A youth-led biomass pelletization unit compressing residue into fuel — burning displaced by business, alongside the village's Compost Sthal scaling toward certified organic manure.

"The Leaf-Plate Comeback"

KARAPITHIYA &

BANDHUA KALAN

One village already runs a pattal-donā plant; the other proposes reviving leaf-plate production to replace bought crockery — biodegradable commensality as SHG enterprise.

"Brooms Against the Shock" & "Copper, Brass and a Second Life"

GANGAURI · BANDHUA KALAN

Gangauri's juda-banana (mop and broom) micro-industry — already absorbing agrarian distress — strengthened with aggregation and market access; and the heritage tāmbe-pītal and bangle clusters reorganised as a repair- and-remake craft economy.

VALUE CHAIN	WHERE IT RECURS	WHY IT ANCHORS THE PORTFOLIO
Vermicompost & bio-inputs (Jeevamrit, Beejamrit, neem pesticide)	Effectively all 13	Turns the organic demand into women's enterprise; substitutes purchased chemicals
Plantation, native nurseries & agroforestry	All 13	Orchard belts, bund trees and fodder silviculture; Emiliya proposes bulk sapling supply to neighbouring panchayats
Millet & pulse (mota anaaj) revival with SHG processing	8+ villages	Water-thrifty, culturally loved, Shree Anna-mission-ready; ties to Anganwadi and school feeding
Livestock, dairy & goat enterprise	Nearly all	Income plus the gobar base organic farming needs; Rehunchi's retained indigenous breeds a genuine strength
Pond fisheries in restored waters	Most	Income designed to arrive only when restoration succeeds
Crop-residue value chains (compost, fodder, mulch, pellets, mushroom)	Aligarh, Terai, Awadh villages	Makes the no-burn norm pay
Solar irrigation & rooftops	Most	Cost and emissions relief — always paired with water discipline in the plans
NTFP processing (mahua, tendu, chironji, gond, ber, imli)	Vindhyan & Bundelkhand villages	Re-monetises the standing and returning forest

MOST UNIQUE — ONE VILLAGE EACH

Metalcraft & bangle circular craft economy · Bandhua Kalan	Kushti heritage tourism · Belhat	
Koldihwa heritage eco-trail · Devghat	Migratory-bird eco-tourism · Belhat	Juda-banana micro-industry · Gangauri
E-rickshaw mobility enterprise · Karapithiya	Battery-vehicle cluster · Emiliya Khurd	
Banana & sugarcane value addition · Bailha	Biomass-to-power · Gangauri	
Cross-border SHG enterprise networks · Rehunchi		

SEVEN

What the Senses Know

Of the eight Jeevan Tatva, Visual and Sensory Experience declined in ten of the thirteen villages — and it is the theme where Uttar Pradesh's testimony is most exact. These communities did not describe climate change in millimetres of rainfall; they described it in the colour of a pond, the silence at Panchami, the taste of well water, the smell of a river, and — in Pathra's extraordinary account — the height of their own sons. **The sensory record is the community's continuously updated dataset, kept without instruments**, and the thirteen villages read from it with a precision the secondary data cannot match.

SENSE	WHAT HAS CHANGED	WHERE THE COMMUNITIES SAID IT
Sight	The field-boundary tree lines that once framed every plot have all but vanished; the teelas — the small hillocks that gave one village its geography — stand levelled; ponds have “shrunk and turned foul”; white salt crusts the black kali mitti; Parthenium and water hyacinth spread where native cover was; October–November stubble smoke is the new season-marker in the Doab sky; the Neelkanth and the Gidh are gone from the skyline.	Ranjit Gadhi (tree lines, smoke); Emiliya Khurd (teelas, skyline birds); Gangauri (foul ponds); Alragoura (salt crust, invasives); Pakhodna (smoke); Devghat, Belhat (the surviving sights)
Sound	The state's musical registry, falling silent by name: the Kajri-Alha no longer sung together at Panchami; the Sohar, Kajri and biāñ songs fading from weddings; Nautanki, Hurdanga, Chamarauwa and Videshiya giving way to the DJ and loudspeaker; the Haryanvi folk song displaced in the JAT villages; the koyal heard only occasionally; bird call and water-song replaced by the pump and the rotavator.	Emiliya Khurd; Bandhua Kalan; Karapithiya; Ranjit Gadhi; Alragoura; Devghat
Taste & the plate	Grain the elders describe as once <i>shuddh</i> — pure; the mahua-jowar-millet plate turned to wheat, gram and chemical-grown rice; well water that now comes up <i>stony</i> ; water whose taste differs house to house; a village that asks for water-quality testing “where taste changes”; and the endpoint — 70% of households in one village now preferring bought outside food.	Devghat; Pathra; Rehunchi; Belhat; Emiliya Khurd
Smell	The Belan — once clean enough for Mahashivratri puja — now odorous with household nali discharge; a blocked panchayat naali producing village-wide odour; the annual smoke of the parali season; and Belhat's quietly devastating observation: <i>the smell of the soil itself has changed</i> .	Devghat; Rehunchi; Aligarh villages; Belhat
Touch & heat	Summers reported approaching 47°C and heatwaves “almost every year” (community-reported figures — verify against IMD records); the kali mitti cracking open; and the farmer's oldest tactile indicator gone from the hand — the earthworm (kenchua, keechua) absent from soil in at least three villages' accounts.	Pakhodna; Karapithiya; Alragoura; Gangauri

The body keeps the record

Uttar Pradesh's communities carried the sensory account further into the body than any other part of the pilot. Pathra's elders link the diet shift from mota anaaj to chemical-grown staples with a fall in average male height — from a remembered five-to-six-foot norm to four to five-and-a-half feet — and with the arrival of diabetes, blood pressure and cancer, illnesses their generation "did not name." Singha Kala flags refrigerator- and machine-supplied water as harmful to health in its own charts. Bailha reports illness rising in step with pollution; Gangauri's prognosis names rising *bimari* and a fear of *mahamari* (epidemic); Karapithiya's recent memory holds a dengue outbreak and COVID-19 in a village with no health sub-centre.

A NOTE OF CARE

These are community-attributed links between environmental change and health — testimony, not clinical or anthropometric findings. The Pathra height account in particular is of extraordinary rhetorical force but is not a measurement, and it should not be quoted as data. The right response is the one the plans themselves route: NHM health outreach, screening and water-quality testing, treating the community's account as a serious signal for public-health verification.

Grief with a name — and its honest counterpoints

The word for what runs beneath this section is **solastalgia** (Albrecht, 2005) — distress caused by environmental change experienced while still at home. UP's version is distinctively cultural: the grief attaches as much to the *soundscape* as to the landscape. But no state in the pilot balances the ledger more honestly. Singha Kala remembers the chappar era, when one cooking fire could burn whole neighbourhoods, and the daily snake-and-scorpion threat of open defecation — the pucca house and the toilet are named as *safety and dignity*, especially for women. Bailha's proudest finding is social: caste discrimination visibly reduced, all communities now sitting and eating together. Karapithiya speaks of its filled roads with open pride. The senses have not only recorded loss; they have recorded liberation. **The honest UP synthesis is the one the communities themselves offer: the household's sensory world has improved while the landscape's sensory world has emptied.**

Why the senses belong in the plan

Here Uttar Pradesh is ahead of the argument — its plans have already institutionalised sensory monitoring. Emiliya Khurd's five-year **Sankalp** makes the return of the Neelkanth and the revival of Kajri-Alha its public success indicators; Belhat adopts the Sarus crane's return as a five-year metric and proposes an annual community bird count with the school and Anganwadi; Bandhua Kalan's Sankalp is ponds back "toward the remembered 18"; Karapithiya proposes a People's Biodiversity Register built from elders' species memory; women-led Jal Chaupals monitor water monthly. These are monitoring systems any village can run without an instrument or a budget — the bird on the wire, the song at the wedding, the taste at the tap. A landscape plan the whole village can *hear and see* succeeding is a plan the Gram Sabha can hold to account.

EIGHT

A Tiered Action Plan for the State's Top Five Demands

Assembled from the thirteen CAP–DAP plans, organised by what each action needs to begin.

