CHAPTER 2

Decoding uncertainty in pastoral contexts through visual methods

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Introduction

Pastoralists in popular culture have long been flattened, rendered in word and image as primitive, stuck in time; at once romanticized and vilified. In reality, pastoralist systems are highly adaptable and defy easy categorization, varying widely across and within regions. One commonality, however, is the presence of uncertainty. Pastoralists around the world constantly face and respond to the unknown and unexpected, from floods and droughts to locust plagues and market collapse (Chapter 1). Our work across six countries employed a variety of visual methods to surface and convey this diversity of experience.[2]

Since its invention in 1839, the camera has most often served as a tool for the elite (Berger, 1980). Its early use in police investigations, war reporting, and anthropological records was predicated on the belief that photography carries an incontrovertible truth. A photograph is a 'trace, something directly stencilled off the real, like a footprint' (Sontag, 1977: 154).

This assumption of veracity and the treatment of cameras as objective tools of documentation contributed to the widespread (mis)use of photography by researchers without explicit consideration of the practices by which images are produced and interpreted. In recent decades, however, the social and power dynamics inherent to image creation and consumption have been better explored, resulting in the development of more nuanced and critical visual methods (Spiegel, 2020).

The visual practices used in the PASTRES programme aim to capture the lived experiences of pastoralists. Through photos, videos, and narratives,

the stories are largely told from the vantage point of pastoralists who are confronting diverse uncertainties. Storytelling through visual methods facilitates an engaged process of building knowledge that can eventually foster positive social change from below. In our work, it enabled pastoral communities to contribute experiential knowledge, providing an embedded understanding of uncertainty.

As a part of a broader agenda of community participation, stories shared through visual methods can help build critical consciousness to construct and forge knowledge and take action (Freire, 1970). Forging knowledge of place and facilitating engagement with local traditions and cultures can open a democratic space for dialogue among various climate actors. This provides an opportunity to support inclusion of local knowledge in policy, to systematize experience, and to draw out priorities for future actions.

Research design and methodological reflections

Visual tools for surfacing tacit and subjugated knowledge are increasingly used in a wide range of research activities, including in pastoral settings (Johnson et al., 2019). During the interaction, visuals provide a 'bridge' (Meo, 2010) that enables participants to converse about milieux that are very different from the researchers' own. The use of visual methods therefore helps the interaction between the researchers and the study participants. At a cognitive level, Pain (2012: 309) argues, 'because visuals use different parts of the brain than language, the two in combination could provide additional cues for understanding and encourage new connections between the two patterns of thought, thus facilitating new insights.'

This chapter reflects on a variety of visual methods selected to unpack multidimensional and evolving themes across a range of pastoral sites and therefore tries to make sense of the mangled, messy issues in different pastoral landscapes.

Photovoice

Letting go of 'researcher control' is itself an emancipatory approach. Visual tools collectively serve to centre the voices of pastoralists, inviting them to share beliefs and perceptions within their own frameworks of understanding and experiences of contending with unfolding uncertainties.[3] This embracing of the 'indigenous lens' helps orient the researcher to the intimate under-standing of how pastoralists contend with variability, whether in terms of climate and weather or in relation to changing governance and market regimes. Across the case studies, what emerged was new hybrid knowledge and understanding of uncertainty refracted through perspectives of caste, identity, race, gender, and age.

In Amdo Tibet in China, for example, groups were formed in both research sites – Kokonor and Golok – and included faith leaders, women, and men from

the Tibetan pastoralist community. In Isiolo, Kenya, one of the groups was composed solely of women of different ages, drawn from a mixture of social and economic circumstances to provide a distinct gender lens, while another was composed of younger men, offering an age-related perspective. In all sites, a diversity of views on how uncertainty as a concept was understood and how people responded to it was gleaned.

Visual methods help systematize local experience by appreciating participants' understandings of the local context and its socio-political and cultural elements. In Kenya, the methods led to a sense of empowerment among the participants, especially within the women's photovoice group. The participatory visual methods also help to lessen the power imbalance between the researcher and the photovoice group members, due to the collaborative nature of the method, which leads to the co-creation of evidence.

