International Scientific Journal of Engineering and Management (ISJEM) ISSN: 2583-6129
Special Edition: Volume: 04 IMCD – 2025 DOI: 10.55041/ISJEM.IMCD018
An International Scholarly || Multidisciplinary || Open Access || Indexing in all major Database & Metadata

Postcolonial Visuality in Climate Crisis Photography: Representing Small-Scale Paddy Farmers of Dhamtari District, Chhattisgarh Through a Sustainability Lens

Dr. Rahul Shakya

Assistant Professor, School of Still Photography

AAFT University of Media & Arts, Raipur

rahul.shakya@aaft.edu.in

Abstract

Small-scale paddy farmers in the drought-prone villages of Dhamtari district, Chhattisgarh, represent one of India's most climate-vulnerable agricultural populations. Their lived realities—shaped by unpredictable rainfall, declining groundwater levels, and repeated crop losses—are frequently communicated to the public through climate crisis photography. However, despite the increasing global reliance on visual narratives to convey climate urgency, the representation of these farmers is seldom examined through a critical theoretical lens. This paper explores how categories of climate imagery produced by NGOs, environmental campaigns, international media, and sustainability organisations construct the identity, agency, and vulnerability of Dhamtari's small-scale farmers.

Drawing upon Postcolonial Theory (Spivak, Bhabha, Said), Visual Culture Studies, and Sustainability Communication frameworks, this research demonstrates that such photographs often operate within inherited colonial visual structures, reinforcing subalternity and limiting farmer agency. Instead of portraying farmers as knowledgeable ecological actors, the imagery frequently frames them as passive victims or symbolic figures of suffering. Through a theoretical methodology grounded in semiotic interpretation and critical discourse analysis, the paper studies patterns across categories of images—such as drought-awareness campaigns, food security posters, and news photo-stories—without analysing any specific copyrighted photographs.

The analysis reveals that visual tropes such as exoticisation, eco-romanticism, and victim framing continue to dominate sustainability communication. These tropes risk reducing complex agricultural challenges to emotionally charged but oversimplified narratives. The paper argues that such representations influence public perception, humanitarian response, and policy-making by privileging external interpretations of climate hardship over farmer-centred understanding.

The study concludes that ethical, decolonial visual storytelling is essential to climate communication. It calls for imagery that foregrounds the resilience, indigenous ecological knowledge, adaptive strategies, and agency of small-scale paddy farmers in Dhamtari, offering pathways for more just, accurate, and sustainability-aligned representation.

Keywords: **Sustainable Development Goals, Postcolonial visuality, Climate communication narratives, visual communication, Semiotic interpretation.**

Introduction:

The Two Face Drought and Dhamtari Resilience.

The recent climatic crisis across the globe has led to mass production of visual documentation that aims at expressing ecological pain to specifically agrarian societies, which end up in an underprivileged or marginalized position (Unjan et al., 2017; ResearchGate, 2021). Here in this expanding visual space, the Dhamtari district of Chhattisgarh has been a popular destination of the news about drought, harvest failure, and the rural precarity (CG Climate Centre, 2018; The Statesman, 2024). Dhamtari is a famous climate sensitive agro-ecosystem located in Chattisgarh Plains Zone that is one of the areas to which the rice crops would have to face severe climatic reductions in the future (ResearchGate, 2024), not

to mention India. Their daily encounters with its small paddy farmers who are living at the mercy of the fluctuating monsoon seasons, diminishing water sources and constant loss of harvests are, in most aspects, aestheticized to the audience across the entire world in the most aestheticized tone of climate crisis photography (Kuey Journal, 2023).

Although these images are typically constructed based on the humanitarian intentions, they are typically based on the already existing representational logics of the colonial archives in which the rural subjects used to be historically defined as powerless, passive or even silent (Joyce, 2011; Said, 1978). The modern rhetoric of sustainability (when NGOs campaign or the media in the entire world) is more likely to play into such visual ideologies subconsciously by simplifying complex socio-ecological reality into emotional images of powerlessness (Nagrare & Kumari, 2023; Granthaalayah, 2023). These are disguised by the high ecological literacy, capacity to make choices and innovations that are community-based which are dominant in agrarian life in Dhamtari.

The report mentions how the forms of climate imagery constitute and create the identity, agency and vulnerability of small-scale paddy farmers in Dhamtari. It said that the hegemonic aesthetical language was focused on the cracked soil, deserted horizon, and hopeless glances, repeats the colonial visual conditions that turned farmers into victims and not the ecological decision-makers and knowledge-bearers (Spivak, 1988; Bhabha, 1994). In contrasting the visual regime and the history of documented solutions to the region by the farmers, the report will show how the new visual tropes simplify the actual working of agriculture but restrict thinking and agenda of the policy makers in limiting ways.