PRIORITY	A · NOW — COMMUNITIES CAN DO THIS THEMSELVES (SHRAMDAAN, SHG CAPACITY, GRAM SABHA NORMS — NO EXTERNAL FUNDS)	B · WITH A LITTLE SUPPORT (GP/15TH-FC & NRLM SEED FUNDS, MGNREGA LABOUR, LIGHT TECHNICAL GUIDANCE)	C · ONLY WITH SIGNIFICANT EXTERNAL SUPPORT (SCHEME CONVERGENCE — INDICATIVE ROUTES)
1 · Water restoration & the machine question	Shramdaan desilting of ponds, tanks and surviving wells; household soak pits; pond-edge protection from dumping, encroachment and idol immersion; women-led Jal Chaupal monitoring; no-open-tap discipline	Mechanised pond de-silting and bund repair (MGNREGA + GP funds); rooftop harvesting on schools, Anganwadis and Panchayat Bhawans; drainage and waterlogging works; water-quality testing where taste changes	Pond and tank rejuvenation missions (Amrit Sarovar, PMKSY-Watershed, MGNREGA); khal reinstatement with culverts (Gangauri); the Maudha Dam canal repair and pond linkage (Alragoura); submersible registration and groundwater demand management (Atal Bhujal); Belan greywater diversion (Devghat); sustained O&M of standing infrastructure (Rehunchi's 28 nal)
2 · Soil & the organic transition	Revive gobar and desi khaad on willing plots; household and SHG composting; community seed banks with elder custodians; no-burn resolutions and pledges	Vermicompost and bio-input units (NRLM seed funds, ATMA/KVK); soil-health cards; demonstration plots — anchored on organic-surviving hamlets (Koldihwa, Nayi Basti) and visible large-farmer plots (Belhat)	Natural-farming clusters at scale with transition support (PKVY/NMNF); mota-anaaj value chains with milling, market and school-feeding linkage (Shree Anna/RKVY, ODOP, ICDS-POSHAN); integrated pest management (Singha Kala)
3 · Trees, forest & the biodiversity comeback	Two-trees-per-household pledges; SHG nurseries from local seed; Gram Sabha bans on cutting and hunting (Singha Kala's own five-point plan); sacred-grove and commons protection; school and Anganwadi bird censuses with species-return Sankalps (Neelkanth, Sarus)	Native nurseries as enterprise; iron-fenced plantation blocks; orchard-belt demonstration (imli-aam-mahua); riparian and pond-edge planting; buffer hedges against nilgai and wild boar	Silvopastoral and forest-patch restoration at scale (CAMPa, Green India Mission, MGNREGA); the migratory-bird Community Conserved Area (Belhat); compensatory roadside plantation and settlement of plantation-land dues (Pathra; PWD/NHAI, Forest, Revenue); structured nilgai/boar management per state guidelines
4 · Green livelihoods & migration mitigation	Pool production on existing enterprise bases (Karapithiya's ~12 enterprises, Gangauri's juda-banana); SHG induction of widow-, single-women and excluded households; youth committees and skill mapping	SHG enterprise upgrades — processing, dairy, nursery, metalcraft design and market linkage (NRLM-SVEP, RSETI, PMFME/ODOP); paddy-straw enterprises (mushroom, pellets); skilling for returnees	FPO formation (Karapithiya); artisan-cluster finance (Bandhua Kalan); heritage and eco-tourism activation (Koldihwa, Kushti, Ram Pyari — State Tourism, ASI/State Archaeology); e-rickshaw and battery-vehicle enterprises (MSME, MNRE); cross-border enterprise coordination (Rehunchi)
5 · Livestock, energy & the gobar economy	Stall-feeding and grazing norms; return dug to fields; herd care rotas; improved-chulha adoption where LPG is unreliable	Para-vet and mobile-vet arrangements (Bandhua Kalan's interim fix); dairy and goat aggregation via SHG–FPO; biogas where herd size supports it; fodder on bunds	Restore the veterinary sub-centre (Bandhua Kalan — Animal Husbandry/Gokul Mission); livestock insurance; solar pumps and rooftops paired with water budgeting (PM-KUSUM, MNRE); LPG saturation (Ujjwala 2.0); GOBARdhan biogas at cluster scale

THE GOVERNANCE INVENTION WORTH CARRYING EVERYWHERE

The through-line sits in the first column — but UP's plans add the measurable Sankalp. A village that commits, publicly and on a five-year clock, to the return of the Neelkanth, the revival of the Kajri-Alha, ponds back "toward the remembered 18," or the Sarus landing again beside the Ram Pyari, has done something no budget line can: it has made the landscape's recovery a promise the whole village can hear, see — and hold its plan accountable to.

5.9 A cross-village analysis for Uttar Pradesh

Gender and the Changing Landscape

In the thirteen Uttar Pradesh villages, the gender question begins with an absence. Men have left — for Noida, Delhi, Surat, Mumbai — in numbers large enough to reshape the village's demography, and the women who remain have become the de facto managers of land, water, livestock and fuel. Yet the institutions that govern those resources have not caught up with that fact: management has shifted to women while title, standing and entitlement largely have not. Meanwhile the water commons that once organised village life — shared ponds, wells that were also women's gathering places — has been replaced by privately owned depth, available to those who can afford a submersible. The Gender at Work framework allows these to be read together, across the individual-systemic and informal-formal axes, rather than as unrelated problems of migration, water and voice. The figure below places the LCAT's findings and community voices in each of the four arenas.

Uttar Pradesh

Where the LCAT gender findings sit across the four arenas of change: a feminised village, water re-made as commons, the ghunghat line — and the corrective that worked.

“
If this continues, women will achieve equal standing in every kind of work.

— Governance discussion, Belhat (Prayagraj)

Consciousness and capabilities

Women hold the village's agrarian memory and its water watch.

- Elder women are custodians of the seed collection — six local varieties lost in a decade in Ranjit Gadhi.
- Rehunchi: the smallest SHG base (9 groups) carried the highest female share of voice (51%).
- Women-led Jal Chaupals for monthly water monitoring — proposed in at least five village plans.

Access to resources

Access to secure water and entitlements stops tracking the private submersible.

- Pakhodna and Ranjit Gadhi independently find SC, landless and women-headed households excluded from secure water.
- Migrant-household women manage land and livestock without title, standing or entitlements.
- Taps are a real gain — restore ponds, wells and canals so relief is common, not private.

“
Earlier women had to walk far to fetch water; now we have taps in the home — but cultural togetherness was greater before.

— Community discussion, Singha Kala (Lakhimpur Kheri)

“
Most decisions are still taken by men and elders — women are consulted mainly on household and minor matters. The change has begun, but it is not yet complete.

— Governance discussion, Alragoura (Hamirpur)

Social norms and deep structure

The ghunghat line divides membership from authority — and it can be crossed.

- Belhat & Sadar Devghat: agency built incrementally — women once silent now speak most articulately.
- Out-migration reshapes the village: Ranjit Gadhi counts 2,841 women to 1,894 men.
- Alragoura: ~80% of women are SHG members — yet most decisions rest with men and elders.

Policies and rules

Make the deliberation corrective structural — pre-meetings, reserved places, first access.

- Women-only sub-meetings before every Gram Sabha — proposed by three villages themselves.
- Reserved places for women in resolutions on water and commons; first-access rules for restored water.
- Carry SHG didis into formal decision roles; formalise elder women's seed custodianship.

“
Now we attend every meeting and speak our mind.

— SHG women, Ranjit Gadhi (Aligarh)



Systemic



About this figure. Quadrant statements synthesise the state gender narrative derived from the village Landscape Character Assessment reports; corner quotations are verbatim (English translations as given in the reports), attributed to the speaker or group context recorded there. Figures are as stated in the reports; several are community-reported approximations requiring primary-source verification before publication.

The four quadrants together describe a genuine shift and a conspicuous lag. The shift is real and, importantly, incremental rather than engineered: in Belhat and Sadar Devghat, women who once sat silent under ghunghat came over time to speak most articulately; girls in Bargaon now leave the village for higher education; roughly 280 self-help groups anchor collective life, and in Alragoura most women belong to one.

The lag is equally clear. Membership has outpaced authority — most decisions still rest with men and elders — and the women who actually run the fields hold neither the land's title nor a secure place in the Gram Sabha that allocates its water. Climate change sharpens every part of this. Rainfall is growing more erratic across these districts, groundwater is falling as private borewells replace the commons, and the 2026 cooking-fuel disruption showed how quickly a supply shock can send households back to fuelwood and re-lengthen women's working day.

Each of these lands first on the household that is already managing alone. Adaptation in Uttar Pradesh therefore cannot be designed for a village that has partly departed; it must be designed for the one that is actually present. That means recognising women as the managers they have become, restoring water as a commons rather than a private asset, and making the deliberative corrective structural — pre-meetings, reserved places, first access — so that agency continues to accumulate rather than stalling at the threshold of decision.

06

The Districts, *One by One*

Seven districts, each read whole—a snapshot, a spider of the eight life-elements, the key findings, the demands, and the tiered first moves. Three designed pages each.

01 Aligarh

02 Banda

03 Basti

04 Hamirpur

05 Lakhimpur Kheri

06 Prayagraj

06 Sultanpur

SECTION THREE · DISTRICT 01 OF 07

Aligarh

Two villages · Pakhodna & Ranjit Gadhi (Tappal block) · the Doab, in the shadow of Jewar

139

PRIVATE SUBMERSIBLES,
RANJIT GADHI

100%

OF IRRIGATION PRIVATE,
PAKHODNA

1.0/3

WILDLIFESCORE —
URGENT IN BOTH

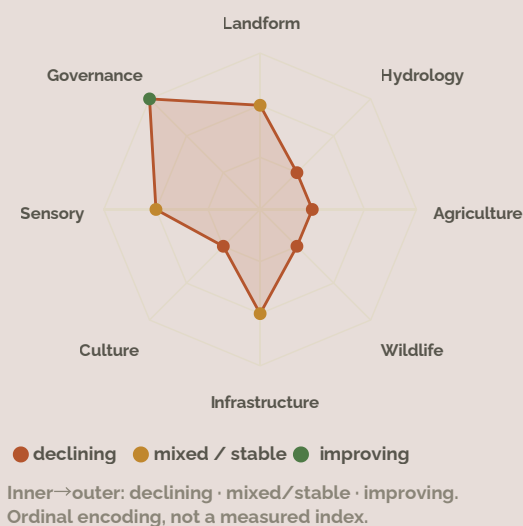
50/58%

COMPOSITE RESILIENCE

"There is nothing to do here — either farm, or leave the village."

