Peer Video Agricultural Extension — Making It Work for Tribal Odisha

The explanation for why it works is as important as that it works: unlike a government extension agent visiting once with a demonstration, video can be viewed repeatedly, at the farmer's pace, by multiple household members including those who couldn't attend the demonstration. Th...

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Why Conventional Extension Fails in Tribal Odisha — and What Video Addresses

Agricultural extension in Odisha's tribal blocks faces a structural problem: the extension agent is usually not from the community, usually does not speak the community's language fluently, usually visits infrequently (quarterly at best, annually in practice), and delivers information derived from research station conditions that may have limited relevance to the specific soil, climate, and crop mix of the communities being served.

The information often reaches the farmer through a chain: state research station → ATMA (Agricultural Technology Management Agency) → block extension officer → Krishi Sakhi or SHG member → farmer. At each stage, relevance, accuracy, and cultural fit degrade.

Peer video addresses three specific failures:

The language failure: A video can be produced in the community's own language — Gondi, Kharia, Santali, Kui — by farmers from that community demonstrating practices in their own fields. The language barrier that makes a Gondi-speaking farmer distrust an Odia-speaking extension agent disappears when the person demonstrating on screen is recognisably from the same community.

The credibility failure: Research consistently shows that farmers are more likely to adopt practices demonstrated by peers — other farmers from similar backgrounds, operating in similar conditions — than by extension agents or officials. J-PAL's original Digital Green evaluation established this: local content featuring local farmers demonstrating practices in local conditions outperformed external expert demonstrations by a factor of approximately 7x in adoption rates.

The accessibility failure: A video can be shown at SHG meetings, at panchayat gatherings, at VLCPC meetings, at any community occasion where people are already assembled. It does not require the farmer to travel to an extension event. The content comes to the community rather than requiring the community to come to the content.

The Four Components That Make It Work

Component 1: Local content production

This is the most important design element and the one most often cut as a cost-saving measure. Content produced centrally — in Odia or Hindi, by professional videographers, featuring extension officers or actors — does not produce the adoption effects that locally-produced, peer-featuring content does.

Local content production requires:

Subject identification: Community members who have successfully implemented the practice being filmed, willing to demonstrate and speak on camera. The farmer on screen should be recognisably local — in the community's language, in their own field, with their own tools. "The thrill of appearing on TV" is a documented motivator; local

farmers who have been filmed become local advocates for the practice they demonstrated.

Production quality: Adequate for the content to be clearly visible and audible, not professional broadcast quality. A reasonably steady smartphone camera with good lighting produces workable content. The content needs to show each step of the practice clearly, without rushing. Typical video length: 8–12 minutes for a multi-step practice, shorter for single actions.

Language: In the community's primary language, with simple vocabulary. If the practice has technical vocabulary with no local equivalent, use the local word closest in meaning and show the concept visually. Do not rely on subtitles — most tribal farmers in Odisha cannot read subtitles fluently.

Participation in scripting: The farmer being filmed should help script the content — what steps to show, in what sequence, what common mistakes to address, what questions farmers ask most frequently. The mediator or NGO staff who understands both the practice and the community validates the content for accuracy and cultural fit.

Cost: A well-produced 10-minute agricultural practice video in a tribal language costs approximately ₹8,000–15,000 to produce with a local videographer and appropriate preparation. This is a one-time investment for content that can be screened hundreds of times over multiple seasons.

Component 2: Structured community screening

The video is shown to groups of farmers — not distributed individually for private viewing. The group screening model activates the social learning dynamics that explain most of the evidence-based effect. Farmers who watch with peers ask questions, debate relevance to their specific conditions, and make collective commitments.

Optimal screening settings: SHG meetings (Mission Shakti groups already have monthly meeting infrastructure); farmer group meetings; gram sabha-adjacent community gatherings; VLCPC meetings where agricultural issues are raised. The mediator's role during screening: pause at key steps, ask if the practice is clear, invite questions, facilitate discussion of how the practice applies to local conditions.