The big paradox between the two parallel realities is created. To some degree, it has a factual story, which presupposes the further emphasis on the environment: a decrease in the yearly amount of precipitation, an augmentation of variability of the monsoon, amplified losses of groundwater, and enhanced frequency of droughts in the future (Unjan et al., 2017; PIB, 2022; IJARIIT, 2018). The farmers in this story are largely the ones affected by the change of climate and the unbalanced development. Conversely, there is a possibility to have an active grassroot reality, which is agro forestry diversity (ANS Foundation Journal, 2014), medicine and ecology (Govt. Girls College Study, 2021), the women-led system of agriculture (PARI, 2023), and collective water governance (perhaps the most famous example being the Parastarai model which was able to reverse or even invert the process of groundwater depletion) (The Statesman, 2024; IndiaTV News, 2024). The practices focus on a subtle sense of vulnerability and resilience, which cannot be found in the visualization of mainstream climate (Guardian, 2023; Gill, 2023).

This is based on the postcolonial theory, visual semiotics, and sustainability communication, which are the subsequent parts that challenge the representational politics of image of climate. The current report provides a critical model of ethical visual narrative of the climate age basing on the analysis of particular ecological and social facts in Dhamtari. Finally, it proposes another approach to decolonial visual practice that expects farmer resilience, indigenous ecological knowledge, and community-led innovation or that responds to climate communication with SDG 2 (Zero Hunger) and SDG 13 (Climate Action), SDG 15 (Life on Land).

Theoretical Frameworks: Deconstructing Representation through Postcolonial and Visual Lenses

In order to critically examine the visual image of small-scale paddy farmers in Dhamtari, such a multi-layered theoretical framework is essential, which combines the results of the Postcolonial Theory, Visual Culture Studies, and Sustainability Communication. Such fields provide analytical tools with which to analyse not only what is depicted in photographs but the ideological frameworks and relations of power that guide the production, circulation, and meaning of images. Instead of relying on photographs as unbiased representations of the reality, this framework views the photographs as the artefacts that are culturally coded and placed in the historical and political systems of meaning.

Postcolonial theorists have been arguing since time immemorial that colonial knowledge systems are still influencing the way modern representational practices are maintained thus continuing to perpetuate hierarchies of who can see and be seen (Said, 1978; Joyce, 2011). The concept of Orientalism presented by Edward Said offers a starting point in terms of understanding how the Global South has long been exotic, backward, or lacking in comparison to the West. In photography, this is reflected in the visual conventions that objectify the rural subjects making them cultural artefacts as opposed to active agents (Spivak, 1988). These patterns of representation are persistent in modern sustainability discourse, where an urban or Western gaze perceives images of rural India as a homogenised idealised image of the village disregarding internal differentiation of caste, class and gender (Chaudhary, 2021; Gupta, 1998).

Based on Said, the claim of Gayatri Spivak that the subaltern cannot speak explains how the hegemonic discourses silence the marginalised discourses on a systematic way (Spivak, 1988). This silencing is evident in the photographic coverage of climate crisis, whereby outside forces, such as NGOs, journalists, campaign strategists exert the visual agenda, and leave little room to the farmers to construct their own meanings about ecological transformation. Captions, headlines, and stylistic representations serve as commentary, which holds authority and in effect exterminates the indigenous knowledge systems like soil interpretation procedures, customary irrigation rationales, and ecological decision-making. Homi Bhabha, in her theory of hybridity, makes these binaries difficult to understand by claiming that postcolonial identities and modernities take negotiated positions as opposed to absolute ones (Bhabha, 1994). The ethnographic report of Akhil Gupta also shows that the relations of farmers with technology and ecology are not simplistic and can be interpreted in terms of being either traditional or modern (Gupta, 1998). These agrarian epistemologies in hybrid form are never reflected in exterior images that represent only farmers as passive bystanders of development or climate change.

In addition to the postcolonial criticism, Visual Culture Studies lays stress on the idea that photographs are no neutral window looks into the world but a culturally coded signifier that constitutes a collective interpretation (Barthes, 1977). The difference between the denotation (the literal meaning of an image) and the connotation (the ideological meaning of the image) by Roland Barthes offers a strict semiotic framework of analysing climate imagery. In the example given, a picture of a farmer with dry dirt implies a simple act, but conveys the meaning of despair, passivity or helplessness as an ecological system, or interpretation based on cultural and historical discourse instead of deep-rooted empirical reality. This analysis is further detailed in the work of Kress and van Leeuwen which proceeds to define three metafunctions of images: Representational (how the image constructs reality), Interactive (how the image places the viewer through gaze, angle and distance) and Compositional (how salience, framing and layout make sense). These instruments allow a micro level study of how seemingly harmless aesthetic decisions, including framing a farmer in a deserted landscape, recreate the stories of pain and peripherality.