YOUTH GROUP, RANJIT GADHI

THE EIGHT LIFE-ELEMENTS



ALIGARH'S DISTINCTIVE INSIGHT

Modernity is not arriving *to* this landscape; it is arriving *through* it — the airport, the smartphone, the submersible — and the communities have named each precisely, along with what each is costing them.

THE VILLAGES SPEAK FIRST

Pakhodna and Ranjit Gadhi sit on some of the most productive farmland in India — the Doab country between the Yamuna and the Ganga, on the catchment edge of the Kali Nadi — and they are the pilot's clearest look at what happens when a booming modern economy lands on a depleting rural water table. Less than a district away, the **Jewar International Airport** is rising, and Ranjit Gadhi can feel the pull: by the community's own estimate, 8–12% of its farmland has been converted or earmarked for non-farm use in a decade, and the young leave for Noida and Delhi — so steadily that the village now counts 2,841 women against 1,894 men, a female majority the report attributes to male out-migration (a figure the source itself flags for verification).

Pakhodna's story is told through its water fabric, rewritten in twenty years. The community's own phrase is *jal ki gehraai* — the deepening of water. The biological endpoint is the pilot's most startling detail: pollinator loss in Ranjit Gadhi has gone so far that **some cucurbit farmers now pollinate their crops by hand**.

COMMUNITY-REPORTED SIGNAL	VILLAGE
Groundwater halving in reach: ~30–40 ft a decade ago → 60–80 ft today, on 139 private submersibles	Ranjit Gadhi
A fully privatised water economy: 100% of irrigation on private submersibles; 4 community wells dry; the Talab silted and encroached	Pakhodna
Extreme heat: summers reported approaching 47°C; Yamuna-overflow Kharif years; winter potato frost	Pakhodna
Flood shock: last year's flood prompting field bunding and a GP-level DRR demand	Ranjit Gadhi
The smoke season: paddy-stubble burning filling the October–November sky — named as a defining seasonal marker	Both
Land conversion: ~8–12% of farmland converted or earmarked for non-farm use in a decade (community estimate)	Ranjit Gadhi

UNIQUE & WORTH PROBING	WHY IT DESERVES PROBING
Agricultural-land protection RANJIT GADHI	A GP resolution and community land register to slow airport-driven speculative conversion — a village asking to govern its own land market.
The two-trees pledge RANJIT GADHI	Every household plants a minimum of two native trees (neem, ber, mahua, peepal, imli) this monsoon; restoration as universal household duty.
The 30% natural-farming target PAKHODNA	A village that set itself a measurable transition goal before any department asked.
Eco- and heritage tourism beside the airport RANJIT GADHI	Restored-pond bird tourism and JAT heritage (Hukka circle, Chaupal, Haryanvi folk song) as income for elder artisans, positioned deliberately near Jewar's passenger flows.
The JAT cultural register RANJIT GADHI	Documenting Hukka protocols, Dhoti-Kurta-Pagdi, folk songs, mud-vessel craft and local seed names, elder men and SHG women co-leading.
Youth Committee under the GP RANJIT GADHI	Formalising the cohort most likely to leave as a governance constituency.

MONEY & THE GAPS

The characteristic gaps: **no scheme prices restraint** (submersible regulation is governance, not works); compensatory obligations for felled road-corridor trees lag; and the airport economy generates land windfalls that no current mechanism channels toward the landscape absorbing its costs.

THE SENSES' RECORD

The district's natural monitoring indicators: the first unassisted cucurbit set, a smoke-free November sky, water standing in the Talab, and a Chaupal with more than three voices.

GREEN STORIES

“Two Trees, Every House, This Monsoon”

RANJIT GADHI · NBS

The household pledge rebuilding the vanished field- boundary canopy — neem, ber, mahua, peepal, imli.

“The Compost Sthal”

PAKHODNA · CIRCULAR ECONOMY

The village's existing compost ground scaled toward certified organic manure, with neem-and-jamun leaf- extract bio-pesticide as the SHG product line.

“Sunlight Instead of Submersibles”

BOTH · DRE

Community-managed solar micro-irrigation cooperatives paired with low-water cropping — the plans' answer to the depth race.

“Heritage Beside the Runway”

RANJIT GADHI · CULTURE / LIVELIHOOD

Hukka-circle and Chaupal heritage, Haryanvi folk song and restored-pond birdlife positioned as tourism income in Jewar's shadow.

GREEN VALUE CHAINS

Solar micro-irrigation cooperatives

Vermicompost & bio-inputs

Paddy-straw chains — pellets, mushroom, fodder, mulch

Community seed banks — moong, bajra, millets, local vegetables

Agroforestry income on bunds

Household-plastics recycling (Pakhodna)

SHG agro-processing — paddy, mustard, vegetables

Eco- & heritage tourism (Ranjit Gadhi)

TIERED FIRST MOVES FOR ALIGARH

A · community alone	B · a little support	C · convergence
Shramdaan desilting of the Talab and the four community Kuas; zero-burn Gram Sabha resolution; the two-trees household pledge; a Youth Committee under the GP	Mechanised de-silting and bund repair; SHG vermicompost and bio-pesticide lines; straw baling for mushroom and fodder; rooftop harvesting on public buildings	Submersible registration and groundwater demand management (Atal Bhujal); the community land register against airport- driven conversion; solar micro-irrigation with water budgeting (PM-KUSUM); biomass pelletization at enterprise scale

SECTION FOUR · DISTRICT 02 OF 07

Reading Banda Whole

Two villages · Pathra & Rehunchi (Naraini block) · the Bundelkhand heart

150 –
200ftWATERTABLE, PATHRA —
FROM ~75 FT

80%+

WORKING-AGE
MIGRATION, REHUNCHI

700–800

BIGHAS REPLANTED,
PATHRA — DUES
UNSETTLED

51%

WOMEN'S SHARE OF
CHART VOICE, REHUNCHI
— THE HIGHEST

"Twenty years ago there were three wells in the village for drinking water, and six or seven taps too. Now only two wells remain — the water table is low, the water is stony."

ELDER, HYDROLOGY GROUP, REHUNCHI

THE EIGHT LIFE-ELEMENTS



BANDA'S DISTINCTIVE INSIGHT

The district shows both ends of the restoration bargain at once. Pathra proves trees *can* come back at scale — and that restoration without settled compensation corrodes the trust every future work will need. Rehunchi proves that the smallest institutional base can still carry the loudest female voice — and that a border can be an asset if convergence is designed for it.

THE VILLAGES SPEAK FIRST

Banda is where the pilot's cascade reaches the body. Pathra and Rehunchi hold the series' steepest reported water declines, its heaviest migration, and its most arresting testimony — a community that measures environmental change in the height of its men.

Pathra's Decadal Timeline is unsparing. Twenty years ago the wells supplied drinking and irrigation; the historical canal watered the fields; the Bagh Nadi flowed enough to drink from; the diet centred on mahua, jowar and millet; **the average male height, by the community's account, was five to six feet, and serious illness was rare.** Today the table stands at 150–200 feet; the canal is gone from cultivation; the Nadi runs dry in summer; **the community reports the average male height as four to five-and-a-half feet,** and diabetes, blood pressure and cancer are now common. Even the village's founding grove is a parable: the original *Patra Bagh* has been built over by a pucca temple and dharmshala.

There is one counter-trend: the **Van Vibhag has become active, and sagoun, sheesham, aam and amrud plantations have brought roughly 700–800 bighas back under forest** — the only upward ecological trend in the series. And the community framed it carefully: the plantation stands on land they once cultivated, **and compensation for that land has not been received.**

Rehunchi is the border village — Madhya Pradesh on three of its four sides. Borewell depths have gone from 7–8 feet twenty years ago to 25–30 feet today; the Run Nadi from about two metres to half a metre; 28 government taps stand while the supply behind them weakens yearly. Mota anaaj has fallen from the majority of cropping to 10–15%; 70% of households now prefer bought outside food; more than 80% of working-age people migrate — the community's own name for it is an *"outsourcing of daily life."* And yet Rehunchi's assessment carried the strongest female voice in the entire series, on the smallest SHG base (9 groups), with retained indigenous livestock breeds and a functioning CHC counted deliberately among its strengths.