Due to the Covid-19 pandemic, digital media such as WhatsApp, Snapchat, and WeChat were used for remote facilitation of community-led methods, like photovoice, under lockdown. In Gujarat, India, this proved to be an effective method for a continuous conversation with the camel- and sheep-herders who travelled huge distances over the course of several months. In Amdo Tibet, China, remote conversation on these platforms helped the researcher to stay in contact with pastoralists (in both summer and winter pastures) in remote areas, with the exchange and dialogue continuing even during lockdown periods.

Social media ethnography

Pandemic-related travel restrictions disrupted the fieldwork of most researchers. Unable to carry out the photovoice exercises as initially conceived, the researcher in Tunisia observed images that proliferated in various pastoralist Facebook groups (Figure 2.1). This remote ethnographic approach shed light on diaspora networks and their sense of belonging. Across the sites, image

Figure 2.1 A collection of Facebook groups dedicated to Douiret in southern Tunisia. Members post archival photos, maps, poetry, obituaries, and live videos of sheep-shearing and olive-picking.
Credit: Linda Pappagallo.

Figure 2.2 Pastoralists fill jerry cans at the water pan in 1975 and 2020.
Credit: Gudrun Dahl (left), Goracha (right).

sharing on social media platforms offered insight into self-representation and reflected implicit ways of seeing.
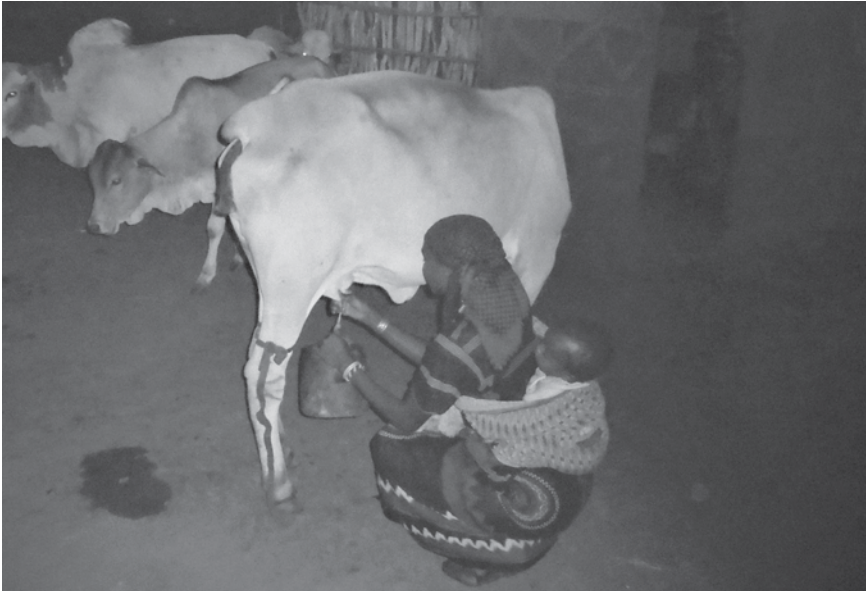
Rephotography

Visual materials from archival sources allowed for interpretations of change across time by comparing images from today with those in the past. This proved a unique way of understanding the changes in pastoralists' space, identity, and sense of place, along with the evolving dynamics of uncertainty.

In Kenya, for example, photographs of a water pan taken 45 years apart were compared (Figure 2.2). The observed deterioration of the water pan prompted a conversation around the lack of community solidarity and its implications. When elders engaged in the discussion, they reflected on the need to mobilize a response to protect the shared resource.

Photo elicitation

Pictures taken by the pastoralists and/or by the researcher were able to draw out reflections around themes that were not easily expressed. This process uncovered subconscious and tacit knowledge of the unreliability and unpre-dictability of their setting.

The articulation of emotions became important, allowing people to reflect on how perspectives had been subjugated for social and economic reasons. This in turn provided a richer understanding of the evolution of their livelihood, food security, shelter, displacement, and identity, relating these changes to both personal and community experiences.

Figure 2.3 A wealthy adult male pastoralist took this photograph to show a 'natural dinner' for children. Others perceived it differently.
Credit: Malicha.

The lack of uniformity in the reflections of individuals and groups, even within a given context, mirrored the differences in their contextual experiences, depending on the vantage points of their lived daily experience. One of the most telling examples is a photograph of a woman milking a cow with a baby on her back in the early evening hours (Figure 2.3). To a middle-aged, relatively rich man, the photo symbolized the opportunity for nutritious milk from livestock, while the same photo shown to a poor, young female elicited empathy for the women burdened by her daily chores without a helping hand, a situation that may adversely affect her time for childcare.