Lastly, Sustainability Communication field discloses the mobilisation of these practices in institutions and political establishments, through representations. Imagery is one of the key processes in which climate change is conveyed but studies indicate that emotionally appealing images tend to revert to victimisation norms to create sympathy, or raise funds (O'Neill and Nicholson-Cole, 2009). Such a focus on the effect may result in contextual simplification where complex social ecological processes are simplified into symbolic meaning of powerlessness. NGOs and development agencies abroad have a heavy influence in creating these narratives and tend to filter the images accordingly to satisfy the expectations of the donor or the priorities of the global climate discourse (Nixon, 2011). As a result, the hyper-visibility of suffering takes place, and resilience, innovation, and community-led adaptation become peripheral issues in social conversation. The notion of slow violence by Nixon (2011) is especially applicable to the fact that the harms that might stem on an individual level, the depletion of groundwater, among others, are hardly noticeable, and they do not fit into the dramatic visual grammar commonly favored in mainstream climate communication.
Through synthesising postcolonial theory, visual semiotics, and sustainability communication, this report offers an analytical base in terms of understanding how climate crisis photography in Dhamtari serves as a site of meaning making that is contested. These frameworks indicate that visual narratives do not only reflect but also construct the broader knowledge about climate vulnerability, farmer identity, and ecological justice.

The Environmental Imperative: Dhamtari Region Agricultural Landscape Vulnerability in Numbers.

The argument that the images of the climate crisis are subject to downplaying the actualities that farmers in Dhamtari have to deal with, downgrading them to victimized and short-sighted imagery, becomes believable when analyzed in relation to the measurable signs of environmental stress. The ambiguity, paucity, and periodic loss that were pointed out in the abstract are not only subjective perceptions; rather, they are supported by a hundred years of climatological data, hydrological data, and agricultural survey data. Dhamtari is also considered to be one of the most drought-affected areas in Chhattisgarh, along with Mahasamund and Raigarh, which is why it functions as a symbolic reflection of the agrarian crisis that is taking place in the area (Mahesh et al., 2018; Unjan et al., 2017).

In Dhamtari, 58 moderate drought and eight severe droughts have been recorded in a 110-year study of climatology of

drought (Mahesh et al., 2018). This means that water scarcity cannot be considered as an event that occurred recently but as an increasingly chronic one. Drought years in the post-global-warming years of 1971-2010 were also heavily increased and, thus, a direct correlation is possible between the past climatic trends and the present-day climate change (Unjan et al., 2017). This granularity in time is often not found in visual stories where drought is more commonly represented as a fast disaster or a sudden one than as a cumulative structural process.

The increase in the frequency of droughts is linked to great long-term variability on the precipitation. Over the last century, Dhamtari has already seen a 23 5 -percent decrease in the annual precipitation with averages decreasing to 1043.0 5 mm (19712010) compared to 1355.3 5 mm (19311970). The southwest monsoon vital to the kharif paddy crop fell by 21 percent whereas inter-annual variability rose by 22 percent to 24 percent (Unjan et al., 2017). Any small changes in rainfall in the mostly rainfed agricultural systems can interfere with the conventional arrangement of crop programs, put the latter under water stress, and increase vulnerability to socio-economic factors.

These are further increased by projected climatic forecasts. According to climate-simulation models, climate-Chhattisgarh-Plains-Zone the project will result in a decrease of rice production to 68 percent of the present rates in 2070 under high-emission conditions (ResearchGate, 2024). The upward sloping curve of agrarian vulnerability indicated by these prospective evaluations can be used to understand why such surface imagery in terms of crusted soil or stunted crops does not provide the systemic permanence of these dangers over time.

The ecological pressure increases when groundwater dynamics is taken into consideration. Canal irrigation is seasonal after the monsoon making groundwater the major source of water during the winter and summer crop seasons. The share of the land irrigated using groundwater in Dhamtari increased three times in 1991 and 2011 to 29.8 (ScienceDirect, 2017). The district is included in the list of most under stress zones concerning groundwater resources in India by the national assessments though it is located not far away from the major irrigation projects, including the Gangrel Dam (The Statesman, 2024; IndiaTV, 2024). Hydrological activities reported that the groundwater table recorded a depth of 27.10 0m as of May 2015, implying that the aquifer was severely depleted (IJARIIT, 2018). Despite the fact that the annual groundwater availability in the district is 3.72 BCM, domestic and industrial demands which are projected to take 2.42 BCM of ground water in the next 25 years have failed to allow sufficient buffer to support the irrigation growth. Since irrigation water and drinking water in Chhattisgarh are supplied more than 65% and 85% by groundwater, groundwater depletion presents a twofold menace to agriculture and human health.

These are the harsh environmental stresses that have socio-economic effects well-explained by the statistics of crop-losses. An investigation of 6,615 of the marginal farmers found out that over 60 percent of them faced significant losses in crops last year due to extreme weather conditions, and half of the paddy farmers lost more than two-thirds of their yearly harvests over the last five years (Business Standard, 2024; TRIF, 2024). The catastrophic economic impact of climate variability among farmers whose holdings are only 0.38 has would mean that the recurring losses will add up to 72 per cent income for farmers.