UNIQUE & WORTH PROBING	WHY IT DESERVES PROBING
Settle the plantation compensation PATHRA	The ~700–800 bigha Van Vibhag gain sits on once-cultivated land with dues unpaid; the plan routes settlement through district administration alongside community land records and stewardship rights.
The diet–body–disease reclaim REHUNCHI	Mota anaaj revival framed not as agriculture but as public health, with the community's height-and-illness testimony as its charter.
Cross-border UP–MP convergence REHUNCHI	Dual-state institutional design: joint SHG enterprise networks with adjacent MP villages, cross-border riparian restoration of the Run Nadi with downstream actors, inter-state scheme coordination.
Sand-mining (balu-khanan) regulation PATHRA	Formal Gram Sabha and district oversight of informal riverbed extraction.
Festival and material reclaim PATHRA	End open-space idol immersion, return to clay idols and palash-leaf food culture at community feasts; ritual practice redesigned to protect the tank being restored.
The 28-nal O&M demand REHUNCHI	Sustained operation and maintenance of standing infrastructure named as a Tier-3 work in its own right; the maintenance gap given a line item.
Elder-knowledge documentation with a dye REHUNCHI	Seed, food, song and the beri-tree dye recorded before the knowledge goes; cultural archiving as climate work.
A DRR plan to replace migration-as-default BOTH	GP-level flood, heat and drought planning framed explicitly as the alternative to the bus ticket.

MONEY & THE GAPS

The gaps: **the compensation gap** — the district's flagship ecological gain doubles as its flagship grievance; **the O&M gap**; **the border gap** — schemes stop at the state line the village's economy crosses daily; and **Bundelkhand's drought-shaped finance**, calibrated to crisis relief rather than to the standing works that would blunt the next crisis.

Banda's own indicators: a well without stones in its water, a metre back on the Run Nadi, jowar on a wedding plate, and a compensation cheque that finally clears.

GREEN STORIES

“The Village That Measures Loss in Inches”

PATHRA · NBS / PUBLIC HEALTH

The mota anaaj reclaim — seed bank, chakki, home cooking — as the community's own remedy for the diet– body–disease arc its elders testified to.

“Seven Hundred Bighas Return — at a Price”

PATHRA · NBS / JUSTICE

The series' only upward ecological trend, and the demand that its unsettled compensation be financed as part of the restoration, not apart from it.

“A River With Two States”

REHUNCHI · NBS / GOVERNANCE

Run Nadi check-dams and riparian buffers designed with downstream Madhya Pradesh actors — the pilot's first cross-border restoration proposal.

“Twenty-Eight Taps, One Promise”

REHUNCHI · GOVERNANCE

Sustained operation and maintenance of standing infrastructure elevated to a named plan line — maintenance treated as the work it is.

“Clay Idols and Palash Leaves”

PATHRA · CIRCULAR / CULTURE

Festival materials reclaimed — immersion discipline, leaf-plate feasts — so ritual stops costing the tank its water.

“The Breeds They Kept”

REHUNCHI · CIRCULAR ECONOMY

Indigenous livestock retained through the decline become the base for SHG dairy and goat enterprise — and the gobar the soil reclaim needs.

GREEN VALUE CHAINS

Solar-pump cooperatives & Run Nadi solar lift

Mota anaaj — seed banks, SHG milling, school-feeding linkage

Vermicompost & bio-inputs (gobar khaad, Jeevamrit, Beejamrit)

Indigenous livestock, dairy & goat enterprise

NTFP processing & plantation nurseries with the Van Vibhag

Invasive-biomass (lantana) removal and use

Run Nadi check-dams & riparian plantation

Native bund and NTFP species

TIERED FIRST MOVES FOR BANDA

A · community alone	B · a little support	C · convergence
Shramdaan desilting; the elder-custodian seed bank; immersion and festival- material discipline; herd care rotas returning dung to the fields	Solar pumps with drip and sprinkler in Rabi; SHG milling for mota anaaj; dairy and goat aggregation; lantana clearance cycles	Run Nadi check-dams with formal UP–MP convergence design (inter-state coordination, Jal Shakti); settlement of the plantation-land compensation; sustained O&M finance for the 28 standing taps

SECTION FIVE · DISTRICT 03 OF 07

Reading Basti Whole

Two villages · Karapithiya (Bankati) & Gangauri (Banka) · the Awadh–Purvanchal seam

0

PONDS LEFT IN
KARAPITHIYA

15–20

PONDS LOST IN
GANGAURI, PLUS A
GREAT TANK

12

COMMUNITY-
RUN
ENTERPRISES,
KARAPITHIYA

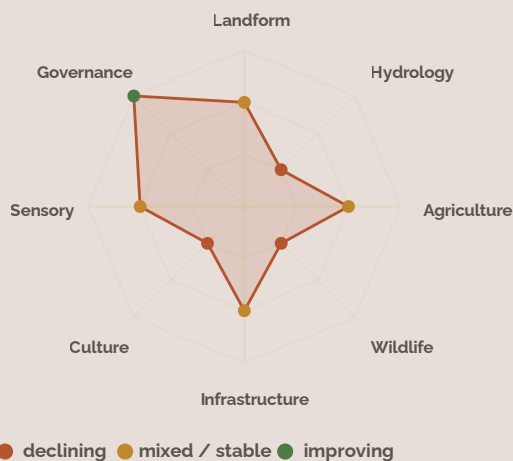
~40%

HOUSEHOLDS
MIGRATING, KARAPITHIYA

“Once the village had a great pond and fifteen to twenty smaller ones, and wells from which the women drew water. Now the ponds have shrunk and turned foul, the wells are filled in, and house after house has its own handpump, borewell and motor.”

ELDERLY GROUP, GANGAURI

THE EIGHT LIFE-ELEMENTS



BASTI'S DISTINCTIVE INSIGHT

Gangauri's causal chain — out-migration → labour scarcity → weedicide and chemicals → zameen banjar → deeper distress → more migration — is the pilot's clearest statement that the labour market and the soil are one system. Any organic transition plan that ignores where the hands went will fail.

THE VILLAGES SPEAK FIRST

Basti's two pilot villages tell the same eastern-UP story at two different volumes. **Karapithiya**, a small panchayat of about 1,135 people, tells it quietly — a genuinely two-sided account in which a decade of gains is named with visible pride: filled roads (*“the potholes in the road were filled; the village got ease of movement and the village developed”*), a piped water tank, a community toilet, a playground, and a new inter college. Its economic base is remarkable for its size: around twelve community-run enterprises — a cooperative fertiliser godam, an RO water unit, a pattal-donā plant, a brick works — with full 4G coverage, some 23 SHGs (253 members) under the Satyam CLF, and a community-scored resilience of about 56%.

And yet the same charts record, without drama, a complete category of loss: **the village no longer has a pond**. Its pond land was farmed over until nothing remained — and the surface water, the pond fauna, the recharge and the fish went with it.

Gangauri tells it at full volume. A Purvanchali landscape that within one generation travelled from a self-sustaining mosaic — a great tank, fifteen to twenty ponds, wells, khal, a half-forest ring, and a careful weave of kodo, sawa, mejhuma, tisi, chana, arhar, matar, bajra and til — to a borewell-driven monoculture. The community's own vocabulary carries the diagnosis: soil turning to *zameen banjar*; a projected *jal-sankat* they call *diwaliya* — water bankruptcy; and a prognosis, *agar aisa hi chalta raha* — if this continues — of rising *bimari* and a feared *mahamari*. Crucially, Gangauri explains *why* the chemicals came: **weedicide and fertiliser were adopted in response to acute labour scarcity from out-migration**.



UNIQUE & WORTH PROBING	WHY IT DESERVES PROBING
Reinstate the khal — with culverts under the RCC roads GANGAURI	The community identifies that its drainage geography was engineered away and asks for it back as designed infrastructure; participatory hydrology at its most literal.
Employment as the first-ranked demand KARAPITHIYA	The only village in the series to rank livelihoods above water; scale the existing ~12- enterprise base, explore an FPO, and add e-rickshaw green mobility as a youth enterprise on the good-road base.
A People's Biodiversity Register KARAPITHIYA	Elders' species memory of the lost pond and forest fauna recorded to guide what to restore.
Girls' monsoon access to school KARAPITHIYA	All-weather road connectivity to schools named as an education demand with a gendered monsoon barrier; plus a library at the new inter college and a youth gym.
First-priority water retention for the elevated Gadauna hamlet KARAPITHIYA	Intra-village water equity named by terrain.
Biomass-to-power GANGAURI	Decentralised energy from sugarcane and wheat residue, replacing field-burning with an income stream.
The juda-banana micro-industry GANGAURI	The existing mop-and-broom craft named as the shock absorber to strengthen, not replace.
Health outreach for a sub-centre-less village KARAPITHIYA	The heat, dengue and COVID experience converted into a standing advocacy demand.

MONEY & THE GAPS

The gaps: **land beneath the water** — no scheme line reclaims a farmed-over pond footprint without a resolution-and-records process nobody funds; **the drainage nobody owns** — khal reinstatement crosses MGNREGA, PWD and private fields at once; and **prevention again** — Karapithiya's 56% resilience and shallow table make it the cheap-to-save village that crisis-calibrated finance reaches last. Monitoring indicators the district can read unaided: water standing where the pond was, a Nautanki staged at the inter college, madua back on one kitchen's plate, and a lane in shade again.