In uncertain contexts, photo elicitation thus helped to draw out and prompt an in-depth line of thinking and contemplation.

Photo elicitation allowed the pastoralists in Sardinia, Italy, to express themselves through images from their personal archives. For example, a sheep-herder shared an old photograph of a meal shared with fellow pastoralists after a sheep-shearing session (Figure 2.4). This evoked in him memories of solidarity and continuity with the core traditions of the community, which he identified as a strong foundation against the uncertainties brought in by the market and Covid-19 (see Chapter 5). The discussions in Sardinia – as in the other sites – brought out pastoralists' engagements with dealing with uncertainty, surfacing memories, meanings, and often deep emotions about their landscape and their linkages with a fickle market.

Figure 2.4 An old photograph of a meal shared after sheep-shearing in Sardinia, Italy. *Credit*: Giulia Simula.

The community validation of the findings from photovoice groups in Amdo Tibet, China similarly provided a moment for deeper, collective reflection on pastoralism, uncertainty, and development. The discussions brought meaning to the evidence when participants shared photos and their narratives with the researcher. These conversations added trustworthiness and rigour to the research analysis.

Documentary photo/video by researchers and other interlocutors

Embedded photography and videography carried out by researchers, community groups, and occasional professional documentary photographers chronicled pastoralist communities in the face of evolving uncertainties, showcasing special events and everyday lives.

Often these pictures and films showed efforts to preserve significant customs and cultural moorings. Photographs from Sardinia, Italy, showing festivals that were attended by pastoralists dressed in traditional attire, highlighted the social value of maintaining cultural identities as pastoralists in the face of rapid change. In the same way, a video documentary of a yak beauty competition in Amdo Tibet, China, highlighted the importance of social processes at the heart of pastoralism, as well as the aesthetic and cultural features of livestock-rearing. Pictures from Gujarat, India, taken by a professional photographer working alongside the researcher, provide a fresh positioning, offering representations of how the camel and sheep-herders grapple with daily uncertainties during their opportunistic journeys to different lands.[4]

In Tunisia, the researcher worked with a local filmmaker to visit pastoralists and film interviews. Reflecting on the role of the camera, she noted that while its presence contributed to a degree of performance, the interviews were largely unstructured, often resulting in an uninterrupted monologue meandering into topics and avenues that may not otherwise have come up.

Visualizing uncertainty

In each of the study sites, the visual material complemented other research tools such as interviews or surveys and helped to open up discussions, providing an opportunity to articulate local conceptualizations of uncertainty. Conversations around uncertainty can often veer into murky abstraction, but photographs helped to ground the discussions in lived experience. The following sections offer some brief examples of how photographs encouraged debate about understandings across the sites.

Borana, southern Ethiopia

When asked about the locust plague that arrived in Borana in 2020, one pastoralist responded '*Bofa dheedhiitti, buutii afaan buune*' ('When we attempted to flee from a *bofa* snake (less deadly), we were met with *butti* (the most poisonous snake)'). Photos of locust swarms (Figure 2.5) provided a focus for discussion around the meaning of uncertainty. In the Borana pastoralist communities of southern Ethiopia, pastoralists explained that many terms

Figure 2.5   Locust swarms in southern Ethiopia.
Credit: Masresha Taye.

are used to express uncertainty, including *hinbanne* (not known or unknown), *haala* or *jilbii hinbanne* (limited knowledge, not knowing the likelihood), and *mamii* (unexpected).

It is believed that rain follows locusts. However, in 2020, rains preceded the arrival of a small locust outbreak. This provided an ideal environment for locusts to multiply and, later, they wreaked havoc on newly planted crops and fresh grassland. Pastoralists explained that they reoriented their strategy to deal with the situation, but mobility – a key feature of the pastoral coping strategy – was halted to contain the spread of Covid-19. This combination of shocks devastated many pastoralists in Borana (see Chapter 7).

Amdo Tibet, China

Kokonor is a sacred lake on the Qinghai plateau in Amdo Tibet. In 2016, the lake began expanding, subsuming the winter pasture of many pastoralists. As Uncle Lhabe explained when describing the photo shown in Figure 2.6, 'That is my winter house, we spend most of our time there. Unfortunately, I lost my winter pasture and the house in 2019 due to the lake expansion. Now I need to rent pasture from other pastoralists, and I need to find a place to stay.'