Indicator	Metric	Data Point
Drought Frequency	Total Drought Years (1901-2010)	58 [18]
	Large Drought Years (1901-2010)	20 [18]
	Severe Drought Years (1901-2010)	8 [18]
Rainfall Changes	Annual Rainfall Decline (1931-2010)	23% (from 1355.3 mm to 1043.0 mm) [4]
	Southwest Monsoon Rainfall Decline (1931-2010)	21% (from 1191.8 mm to 936.7 mm) [4]
Groundwater Status	Region Facing Severe Depletion	Yes (listed among India's 150 such

		regions) 32 40
	Irrigated Area Increase (1991-2011)	Tripled (from 7.9% to 29.8%) 2
	Deepest Water Level (May 2015)	27.10 m below ground level 16
Projected Impact	Potential Rice Yield Loss (by 2070)	Up to 68% (under RCP 8.5 scenario) 28
Crop Loss (Pan-India)	% of Paddy Farmers Losing >50% Crops	50% (over the past 5 years) 20

Taken together, all these empirical signals, including increased frequency of long-term drought, reduced monsoon stability, faster groundwater extraction and massive crop damage, create a scientifically based description of a region experiencing extreme environmental pressure. Though the ecological crisis imagery often anticipates the dramatic and eye-catching cues, like dry fields or dried-up landscapes, these visual discourses do not reflect the structural, historical, and multidimensional nature of the ecological crisis in Dhamtari. Paradoxically, through its belittlement, such imagery turns out to blur the hydrological, meteorological, and socio-economic systems it is through which vulnerability is created in the beginning.

In order to capture the environmental imperative in Dhamtari, there is need to shift the representation of the environment beyond symbolic representations to data-driven and contextualized vision of vulnerability. It is a crucial practice in ethical visual storytelling and also in building more effective climate policy and climate-justice advocacy.

Farmer Agency in Practice: Indigenous Knowledge Systems and Community-Led Adaptation

Even though statistical data form the picture of environmental vulnerability in Dhamtari, too, it is one of the elements of the socio-ecological situation of the region. The full and lively narrative of farmer agency, native ecological knowledge, and collective adaptation is another important point, which is hardly taken into consideration in the popular climate crisis photographic work. Grassroots activities challenge the passive victimhood idea so eminent in the visual representation of rural India. In contrast to those who passively take outside aid, the small-scale farmers of Dhamtari are capable of negotiating, innovating, and redesigning their farming systems on account of climatic and hydrological stress.
One of the most curious cases of such an agency, which have been developed as a reaction to the extreme depletion of groundwater, is the Parastarai village model. The village realized that the local aquifers were being drained through intensive paddy farming and it was therefore formally prohibited that winter (Rabi) paddy farming until only on the basis of once per year cultivation of paddy. This was not really a symbolic but a strict community-based regulation, which was supported with fines of 27,000 per acre in case of unapproved cultivation and an additional 37,000 per acre in the event of untimed water overflow onto neighboring fields. This shift to less sustainable alternatives to high-MSP paddy, as well as afforestation and plastic the ban, led to measurable gains in groundwater levels, which removed Dhamtari off the list of endangered groundwater in India in 2024. This model was successful to the extent that the district hosted the International Water Conference, the Jal Jagar Maha Utsav, which is also a pointer that the model is considered as a national model of community-based sustainability. It is not a victimhood, but is an account of collective rule, environmental vision, and adaptability.
Traditional Knowledge Systems / Indigenous Knowledge Systems provide a very wide array of systems used by farmers in Dhamtari, such as Beyond Parastarai, to build ecological resilience. Agroforestry in this respect is an important aspect of land-use at the locality ANS Foundation Journal, 2014. On-farmers have been providing boundary plantation such as Terminalia arjuna to Acacia nilotica, horti-silvicultural system, consisting of mango orchards and mixed fruit with trees, and silvi-pasture models, where trees and fodder grasses are integrated to supply livestock with food all year round. Kitchen gardens typically located near households are established with numerous varieties of vegetables, fruit trees, and medicinal plants such that they not only enhance nutritional worth of household but also the financial state of affairs. These practices are highly ecologically literate: to lessen the effects of climate shocks, to boost soil fertility, to boost the biodiversity, and to have more than a single revenue stream other than the climate-dependent paddy economy, the farmers

reduce the number of species.

Another area where indigenous knowledge interconnects with is that of traditional medicine and ethnobotany. It was reported that the Nagri block study utilized 140 medicinal plant species by the tribal people with the help of such practitioners as Vaidyas who has a great deal of botanical knowledge (Govt. Girls College Study, 2021). The abundance of ecological data available in the local health institutions is reflected in the variety of herbs available, including Harjor in bone fracture, Guduchi in jaundice, Amla in dyspepsia. This is the knowledge which was passed down from generation to generation, which rejects images of rural societies as either ignorant or untaught individuals.

The ethos of seed sovereignty also represents Farmer agency. The prizes that include the Plant Genome Saviour Farmer Award given to farmers in the surrounding areas are such that a broader regional culture of preserving indigenous paddy varieties, tubers, and fruits is still functional in practice (Times of India, 2016). Worryingly, research by Nagri shows that there is a loss of genetic diversity of aroma rice with over 97 percent of farmers reporting a decline in farming area (Aroma Rice Economics Study, 2009). This fact underlines the need and urgency of farmer-led conservation in particular at this moment when monoculture and commercial seed regimes dismantle the agrobiodiversity.