GREEN STORIES

“The Village That Wants Its Pond Back — Fish and All”

KARAPITHIYA · NBS

A community with no pond left asks for one to be re-excavated on common land, protected by resolution, and stocked — the single highest-leverage intervention its plan names.

“The Khal Remembers”

GANGAURI · NBS

Reinstating the natural drainage channels the fields swallowed, with culverts under the concrete so the rain can find its old ways home.

“Brooms Against the Shock”

GANGAURI · CIRCULAR ECONOMY

The existing juda-banana micro-industry — already absorbing agrarian distress — strengthened with aggregation and market access.

“The Leaf-Plate Plant Next Door”

KARAPITHIYA · CIRCULAR ECONOMY

A pattal-donā plant already running; the plan simply scales a biodegradable enterprise the village built itself.

“An E-Rickshaw on a Good Road”

KARAPITHIYA · DRE

Green mobility as youth enterprise, two hundred metres from a twice-weekly market.

“The Elders’ Seed List”

BOTH · NBS / AGROBIODIVERSITY

Community seed banks built from what the oldest kitchens remember — sawa, kodo, madua, mejhuma, tisi — paired with SHG processing.

GREEN VALUE CHAINS



TIERED FIRST MOVES FOR BASTI

A · community alone	B · a little support	C · convergence
Gram Sabha resolution protecting the common land for the new pond; the elders' seed list compiled; SHG production pooling; women's voice carried toward the Gram Sabha	Pond re-excavation and stocking; khal survey and culvert design; juda-banana aggregation; leaf-plate plant scale-up; SHG nursery from local seed	Khal reinstatement with culverts under the RCC roads; decentralised biomass-to- power; all-weather road connectivity for girls' monsoon school access; an FPO and e-rickshaw enterprise finance

Reading Hamirpur Whole

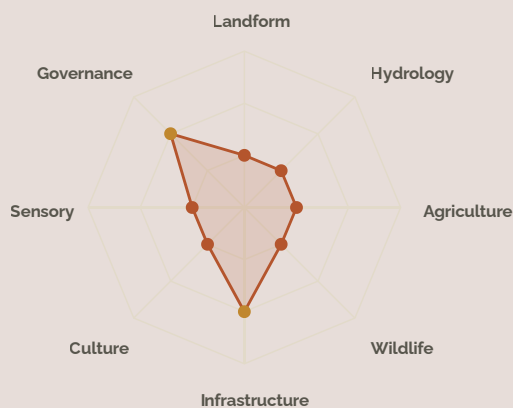
One village · Alragoura, Gaura Gram Panchayat (Muskara block) · the forestless village

1,521	₹3,000	80–150 _{ft}	21
People in 230 households	Average monthly household income	Water table, and falling	SHGS+1PG — ~80% OF THE VILLAGE'S WOMEN

"Earlier the village had orchards, gardens and ponds, and the rains came as they should. Now all this is slowly disappearing."

ELDERLY GROUP, ALRAGOURA

THE EIGHT LIFE-ELEMENTS



The pilot's most uniformly declined natural register — six elements down, with the two institutional elements reading mixed rather than improved.

HAMIRPUR'S DISTINCTIVE INSIGHT

Alragoura is the pilot's *forestless* village — and therefore its purest test of the afforestation agenda. Its plan names large-scale plantation on commons, roadsides, school and panchayat land, protected by iron fencing, as "the single most important ecological action available." **Where other villages restore a forest, Alragoura must found one.**

THE VILLAGE SPEAKS FIRST

Hamirpur's pilot rests on a single village — Alragoura, in Gaura Gram Panchayat of Muskara block, a 626-square-kilometre block in the heart of Bundelkhand, where the *kali mitti* cracks open in the long summer and farming has always ridden on one uncertain monsoon. It is a small, poor and precisely self-aware community: about 36% SC and 56% OBC, with the smallest plots held by the SC families; average landholding 1.5 acres; 778 persons reported BPL; and 60 households (about 26%) migrating seasonally or permanently.

What makes Alragoura essential to the pilot is the fineness of its biological reading. The community did not say “the environment is degrading.” It said: the **earthworms (kenchua) have disappeared from the kali mitti** — and linked the disappearance directly to heavy chemical use. It said: the sparrows are gone, the koyal is heard only occasionally, the vultures are absent, and the fireflies (*jugnu*) fade a little more each summer. It said: salt now crusts the topsoil where the fertiliser regime has run longest. It said: two invaders — **Parthenium (Congress grass) and water hyacinth (jalkumbhi)** — have spread across field and pond, while nilgai and wild boar raid the crops of a village that has **no forest land at all**; its village forest committee sits inactive for want of a forest to steward.

The hydrological account is equally exact. Twenty years ago the panchayat carried orchards, ponds and working traditional water structures. Today the orchards have largely gone, the traditional structures have dried, the water table stands at 80–150 feet and falling, and the monsoon arrives about fifteen days late. In Zaid, about 5% of farmers risk moong and urad while the rest of the land lies fallow under the Bundelkhand sun. And the community has already chosen its remedy. Its **highest-leverage intervention is explicit and repeated: deepen the ponds and link them by canal to the Maudha Dam** — treating that surface-water system as a serious alternative to ever-deeper borewells, with the repair of a damaged 2–3 km canal route named as the top engineering priority.



UNIQUE & WORTH PROBING	WHY IT DESERVES PROBING
The Maudha Dam canal–pond linkage	The community's own named #1 intervention: formal Irrigation Department engineering to make surface water a genuine alternative to the borewell spiral.
Founding a forest where none exists	Iron-fenced plantation blocks as the village's “single most important ecological action,” with the inactive forest committee revived around the new asset rather than mourned for the old one.
Earthworm recovery as a monitored indicator	Periodic testing of salt crusting and <i>kenchua</i> return with Agriculture-department lab support; soil biology as a formal metric.
Invasive -sp e cies shramdaan rotation	Parthenium and jalkumbhi removal organised as a seasonal community labour cycle so the invaders never re-establish.
Festival puja-waste discipline	A designated immersion and disposal point, with awareness during Hariyali Teej; ritual practice adapted to protect the very ponds being restored.
Compensatory roadside plantation	Replanting for the 100+ trees felled for the new road, financed through Forest/PWD convergence; an unpaid ecological debt named precisely.

MONEY & THE GAPS

The gaps: **Bundelkhand's finance is drought-relief-shaped**, calibrated to crisis years rather than the standing works that would blunt the next crisis; **fencing is the orphan line** — plantation schemes fund saplings more readily than the iron that keeps them alive; and **a ₹3,000 household economy cannot co-pay** — every Tier-B and Tier-C work here must arrive with its full cost, or it will not arrive. Alragoura's indicators, chosen by its own assessment: a worm in the kali mitti, a koyal in the morning, water standing in a deepened pond fed by a repaired canal, and a jugnu-lit June night.

GREEN STORIES

“The Earthworm Comes Home”

NBS / SOIL

A village that diagnosed its soil’s death by the kenchua’s absence proposes to certify its recovery the same way — vermicompost at cluster scale, residue to the compost pit instead of the flame, and the worm’s return as the monitored metric.

“A Canal to the Maudha Dam”

NBS / ENGINEERING

The community’s own flagship — deepened ponds linked to a dam’s canal, surface water restored as the alternative to the borewell spiral.

“Founding a Forest”

NBS

Iron-fenced plantation blocks on commons, roadside, school and panchayat land — afforestation in a village with no forest to restore, and a forest committee revived around the new asset.

“The Orchard Returns as Enterprise”

NBS / VALUE CHAIN

Citrus, mango, guava and amla on commons and bunds, with SHG-led pickle, candy and dried-fruit processing turning the six-year wait into a business plan.

“Congress Grass Meets Its Rotation”

CIRCULAR / NBS

Seasonal shramdaan cycles removing Parthenium and jalkumbhi before they re-seed — invasion management as community calendar.

“Sun on the Rainfed Plots”

DRE

Solar pumps explicitly paired with low-water cropping — the plan’s own phrase is “ecological coherence” — so Bundelkhand’s sun eases the water budget rather than draining it.