Discussion of the lake expansion provoked many discussions of uncertainty. As noted in Chapter 4, the Tibetan phrase *Bsam yul las das pa* means something beyond one's imagination, beyond the realm of thought. It then

Figure 2.6 Uncle Lhabe looks out at his former winter pasture, now underneath the lake. *Credit*: Palden Tsering.

is unmeasurable, unpredictable, unexpected, and impossible to prepare for. The lake expansion was definitely in this category of experience. As another pastoralist explained, 'What is going to happen is unpredictable; all we can depend on is the present, what happens now, we deal with it now.'

During a photovoice feedback session in Kokonor, various interpretations emerged regarding the causes of the lake expansion. Some described the occurrence as the intended result of successful conservation efforts carried out by the government. Others pointed to religious reasons, saying it was the consequence of neglecting certain religious practices, such as releasing fish or failing to carry out the water-deity ceremony. Participants also identified climate change – marked by increased temperatures, melting glaciers, and changing precipitation levels – as a contributing force. Discussion of the photos collected by the men's and women's photovoice groups allowed the community to reflect on the different causes and consequences of the lake expansion, and the impacts on pastoralists' lives of the uncertainties.

Isiolo, northern Kenya

Ali Saleisa, a resident from Merti in Isiolo County, northern Kenya, shared images of his dead goats, which he had photographed to seek compensation for losses (Figure 2.7). The photographs embody intersecting uncertainties faced by pastoralists in the region: wildlife attacks, the impact of

Figure 2.7 Goats lost to a lion.
Credit: Ali Saleisa.

invasive species, conservation policy, and the role of the local government, he explained.

> When livestock disappear, they are not easy to recover; the entire area is covered by the thorny *mathenge* (*Prosopis juliflora*) and other shrubs. We took the flock to a place called Goo'aa near the *galaan* (river) to feed on a *d'igajii* shrub, which is not as thorny. The goats dispersed and a lion attacked and killed 84 goats. We kept searching with the help of other herders but only found the carcasses; the lion killed them all without eating any flesh! It was very disheartening. I reported this to the chief, received a letter, and followed it up with the county government. It has been five years since then, and I have never been compensated.

Discussions such as this, prompted by the sharing of some images, raise many questions about how uncertainties are understood, experienced, and confronted socially and practically (see Chapter 6). Further discussions with elders highlighted local conceptions of uncertainty: 'No human knows everything, even if you are an expert in one area', explained one elder in the Waso Borana community. As Abdullahi Dima observed, '*Hooraa buulaan* (whoever desires a prosperous life) will survive all the *c'inna* (calamities) that we face in society.' Individuals who desire a successful life are always in fear of the unknown ('*Hooraa buulaan waa soodaataa*') and must know how to handle those fears without harming others, he explained.

Kachchh, Gujarat, India

When asked if they could predict certain events, like the pandemic or the first rainfall, or whether they knew to expect such events, Rabari pastoralists in eastern Gujarat shrug their shoulders and say '*Kone khabar*' ('Who knows?' 'We don't know', and 'Only God knows'). Rather than speculate on events that are beyond their control, the Rabari often say '*Thaay tyaare hachu*' or 'It will be true when it happens'/'It will be known when it happens'.

As discussed in Chapter 3, Rabari pastoralists have long responded to unfolding circumstances through movement. Their mobile camps are packed on camels, tractors, and tempos (small trucks or vans), moving daily and seasonally to exploit emerging opportunities. Figure 2.8 shows one photo that reflected discussions on pastoral mobility. As a young male Rabari pastoralist explained:

> We decide two to three days in advance of moving. We think of where there is good grazing, where it is worth staying. We may stay in one place one night or even 15–20 days. We contact pastoralists ahead and farmers ahead – they tell us, come to our farms in a week or come in 10 days. Our *mukhi* or leader goes to find grazing. This scouting is called

Figure 2.8 A Rabari camp on the move.
Credit: Natasha Maru.

> *niharu karvu.* If we take a stroll through the outskirts of a village, then we know that there are crops that will be harvested in so many days and will be available for the livestock to graze. It is not decided where we go, but we have built relationships in certain villages over the years where we are comfortable, so we try to go there year after year, providing grazing is available.