The adaptation landscape in Dhamtari is another factor which technological and institutional innovations shape. The program MGNREGA-EB introduced 87 Water User Groups in the Kurud block and enables farmers to share irrigation resources based on participatory governance through which the Gram Sabha accepts. This was described in the GIZ Synopsis in 2021. At the district level, Dhamtari received the Prime Minister Excellence Award in 2023 within the category of GIS-based water conservation planning system, mapping the aquifer profile, monitoring the behavior of water structures, and the areas of intervention priority. In this regard, Times of India reported in 2024. Some results of such initiatives have been expressed as rejuvenation of 26 Amrit Sarovars and 156 rainwater harvesting facilities, augmentation of agricultural production, and improvement of climate resilience.

Adaptation at the individual level also occurs. According to the Survey findings of the Chhattisgarh Plains 68.33 percent of farmers delay their sowing and 70.41 percent increase their seed rates, when rainfall is scanty- decisions made on the basis of the experience of living and risk response. Importantly, women come at the centre in such adaptive systems. One such example related to gender and agricultural work is that of Shubhadra Sahu who is a contractor-leader of Baliyara village. Being at the helm of a group of 30 females and earning 4000 rupees per acre, she says she needs to work in the most vivid manner possible: If we do not work, then how are we going to survive? Her authority is strong, self-put, and economically autonomous (qualities that the mainstream climate images can hardly signify).

These examples, collectively, of village-wide bans on cultivation, agroforestry, ethnobotanical knowledge, of participatory irrigation governance, of women labor collectives, point to a rich landscape of community-based adaptation and ecological savvy. These facts are quite opposite to the simplistic images of passive suffering that tend to be reproduced in the photography of the climate crisis. A decolonial strategy of visualizing should thus acknowledge and accentuate such forms of agency that people live by, and by which people should be viewed not only as the victims of environmental pressures but as the architects of resistance and sustainability.

Visualizing Resistance: A Semiotic Analysis of Dominant and Decolonial Imagery

The above analysis demonstrates a deep disjuncture between the dominant visual narrative of crisis and the lived realities of resilience and adaptation in Dhamtari. This tension is not only thematic, but it is encoded within the very visual grammar of climate crisis photography. A semiotic analysis-drawing on Barthes' concepts of denotation and connotation (Barthes, 1977), Kress and van Leeuwen's visual grammar (Kress & van Leeuwen, 2006), and postcolonial critiques of representation (Said, 1978; Spivak, 1988)-demonstrates how symbols, framing, and composition build meaning and reproduce power hierarchies.

Dominant Tropes: Victim Framing, Exoticisation, and Eco-Romanticism

Mainstream sustainability communication often rests on visual tropes that form a kind of "visual rhetoric" that shapes public perceptions and policy responses. The most pervasive of these is victim framing, which relies on a dialectic between denoted (literal) and connoted (ideological) meaning. For example, a picture of a farmer seated in a cracked field creates a denoted meaning of a person in an arid landscape; however, at a connotative level, it implies helplessness, pity, and fatalism. This places the farmer as the passive sufferer of environmental forces, which then erases the complex adaptive strategies-agroforestry, seed conservation, and water management-which characterize agricultural life in Dhamtari (ANS

Foundation Journal, 2014; The Statesman, 2024).

A concept that relates closely to this is eco-romanticism, which aestheticizes rural hardship. Portraits of elderly farmers in dramatic framing or wide shots of barren fields romanticise the notion of suffering. These depictions are imbued with the same kinds of imagery and representation that have been utilized in colonial ethnographic photography, where rural subjects were configured as timeless, rather than dynamic agents of change (Joyce, 2011; Said, 1978). Eco-romanticism converts lived realities into a cultural artefact, making farmers symbols of "authentic rurality" instead of participants in real and continuous ecological negotiations.

Both tropes have a common flaw: they reinforce the silencing of the subaltern as elaborated by Spivak 1988. The farmer's gaze, often averted, downcast, or directed toward some undefined horizon, structures the viewer's relation to the image. Such a perspective reinforces a visual hierarchy in which the photographer (and by extension, the audience) holds a position of authority, while the subject becomes an object of observation (Chaudhary, 2021).

Semiotic Mechanisms of Power

Kress and van Leeuwen's framework help explain how dominant images achieve these ideological effects:

1. Interactive meaning: The photographer decides on gaze, angle, and distance in order to determine how the subject is viewed. A low-angle shot of a burdened farmer can infantilise; an extreme close-up of a weathered face increases emotional appeal.
2. Compositional meaning is when farmers are placed off-centre, dwarfed by huge expanses of barren land. Salience shifts here from human agency to environmental devastation; the landscape is made to be the protagonist and the farmer incidental.
3. Representational meaning: Actions, tools, and cooperative activities usually get left out, reinforcing the idea of isolation and helplessness.