GREEN VALUE CHAINS



TIERED FIRST MOVES FOR HAMIRPUR

A · community alone	B · a little support	C · convergence
Seasonal shramdaan rotation against Parthenium and jalkumbhi; residue to the compost pit by resolution; stall-feeding and grazing norms returning dung to the fields	Cluster-scale vermicompost; iron-fenced plantation on commons and school land; orchard planting on bunds; SHG fruit- processing lines	The Maudha Dam canal repair and pond linkage — the community’s named first engineering ask; solar pumps with water budgeting; pond deepening at scale

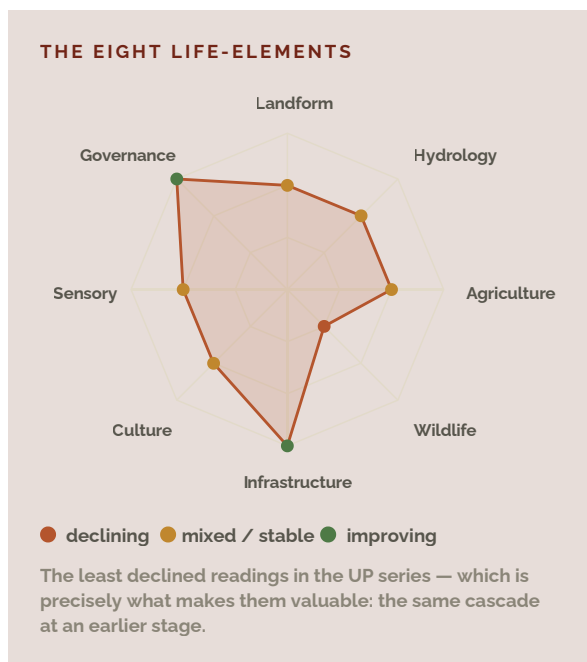
SECTION SEVEN · DISTRICT 05 OF 07

Reading Lakhimpur Kheri Whole

₹50–60→ ₹500 Daily wage over twenty years, Bailha	48 SHGS IN BAILHA	 HYDROLOGY MIXED —	5 POINTS IN SINGHA KALA'S OWN CONSERVATION PLAN
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Gobar khad gave less yield but a healthy, disease-free crop; chemical fertiliser gives more yield but disease-prone crops.

THE COMMUNITY'S OWN DIAGNOSIS, SINGHA KALA (PARAPHRASED FROM THE LCAT REPORT)



THE DISTRICT'S DISTINCTIVE INSIGHT

Singha Kala presented its **own five-point conservation framework** — wildlife sanctuaries and national parks, tree planting, a ban on hunting, awareness raising, and a ban on forest cutting — unprompted. **The Terai is not waiting to be convinced; it is waiting to be resourced.**

THE VILLAGES SPEAK FIRST

Lakhimpur Kheri is the pilot's counterweight — and its conscience. Bailha and Singha Kala, on the Terai's fertile alluvium under the Saryu's influence, are the two most water-secure villages in the UP series, and the two most emphatic about what modernisation has genuinely given them. **Their testimony forbids any simple story of decline.**

Singha Kala remembers what the old village actually was: houses of *chappar* (thatch), where one cooking fire could burn entire neighbourhoods; night trips to the fields for defecation under constant threat of snake and scorpion bites — a daily reality that fell hardest on women; kachha roads that turned to mud; a bigha of land yielding about one quintal behind a bullock team. The pucca house, the toilet, the road and the tractor are named in the charts as *safety and dignity*, not luxury. **Chakbandi** — land consolidation — gets its own grateful mention. Bailha adds the pilot's most striking social finding: **caste discrimination (bhed-bhaav), once enforced even in temples, gurudwaras and shared seating, has visibly reduced — people of all communities now sit, eat and live mixed together**, where fifteen or twenty years ago they could not. And then, with the same striking honesty, both villages read out the bill. Forest cover has thinned until wild animals now enter the village and damage crops — intrusion has become *aam baat*, a common matter. Soil once soft and fertile under gobar khad is hardening under *angrezi dawaayein*. Pollution and illness have risen sharply (Bailha); groundwater is declining and ponds drying (Singha Kala); refrigerator- and machine-supplied water is flagged — in the community's own words — as a health concern; and the ₹500 wage arrived with living costs that outpaced it for many households.

The Terai's message to the rest of the pilot: the gains are real, the communities want to keep every one of them — and they can see, earlier than the water table forces them to, exactly which systems the gains are drawing down.

UNIQUE & WORTH PROBING	WHY IT DESERVES PROBING
The community's own five- point conservation plan SINGHA KALA	Including the demand for wildlife sanctuaries and a local protected zone; a village asking to formalise habitat protection.
Road safety on the bigger roads SINGHA KALA	The pilot's only such demand: pucca-road expansion has brought a new accident risk, and the village asks for signage, speed-calming and safe crossings.
Water-quality testing of the modern systems SINGHA KALA	The community flags refrigerator- and machine-supplied water as a health concern and asks that tap/RO water be tested to standard; scepticism of modernity's plumbing, stated as a testable claim.
Sustain the social-equality gains BAILHA	Mixed-community participation and inclusive seating norms written into the plan as a deliverable to <i>protect</i> , not just celebrate.
Banana and sugarcane value addition BAILHA	Cleaner processing on the Terai's high-value crop base, via FPO and food-processing schemes.
Pollution control on factory and machinery emissions BAILHA	Regulatory coordination with the Pollution Control Board on local sources.

MONEY & THE GAPS

The Terai's characteristic gap is **preventive finance**: schemes are calibrated to crisis, and these villages are asking for investment *before* the crisis — recharge while water is still adequate, transition demos while soil still responds, habitat work while the forest still stands. **The cheapest climate money the state could spend in this pilot is here, where the curve has not yet steepened.**

THE SENSES' RECORD

Monitoring indicators the Terai can read without instruments: the softness of a handful of soil, a season without a burning field, an animal seen at the forest edge rather than in the cane, and every community still sitting together.

GREEN STORIES

“The Village That Wrote Its Own Conservation Act”

SINGHA KALA · NBS / GOVERNANCE

A five-point community framework — sanctuaries, planting, hunting ban, awareness, felling ban — two points of which need nothing but a Gram Sabha resolution to begin.

“Everyone at the Same Table”

BAILHA · SOCIAL RESILIENCE

The caste-equality transformation written into the plan as infrastructure — the trust on which every collective work below depends.

“The Gobar Verdict”

SINGHA KALA · NBS / AGRICULTURE

The community’s own controlled comparison — disease- free crops under gobar, disease-prone under chemicals — turned into demonstration clusters and jeevamrut production.

“Straw to the Byre, Not the Sky”

BOTH · CIRCULAR ECONOMY

Residue baled for fodder and compost under Gram Sabha no-burn resolutions.

“Cleaner Cane, Better Banana”

BAILHA · VALUE CHAIN

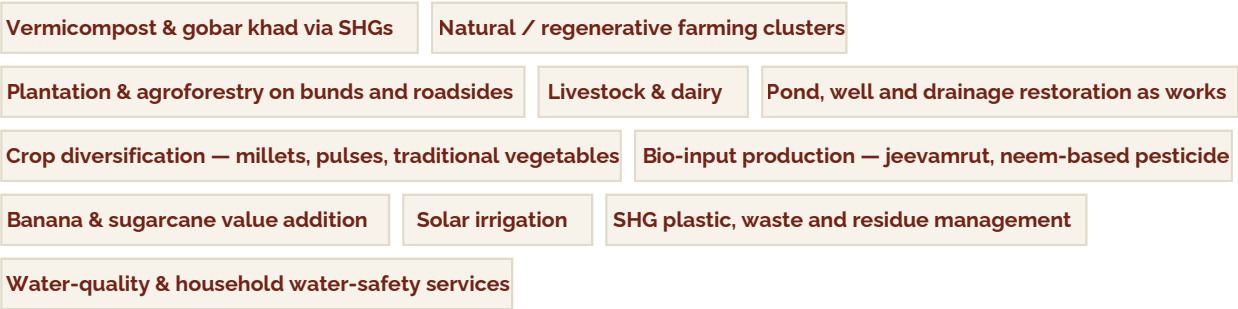
Value addition with cleaner processing on the crops the Terai already grows well.

“Sun on the Diesel Line”

BOTH · DRE

Solar irrigation pumps to cut diesel cost and emissions — before, not after, the water table forces the issue.

GREEN VALUE CHAINS



TIERED FIRST MOVES FOR LAKHIMPUR KHERI

A · community alone	B · a little support	C · convergence
The five-point conservation framework’s resolution points — hunting and felling bans; no-burn resolutions; residue baled for the byre; the shared table maintained as social infrastructure	Demonstration clusters for gobar and jeevamrut; SHG vermicompost; bund and roadside planting; household water-safety testing	Banana and sugarcane value addition with cleaner processing; solar irrigation at scale; pond, well and drainage restoration as convergent works

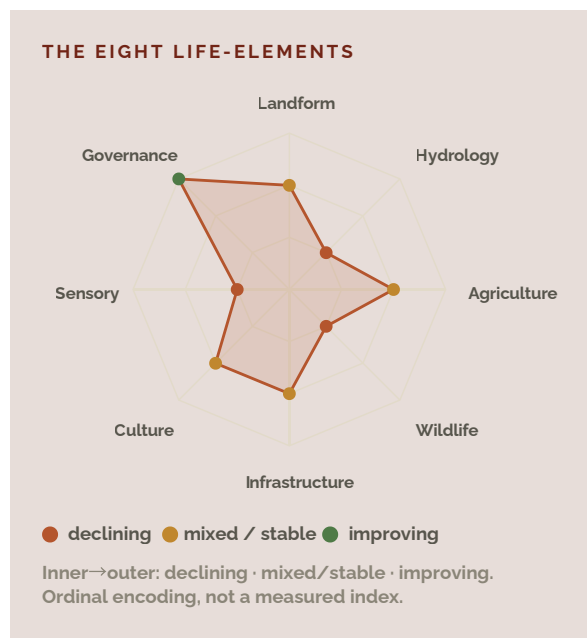
Reading Prayagraj Whole

Two villages · Devghat & Belhat (Koraon block) · the Vindhyan edge and Koldihwa

~84% FOREST LOST IN DEVGHAT — ~2,500 TO ~400 BIGHA	20/50 COMMUNITY WELLS STILL FUNCTIONAL, DEVGHAT	300–600ft REPORTED IN BELHAT'S HARDEST HAMLETS	50–100 RAM PYARI WINTERING ON BELHAT'S TWO PONDS
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"Production has grown, but the soil has weakened."