Screening equipment: A smartphone or tablet with adequate battery and a portable small speaker is sufficient for groups of 15–30. A pico projector (cost: ₹8,000–15,000) enables larger-group screenings in low-light conditions. Solar charging eliminates the dependence on unreliable grid electricity.

Mediator training: The person who screens the video needs to understand the practice being demonstrated — not as an expert, but well enough to answer basic questions and to facilitate discussion when the video ends. This is 1–2 days of preparation for each new content topic, not a lengthy training programme.

Component 3: Follow-up and feedback

The Bihar RCT finding on video is nuanced: effects were significant in year one but smaller in year two. One interpretation is that the novelty effect diminished. Another — more supported by the detailed data — is that follow-up, demonstration plots, and ongoing mediator engagement sustained adoption in year one better than in year two, where follow-up was less consistent.

The evidence from Ethiopia was clearer: extension agents who used video made greater effort to visit farms and provide follow-up advice than those who did not, suggesting that video increases extension agent engagement rather than substituting for it.

What follow-up looks like: After a community screening, the mediator visits two or three households who indicated interest in trying the practice — checking whether they have tried it, what problems they encountered, providing specific guidance. This is not a systematic farm visit programme. It is a targeted, peer-friendly follow-up with

the most interested farmers.

Component 4: Content library and sequencing

A single video is not an extension programme. A library of videos on a coherent set of practices — seed preparation, transplanting, water management, bio-input preparation, post-harvest handling — constitutes a seasonal extension curriculum that communities can access throughout the agricultural calendar.

The Odisha Millet Mission's WASSAN has produced video content on System of Millet Intensification practices, bio-input preparation, and seed bank management — available in Odia, with some in tribal languages. Access Agriculture (accessagriculture.org) has a library of farmer training videos in regional Indian languages, including some in tribal languages, available for free download. Contact WASSAN's Programme Secretariat to access OMM's video content library.

Adapting for Odisha's Tribal Language Diversity

Odisha's tribal communities speak languages from four distinct language families — Indo-Aryan (Odia-influenced), Dravidian (Gondi, Kui), Austroasiatic (Santali, Kharia, Juang, Ho), and Tibeto-Burman (in the far northeast). An Odia-language video is not just poorly translated for a Kharia-speaking community — it is linguistically inaccessible.

Practical approach to language diversity:

For languages with significant speaker populations and some digital content (Santali, Gondi, Kui) — produce content in the language with local community members. The video library for these languages can be built over time, one practice at a time.

For smaller PVTG languages (Bonda, Didayi, Juang) where video production in the language is not yet feasible — use visual demonstration as the primary mode with minimal spoken narration. A carefully sequenced demonstration video that shows each step clearly, with a skilled mediator from the community narrating live during

screening, produces similar learning outcomes to fully voiced video content.

For practices that are not language-dependent — soil testing, water application amounts, seed spacing — visual-first content works across language contexts.

Getting Started: A Practical First Step

The lowest-cost entry point into peer video extension for an NGO already working in tribal agricultural communities:

1. Identify one farming practice that your community members have successfully adopted and that others are interested in (millet SMI transplanting, jeevamrut preparation, siali leaf plate making, community seed cleaning)
2. Find one community member who does it well and is willing to be filmed
3. Work with a local videographer or a smartphone-equipped NGO staff member to film a 10-minute demonstration, in the community's language, at the farmer's field
4. Screen the video at the next SHG meeting in the community, with the farmer who was filmed present to answer questions
5. Track how many households try the practice in the next season

This single iteration — one video, one community, one season — produces learning about what content format works for your specific community context that no planning exercise can substitute for. Start small. Iterate.

Related Knowledge Commons content: Agriculture & Markets Sector Primer (Sector 09) · Practice Note: Millet Value Chains — The OMM Model · Practice Note: Climate-Resilient Agriculture for Tribal Farmers

Evidence Grade: A/B — The Digital Green Bihar RCT (Baul et al. 2024) is Grade A. The Ethiopia IFPRI RCT and J-PAL evaluation are Grade A. The broader adoption evidence is

Grade B multi-study. Last reviewed: April 2026.

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