These are visual decisions rarely made by accident. They serve institutional goals, such as creating donor empathy or amplifying the urgency of climate narratives.

Decolonial Imagery: Reframing Agency, Collaboration, and Context

A decolonial visual practice would radically reconfigure such semiotic codes to depict instead the collective agency, decision-making, and ecological intelligence of people rather than isolated victims.

Instead, a decolonial photograph could show Shubhadra Sahu, the contractor-leader from Baliyara, instructing her team of women labourers in a paddy field, rather than a lone farmer in the parched field: PARI 2023. Here:

1. The interactive meaning changes: her direct, assertive gaze puts her in the position of agent, not object.
2. The compositional meaning focuses on collective labour instead of solitary suffering.
3. The representational meaning emphasizes leadership, skill, and community resilience.

Such an image challenges the victim trope by illustrating lived, embodied agency.

Likewise, the Parastarai water governance model offers a rich tapestry for decolonial visual storytelling. A photograph of a village meeting-farmers gathered around maps discussing water-use fines and crop regulations-would highlight the political and social dimensions of adaptation. India TV News 2024; The Water Digest 2024. Farmers could be elevated as decision-makers through composition that reverses common hierarchy-the humans, rather than the landscape, are at the visual centre.

For such visual strategies, powerful precedents may be offered by contemporary photographers like Gauri Gill. While photographing farmer protests, Gill documents an architecture of resistance—sites, structures, and tools—without using human subjects to perform suffering (The Guardian 2023). An analogous approach in Dhamtari might concentrate on newly constructed Amrit Sarovars, seed banks, agroforestry plots, or water structures as material embodiments of resilience and ingenuity.

Participatory and Indigenous Aesthetics as Decolonial Method. The actually decolonial image practice goes beyond what is photographed to how photography is produced.

This includes:

1. Participatory photography workshops, which allow farmers to document their experiences and perspectives themselves.
2. Co-authoring captions which allow meaning to emerge collaboratively rather than be imposed from outside (Spivak 1988).

Indeginous visual languages, including Gond, Warli, or Madhubani motifs inlaid as aesthetic choices honoring the local cosmologies and ecological worldviews. Govt. Girls College Study 2021. For example, a photograph of a Gond Vaidya gathering medicinal herbs could foreground expertise and cultural knowledge through composition and stylistic framing, challenging reductive notions of rural ignorance. Such images do more than avoid harmful stereotypes-they affirm indigenous epistemologies and narrate resistance visually.

Towards a Visual Archive of Resilience

The goal of decolonial visuality is to create a visual archive that captures the complexity, hybridity, and resilience of agrarian life in Dhamtari: an archive that acknowledges both the challenges posed by climate change and the innovative, collective responses that farmers deploy. In doing so, it resists the flattening force of dominant crisis imagery and honours the people whose lives and knowledge systems are too often misrepresented.

Conclusion

Towards Ethical and Just Climate Communication Narratives

In sum, this research report has shown that climate crisis photography involving small-scale paddy farmers in Dhamtari often reproduces postcolonial visual structures that flatten complex lived experiences into narrow narratives of suffering and helplessness. By framing farmers primarily as passive victims of drought and environmental decline, dominant imagery obscures the multifaceted socio-ecological challenges they confront and erases the depth of their knowledge, innovation, and resilience. Such representational patterns are not merely aesthetic choices but manifestations of entrenched power dynamics in sustainability communication, where external institutions-particularly NGOs and international media-frequently shape visual narratives to align with donor expectations, advocacy goals, and fundraising imperatives (O'Neill & Nicholson-Cole, 2009; Spivak, 1988). This selective visibility marginalises precisely the forms of local adaptation and indigenous ecological knowledge that are vital to long-term climate resilience.

This report also draws out a powerful counter-narrative emanating from Dhamtari's very agricultural and social practices. For instance, a model of community-led groundwater governance in Parastarai, quoted in The Statesman in 2024; the profusion of agroforestry systems from the ANS Foundation Journal in 2014; the conservation of traditional seed varieties in Times of India, 2016; the rise of women leading agricultural labour from PARI, 2023-all stand out as testimony to a vibrant landscape of grassroots agency. These practices disrupt the reductive assumptions in dominant visual tropes, revealing a far more complex reality-vulnerability and resilience entwined, and adaptation as an offshoot of local ingenuity, not external intervention. A decolonial approach to the ways in which we tell stories visually is thus not a matter of choice but of ethical obligation, demanding a basic reorientation in the ways we see, depict, and understand communities at the front lines of climate change.

These bring out some actionable recommendations toward more ethical and just climate communication: First, farmers' narratives have to be centered; this means communicators should move away from observational photography toward participatory visual methods like co-created storytelling, community photography workshops, and collaborative captioning that give farmers control over their representations. This is well captured by Kuey Journal (2023) and Spivak (1988). Secondly, in this manner, visual communication has to shift away from victimhood narratives toward one of agency. It has to highlight stories, such as the water governance model followed at Parastarai, as examples of collective resilience and innovation. The Water Digest (2024); IndiaTV News (2024). Thirdly, de-colonial ethics for a photographer/institution imply taking informed consent and avoiding exoticised or intrusive imagery, and indeed providing cultural and ecological context that honours the dignity and expertise of the subjects. Gauri Gill; Joyce, 2011. Finally, agency-focused imagery has to be integrated into the climate policy discourse: from government reports and sustainability frameworks to international conferences. PARI (2023); The Statesman (2024).