ELDER FARMER, MIXED PLENARY, DEVGHAT



PRAYAGRAJ'S DISTINCTIVE INSIGHT

Heritage is this district's unspent capital. A subcontinental first (Koldihwa's rice), a 400-year sporting tradition (the Kushti), a winter flyway (Ram Pyari), and a Mela calendar that still assembles everyone — **four assets that could finance and legitimise the landscape's repair, all currently earning nothing.**

THE VILLAGES SPEAK FIRST

Prayagraj's pilot sits where the lower Vindhyan slope meets the Gangetic plain — Koraon block, on the terraces of the Belan river — and it holds the series' deepest time and its starkest arithmetic in the same two villages.

The deepest time belongs to **Devghat**. Within this panchayat lies **Koldihwa — among the earliest documented evidence of rice cultivation in the subcontinent** — a heritage of world significance that today stands without signage, recognition or a single livelihood attached to it. Around it, one of Koraon's largest panchayats (27.89 sq km, 18 hamlets, 43 SHGs with 609 members under the Shikhar CLF) has run the modern arc at full speed: forest fallen from a remembered ~2,500 bigha to ~400 bigha in twenty years, 20 functional community wells left of 50, groundwater at 60–150 feet varying hamlet to hamlet, and the Belan itself, once clean enough for Mahashivratri puja, receiving household nali discharge since around 2012. The elders' summary is the district's epigraph: production up, soil down. And the grain, they add, was once *shuddh* — pure.

The starkest arithmetic belongs to **Belhat**, a compact seven-hamlet panchayat where cultivated land has roughly doubled in twenty years as rocky *pathar* was levelled into fields — and groundwater now sits at 180–220 feet in the better hamlets and **300–600 feet in the hardest**. Yet Belhat also holds the pilot's two most distinctive living assets: every winter, 50–100 migratory birds the village affectionately calls **Ram Pyari** descend on its two ponds; and for 400 years, the village's **Kushti/Dangal** at Naag Panchami and Teras has drawn wrestlers and spectators from across state lines.

Both assessments carry a governance detail worth the whole pilot's attention: the sessions opened with a “4 J's” facilitation — *Jal, Jungle, Jameen, Jeev*, held together by *Jan* — staged as a court case, and it was this that **cleared the ghunghat-bound silence**: SHG women who began the meetings veiled and quiet became vocal participants.

UNIQUE & WORTH PROBING	WHY IT DESERVES PROBING
Activate Koldihwa DEVGHAT	An interpretation centre, a Belan-side eco-cultural trail, SHG Mela stalls and homestays at one of the subcontinent's earliest rice-cultivation sites; heritage as an unclaimed climate asset.
A migratory-bird Community Conserved Area BELHAT	The two ponds and their buffer kept undisturbed for the Ram Pyari's winter visitation, with an annual school bird count and the Sarus crane's return adopted as the five-year indicator.
The Kushti as livelihood BELHAT	State-tourism positioning of the 400-year Dangal, with SHG homestays, akhara-themed stalls and a heritage trail linking the wrestling grounds, the Deshawari temple, the winter-bird ponds and the Kapoori Kali Mata Chabootara.
An inter-panchayat MoU on hunting BELHAT	Coordination with neighbouring Para GP on Musahar livelihood alternatives to airgun hunting; conservation designed as poverty policy, not prohibition.
Pre-season pest management on a known calendar DEVGHAT	Training before the November Haritiddi and a DRR roster for the 2–3-year hailstorm cycle; climate shocks treated as schedulable.
Legal aid against court dependence BOTH	DLSA camps and revived mediation, because dispute-resolution costs are draining the same households the landscape's decline squeezes.
The herbal-garden and jadi-buti revival DEVGHAT	Documenting elders' medicinal-plant knowledge before it is lost, with a medicinal-plant cluster via the Ayurvedic Clinic (Belhat).

MONEY & THE GAPS

The gaps: **heritage finance has no village door**; **equity works fall between schemes** — one hamlet's electricity and another's drinking water are exactly the convergence orphans the plans' “equity-first” framing exists to catch; and **the deep aquifer outruns village works** — Belhat's hardest hamlets need watershed-scale investment that soak pits alone cannot deliver. Monitoring indicators the district chose itself: the Sarus landing, a clear Belan at Mahashivratri, the smell of soil after rain, and a Gram Sabha where the ghunghat stays lifted.

GREEN STORIES

"Where Rice Was First Grown, Farming Begins Again"

DEVGHAT · NBS / HERITAGE

The natural-farming transition anchored on Koldihwa — hamlets that never left vermicompost farming, beside a site documenting rice's earliest subcontinental history.

"Ram Pyari's Winter Address"

BELHAT · NBS

A Community Conserved Area for the 50–100 wintering "Kashmiri Chidiya," with schoolchildren as census-takers and the Sarus crane's return as the public five-year indicator.

"Four Hundred Years of Grip"

BELHAT · CULTURE / LIVELIHOOD

The Naag Panchami Kushti positioned as heritage tourism — homestays, akhara stalls, a trail from the wrestling ground to the winter-bird ponds.

"Giving the Belan Back Its Puja"

DEVGHAT · NBS

Soak-pit greywater diversion across eighteen hamlets so the river that carried Mahashivratri worship stops carrying drains.

"The 4 J's Court Case"

BOTH · GOVERNANCE

The facilitation that put Jal, Jungle, Jameen and Jeev on trial before Jan — and cleared the ghunghat from the room; participation itself as the first restoration.

"Ninety Percent Keep Animals — So Build the Biogas"

BOTH · CIRCULAR ECONOMY

Cluster digesters and fuel-efficient chulhas on the district's near-universal livestock base, easing the fuelwood pressure that felled the forest.

GREEN VALUE CHAINS



TIERED FIRST MOVES FOR PRAYAGRAJ

A · community alone	B · a little support	C · convergence
Household soak pits diverting greywater from the Belan; the annual community bird count with school and Anganwadi; Gram Sabha protection of the five Devsthal and the wrestling ground; the 4 J's facilitation carried into the Gram Sabha itself	Cluster biogas digesters and improved chulhas; SHG vermicompost through the CLFs; herbal garden and NTFP aggregation; well-network repair across the 20 survivors	The Community Conserved Area for the wintering birds; Koldihwa site activation with signage and livelihood (State Tourism, Archaeology); the well and pond network restored as one system; equity- first infrastructure for Badhghat and Baansghaat

SECTION NINE · DISTRICT 07 OF 07

Reading Sultanpur Whole

Two villages · Emiliya Khurd & Bandhua Kalan (Dubepur block) · the Awadh plain

18→6

PONDS, BANDHUA KALAN

45 : 1

PRIVATE TO
GOVERNMENT
TUBEWELLS

~42%

EMILIYA KHURD
RESILIENCE — THE
SERIES' WEAKEST

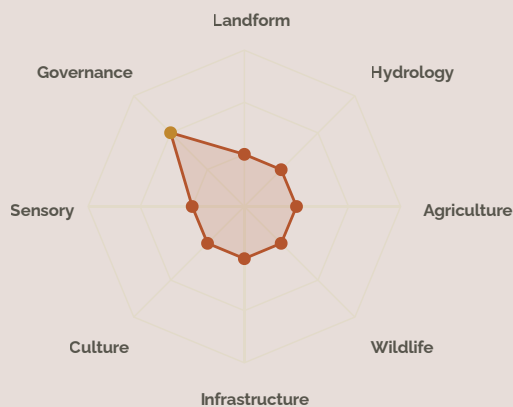
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SHGSINBANDHUA KALAN
— THE SERIES' DENSEST

"In place of the veterinary clinic a Panchayat Bhawan has come up, so when the animals fall ill, vaccination cannot be done on time."

LIVELIHOODS CHART, BANDHUA KALAN

THE EIGHT LIFE-ELEMENTS



The series' heaviest declines — including the only village where Infrastructure & Economy itself scored a sharp decline.

SULTANPUR'S DISTINCTIVE INSIGHT

The district pairs the pilot's weakest village with its densest institutional fabric — and both plans reach the same governance invention: a panchayat-level **Landscape Committee** anchored on the SHG platform, with **measurable five-year Sankalps**. Species and songs as key performance indicators.