In the end, embracing a decolonial visual practice empowers sustainability communication to serve its aims related to transformation more completely. Representation can indeed be a fundamentally ethical act that does not merely avoid harm but furthers climate justice: it gives voice to those most affected, validates indigenous ecological knowledge, and depicts varied pathways through which communities build adaptive capacity. Such a perspective aligns directly with the goals of the Sustainable Development Goals-particularly SDG 2 (Zero Hunger), SDG 13 (Climate Action), and SDG 15

(Life on Land)-by furthering an imagination of climate action underpinned by equity, respect, and shared knowledge. But as we reframe how the farmers of Dhamtari are looked upon, so too do we reframe what kinds of climate futures might be imagined-and by whom.

REFERENCES

A. Peer-Reviewed Journal Articles & Books with DOIs

1. O'Neill, S. J., & Nicholson-Cole, S. (2009). "Fear won't do it": Promoting positive engagement with climate change through visual and iconic representations. *Science Communication, 30*(3), 355–379. https://doi.org/10.1177/1075547008329201

2. Lehman, B., Thompson, J., Davis, S., & Carlson, J. M. (2019). Affective images of climate change. *Frontiers in Psychology, 10,* 960. https://doi.org/10.3389/fpsyg.2019.00960

3. Hahn, U., & Berkers, P. (2020). Visualizing climate change: An exploratory study of the effectiveness of artistic information visualizations. *World Art, 11*(1), 95–119. https://doi.org/10.1080/21500894.2020.1769718

4. Mooseder, A., & Brantner, C. (2023). (Social) media logics and visualizing climate change: Ten years of #climatechange images on Twitter. *Social Media + Society, 9*(1). https://doi.org/10.1177/20563051231164310

5. Agroforestry systems practiced in Dhamtari district of Chhattisgarh, India. (2016). *Journal of Applied and Natural Science, 8*(4), 2331–2336. https://doi.org/10.31018/jans.v8i4.1052

6. Mahesh, Y., Sastri, B., & others. (2018). Studies on drought climatology of different districts of Chhattisgarh in the backdrop of climate change. *International Journal of Current Microbiology and Applied Sciences, 7*(11), 244–252. https://doi.org/10.20546/ijcmas.2018.711.031

7. Srivastava, P. K., et al. (2021). Long-term trend analysis of precipitation and extreme precipitation indices. *Water, 13*(12), 1695. https://doi.org/10.3390/w13121695

8. Nixon, R. (2011). *Slow violence and the environmentalism of the poor.* Harvard University Press. https://doi.org/10.4159/harvard.9780674061194

9. Nykiforuk, C. I. J., Vallianatos, H., & Nieuwendyk, L. M. (2011). Photovoice as a method for revealing community perceptions of the built and social environment. *International Journal of Qualitative Methods, 10*(2), 103–124. https://doi.org/10.1177/160940691101000201

10. Carlson, J. M., Kaull, H., Steinhauer, M., Zigarac, A., & Cammarata, J. (2020). Positive images of climate change solutions capture attention. *Journal of Environmental Psychology, 71,* 101477. https://doi.org/10.1016/j.jenvp.2020.101477

11. Westengen, O. T., Dalle, S. P., & Mulesa, T. H. (2023). Navigating toward resilient and inclusive seed systems. *Proceedings of the National Academy of Sciences, 120*(14), e2218777120. https://doi.org/10.1073/pnas.2218777120

12. McGuire, S. (2016). Seed systems smallholder farmers use: Findings from a multi-country study. *Food Security, 8*(1), 92–104. https://doi.org/10.1007/s12571-015-0528-8

13. Anderson, K., et al. (2023). A systematic methods review of Photovoice research. *International Journal of Qualitative Methods.* https://doi.org/10.1177/16094069231172076

14. Fantini, E., et al. (2017). A review of Photovoice and similar participatory visual methods. *WIREs Water, 4*(2), e1226. https://doi.org/10.1002/wat2.1226

15. Leiserowitz, A. (2006). Climate change risk perception and policy preferences: The role of affect and imagery. *Global Environmental Change, 16*(6), 689–700. https://doi.org/10.1016/j.gloenvcha.2005.12.005

16. Carlson, J. M., et al. (2022). Attention bias modification increases attention to climate change. *Climatic Change, 170*(3–4). https://doi.org/10.1007/s10584-021-03297-8

17. Buening, R., et al. (2022). How visual art might nurture environmental consciousness. *Frontiers in Ecology and the Environment.* https://doi.org/10.3389/fenvs.2022.XXXXX *(use actual DOI if available)*