THE VILLAGES SPEAK FIRST

Sultanpur's two pilot villages, both in Dubepur block on the Awadh alluvium near the Gomti's southern reach, are a study in contrast — one small and data-thin, one large and institution-rich — converging on the same diagnosis from opposite ends.

Emiliya Khurd is the pilot's most anxious voice. Its assessment was a short, intensive exercise: eight handwritten chart sheets across five themes, with the village-profile tables that normally accompany an LCAT absent — a **secondary-data gap the plan itself flags for a follow-up profile exercise** before anything is costed. But the chart-paper voice needs no tables. Ten years ago the wells were full; the imli, aam and mahua of the signature orchard belt stood tall; the *teelas* were uncut; and the Neelkanth, the Saale and the Gidh were part of the village skyline, as the Kajri-Alha was part of Panchami. Today the orchards are cleared for homes, the *teelas* levelled, the named birds "*ab lupt ho gaye*" — vanished — and the DJ stands where the *deshi gaane* were. The community's refrain recurs across the charts: *agar aisa hi chalta raha to* — if this continues — drinking water will fall short, farming will be destroyed, birds and animals will start dying, plants will wither.

Bandhua Kalan is the series' outlier by livelihood: a large panchayat of roughly 8,988 people whose economic centre of gravity is not the plough but the **artisan's bench** — jewellery, bangle-making and copper-brass (*tāmbe-pīṭal*) utensil work, with women carrying much of the bangle and utensil labour. Only

about 200 of its 1,358 households farm as a primary occupation. Its institutional fabric is the series' densest: 54 SHGs, five Village Organisations, 590 SHG women and a 46-family FPO. And yet its charts are anything but comfortable: ponds fallen from 18 to 6; the water table "sinking into the ground"; the copper-

brass and *lāī* trade thinning; the Sohar-Kajri-*biāḥ* song tradition falling silent at weddings; the joint family splintering. And one grievance sharper than all the rest — the epigraph above.

Between them, the two villages give Sultanpur's pilot its theme: **what one institution's absence costs, and what another's presence could repair.**

UNIQUE & WORTH PROBING	WHY IT DESERVES PROBING
Restore the veterinary sub- centre BANDHUA KALAN	The village's first and most-named demand: reverse the clinic-to-Panchayat-Bhawan conversion through a sub-centre or para-vet and mobile-vet arrangement, with livestock insurance and SHG-FPO dairy aggregation.
Battery vehicles for internal mobility EMILIYA KHURD	The community's own forward-looking air-quality ask, paired with cluster solar, biogas and improved-chulha support.
Bird recovery as a public five-year indicator EMILIYA KHURD	The Neelkanth, Saale and Gidh adopted as the village's success metric, with a school/Anganwadi bird census as the measurement system.
The verified village-profile exercise EMILIYA KHURD	A Tier-3 demand <i>for data itself</i> : a baseline survey to close the gap the assessment exposed, so every action can be costed.
Metalcraft and bangle cluster upgrade BANDHUA KALAN	Design, market linkage and FPO aggregation for a heritage artisan economy asking to be treated as a green value chain.
Leaf-plate (pattal-donā) revival BANDHUA KALAN	Biodegradable commensality restored as SHG enterprise against bought crockery.
Water-quality testing where taste changes EMILIYA KHURD	The community's own sensory trigger converted into a testable, fundable protocol.
Native nursery as a supply-hub EMILIYA KHURD	An SHG nursery raising the named species for bulk supply to other Dubepur panchayats; one village proposing to green its neighbours.

MONEY & THE GAPS

The gaps: **the institutional-conversion gap** — no scheme line exists to *undo* a building repurposing, which is why the vet demand must be argued as a livestock-economy restoration; **the data gap as a finance gap** — Emiliya's missing profile blocks costing, making the baseline survey itself a Tier-3 ask; and **the artisan gap** — a heritage craft economy that fits no green-finance box despite being the village's actual circular economy.

THE SENSES' RECORD

The district's monitoring indicators, chosen by its own villages: a Neelkanth sighted, a Kajri sung, a seventh pond holding water, and a vaccination done on time.

GREEN STORIES

"The Return of the Neelkanth"

EMILIYA KHURD · NBS / MONITORING

A village adopts a bird's homecoming as its public five-year indicator, with pond and orchard restoration as the habitat work and schoolchildren as the census-takers.

"Toward the Remembered Eighteen"

BANDHUA KALAN · NBS

Pond restoration counted against living memory — six survivors desilted first, lost footprints reclaimed, the canal as the recharge backbone.

"The Vet Comes Back"

BANDHUA KALAN · CIRCULAR ECONOMY FOUNDATION

Restoring animal healthcare as the keystone of the gobar– dairy–biogas economy the whole organic transition rests on.

"Copper, Brass and a Second Life"

BANDHUA KALAN · CIRCULAR ECONOMY

The heritage tāmbe-pīṭal and bangle clusters reorganised as a repair-and-remake craft economy with design and market linkage.

"The Village That Asked for Battery Vehicles"

EMILIYA KHURD · DRE

A small Awadh panchayat's own clean-mobility pilot, alongside solar rooftops and improved chulhas to cut the fuelwood draw that fells the trees.

"A Nursery for the Neighbours"

EMILIYA KHURD · NBS / ENTERPRISE

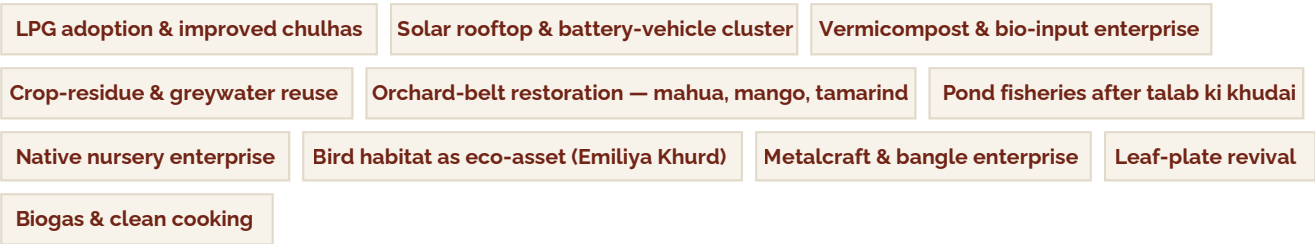
An SHG native nursery scaled to supply saplings across Dubepur block — restoration as an export product.

"The Song Comes Back to Panchami"

BOTH · CULTURE

Kajri-Alha and Sohar-Kajri revived by mela and cultural committees, senior singers paired with youth, deshi gaane given space alongside the DJ.

GREEN VALUE CHAINS



TIERED FIRST MOVES FOR SULTANPUR

A · community alone	B · a little support	C · convergence
The five-year Sankalp adopted publicly — the Neelkanth's return and the Kajri-Alha revived as its metrics; mela and cultural committees convened; shramdaan desilting of the six surviving ponds	SHG native nursery scaled for block supply; vermicompost lines; orchard planting on commons and bunds; para-vet and mobile-vet arrangements as the interim fix	Restore the veterinary sub-centre (Animal Husbandry); the canal as recharge backbone with pond linkage; artisan- cluster finance for metalcraft and bangles; the battery-vehicle and solar rooftop cluster

CONCLUSION

What Thirteen Villages, Read Whole, Have Told the State

The finding is not that Uttar Pradesh is in trouble. It is that the people living inside the trouble can already describe its mechanism, name its remedy, and cost the first column themselves.

THE CASCADE, IN THE COMMUNITIES' OWN SEQUENCE

When the pond goes, the well follows; when the orchard goes, the bird follows; when the grain goes, the body follows. And where the body has followed — Pathra's elders reading their decline in their sons' stature, Rehunchi naming an "outsourcing of daily life" — the last link in the chain is a bus ticket. Migration is this state's unpriced adaptation programme, and it is also the constraint on every labour-intensive repair the plans propose.

WHAT THE PILOT ESTABLISHES

In the most populous and most internally varied state in India, village-scale, community-led assessment is not a supplement to adaptation planning. It is the only resolution at which adaptation can meet the people who need it — and, on the evidence of these thirteen villages, the people are already there, waiting with the diagnosis written out.

Source note. This conclusion synthesises only material contained in the thirteen village assessments and the district and state summaries compiled from them. No figure, quotation, place name or scheme name appears here that does not appear in those sources. Scheme mappings throughout the report are indicative and must be verified with block and district administration.

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“This is the first time we have looked at our village, and all that has changed in it, together — as one community.”

A self-help-group member, LCAT field conversations

ABOUT THIS REPORT

Reading the Village Whole — a national consolidated report on the Community-Led Landscape Assessment Tool (LCAT) pilots across Uttar Pradesh.

Authors

Anveshi Gupta

Ashok Kumar

Neeraja Kudrimoti

CONTACT

TRI Square,
43 Community Centre Zamrudpur,
Kailash Colony Extension,
Behind Hanuman Mandir,
New Delhi,
Delhi 110048

info@trif.in

<https://www.trif.in/>

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