18. Forceville, C. (1999). Educating the eye? A review of Kress and van Leeuwen's *Reading Images*. *Journal of Visual Literacy, 19*(2), 85–92. https://doi.org/10.1177/096394709900800204

19. Mahadevan, S. (2013). Notes on the material and vernacular cultures of photography in India. *Trans-Asia Photography Review, 1*(4). https://doi.org/10.1215/21582025-1-4-103

20. Schäfer, M. S., et al. (2023). News and social media imagery of climate change.

ADDITIONAL DOI-BEARING SOURCES

21. DiFrancesco, D. A., & Young, N. (2011). Seeing climate change: The visual construction of global warming in Canadian national print media. *Cultural Geographies, 18*(4), 517–536. https://doi.org/10.1177/1474474010382072

22. Manzo, K. (2010). Imaging vulnerability: The iconography of climate change. *Area, 42*(1), 96–107. https://doi.org/10.1111/j.1475-4762.2009.00887.x

23. Smith, N. W., & Joffe, H. (2009). Climate change in the public mind. *Public Understanding of Science, 18*(4), 411–426. https://doi.org/10.1177/0963662507081249

24. O'Neill, S., Boykoff, M., Niemeyer, S., & Day, S. A. (2013). On the use of imagery in climate change engagement. *WIREs Climate Change, 4*(1), 73–87. https://doi.org/10.1002/wcc.164

25. Hopke, J. E. (2012). Hashtagging politics: #climatechange on Twitter. *Social Science Computer Review.* https://doi.org/10.1177/0894439312467520

26. Painter, J., & Ashe, T. (2012). Cross-national comparison of mass media coverage of climate change. *Global Environmental Change, 22*(1), 37–46. https://doi.org/10.1016/j.gloenvcha.2011.10.009

27. Bennett, E., et al. (2022). Farmers' climate adaptation strategies in central India. *Climate and Development.* https://doi.org/10.1080/17565529.2022.2035522

28. Dubey, S. K., et al. (2016). Groundwater status and recharge trends in central India. *Environmental Earth Sciences, 75*, 1408. https://doi.org/10.1007/s12665-016-6234-2

29. Pandey, A., et al. (2017). Hydrological vulnerability in Chhattisgarh agroecosystems. *Hydrological Sciences Journal, 62*(6), 915–927. https://doi.org/10.1080/02626667.2016.1273001

30. Evans, L., Milfont, T. L., & Lawrence, J. (2014). Considering local adaptation increases willingness to respond to climate change. *Global Environmental Change, 25,* 69–75. https://doi.org/10.1016/j.gloenvcha.2014.01.013

31. Hart, P. S., & Feldman, L. (2016). Images, emotions, and climate change messaging. *Science Communication, 38*(4), 415–441. https://doi.org/10.1177/1075547016655357

32. Corner, A., Roberts, O., Chiari, S., et al. (2015). How do young people engage with climate change imagery? *Environmental Education Research, 21*(1), 1–17. https://doi.org/10.1080/13504622.2013.833595

33. Leiserowitz, A., et al. (2011). Global warming's six Americas. *Yale University Report.* https://doi.org/10.2139/ssrn.2779385

34. Lertzman, R. (2015). *Environmental melancholia: Psychoanalytic dimensions of engagement.* Routledge. https://doi.org/10.4324/9781315763844

35. Mirzoeff, N. (2014). Visualizing the Anthropocene. *Public Culture, 26*(2), 213–232. https://doi.org/10.1215/08992363-2392099

36. Tsing, A. (2005). *Friction: An ethnography of global connection.* Princeton University Press. https://doi.org/10.1515/9781400830596

37. Sultana, F. (2022). The unbearable heaviness of climate coloniality. *Political Geography, 99.* https://doi.org/10.1016/j.polgeo.2022.102638

38. Chakrabarty, D. (2009). The climate of history: Four theses. *Critical Inquiry*, *35*(2), 197–222. https://doi.org/10.1086/596640

39. Ghosh, A. (2016). *The Great Derangement: Climate change and the unthinkable.* University of Chicago Press. https://doi.org/10.7208/chicago/9780226323039.001.0001

40. Butler, J. (2009). *Frames of war: When is life grievable?* Verso. https://doi.org/10.5040/9781472542138

C. NON-DOI SOURCES

- Barthes, R. (1981). *Camera Lucida: Reflections on Photography.* https://monoskop.org/images/c/c5/Barthes_Roland_Camera_Lucida_Reflections_on_Photography.pdf
- Said, E. W. (1978). *Orientalism.* https://www.penguinrandomhouse.com
- Spivak, G. C. (1988). Can the subaltern speak? https://jan.ucc.nau.edu/~sj6/Spivak%20CanTheSubalternSpeak.pdf
- CGWB (2015). *Ground Water Yearbook: Chhattisgarh.* http://cgwb.gov.in
- The Hindu (2024). Report on Parastarai village. https://www.thehindu.com
- NITI Aayog (2022). Climate vulnerability reports. https://www.niti.gov.in