Douiret, southern Tunisia

When asked what comes to mind with the word 'uncertain' (*al majhoul* or *aashakk*), one pastoralist in the mountainous village of Douiret in southern Tunisia responded as follows:

> When there is no rain it's hard. It's quite difficult. Thankfully, I manage the livestock on my own. If I ask a herder to be responsible for the herd, along with the increase in forage and barley prices … I wouldn't make it … I do not have the resources to resist. I contribute with my own money, my family is helping me a bit, we rise and fall, and we thank God. This is uncertainty. One day the livestock eat, the next day they don't. And hopefully, since we have in our pocket some money, we will provide the flock with what's necessary for their needs. Living is hard, especially when there is no rain, it's hard. Along with the high cost of living, in our time it got harder.

Figure 2.9 An extended family gathers during a sheep-shearing in Douiret, Tunisia. *Credit*: Linda Pappagallo and Hamdi Dallali.

In Douiret, many pastoralist families navigate such uncertain circumstances by maintaining transnational networks. Douiris travel to Tunis or abroad, all while financially contributing to the keeping of herds back home (see Chapter 8). An estimated 80 percent of Douiris do not live permanently in the village but instead return seasonally, often during the *jezz*, or sheep-shearing, season. This marks the beginning and the end of the pastoral year in the southern regions of Tunisia. Extended family members gather to help shear the community's stock, as shown in Figure 2.9. These are moments of discussion, and one returning pastoralist reflected on the theme of migration and uncertainty:

> This coming and going creates a sort of continuity for me, for my mother and my younger sister. This continuity manifests itself every time someone comes, when we receive letters, when someone says that it has rained in Douiret. So, this relationship with the village is virtual, not real, and manifests itself with people that come, with couriers, with good and bad news. We continue to live the village in an imaginary fashion, in a virtual fashion, we continue to keep the images of our childhood vivid. The caves, school, the olives, the dromedaries.

As discussed earlier, the 'imaginary' or 'virtual' presence is maintained through active online communities. Dozens of Facebook groups and pages are dedicated to Douiret, with members posting photos and videos of sheep-shearing and olive-picking, images used to establish presence in spite of physical absence.

Sardinia, Italy

According to pastoralists from Sardinia, precarity and uncertainty are the only constants. As they explained, when we make plans, we rarely say 'Yes'; instead, we say, 'Barring unforeseen events, I will be there!' A pastoralist from the south of the island explained how uncertainties about price, demand, supply, and market conditions are endless: 'Uncertainty is there every day … uncertainty around whether to continue or not because it is becoming less and less profitable and difficult to predict from an economic point of view.' Although 'uncertainty' in Italian is translated as *incertezza*, other terms are also used in the Sardinian context, including *precarieta* (precarity), *insicurezza* (insecurity), and *imprevisto* (unexpected event), reflecting the livelihood contexts of uncertainties in a pastoral setting.

Although pastoralism is central to the livelihoods of most Sardinians, the form it takes varies dramatically. Some make and sell cheese on their own, others increase bargaining power by selling milk through a cooperative. The constant fluctuation in markets requires close attention and adaptation. Reflecting on the photo in Figure 2.10, Felice explained how milk prices fluctuate a lot and the best solution for him is to make cheese and sell it, gaining greater income and keeping the farm going (see Chapter 5).

Figure 2.10 Felice's cheese production, Sardinia.
Credit: Giulia Simula.

The afterlives and circulation of visual material

Beyond a tool to surface knowledge and open discussions in pastoralist communities, the visual methods used across the sites also produced a collection of images that clearly communicated salient findings, visualizing uncertainty and making what is otherwise a quite abstract concept real. In order to share the insights from the six sites more widely, the photographs and their linked narratives were curated and shared through a variety of platforms, including travelling in-person exhibitions, an online exhibition, and photo newspapers.

Initially, researchers had intended to hold exhibitions in each of the field sites, but pandemic-related restrictions around travel and gathering disrupted some of these plans. In response, hand-held exhibitions were designed in the form of photo newspapers. Each tabloid-size paper contained a series of photographs that distilled central research themes in an accessible format. Although the content was primarily visual, accompanying text was translated and printed for local audiences. The research culminated in six site-specific newspapers and one longer thematic newspaper exploring manifestations and responses to uncertainty across sites. The newspapers were widely shared and received much interest from the pastoral communities.

Researchers employed the newspapers in a variety of ways. In Ethiopia, Borana language newspapers were brought to homesteads that participated in the research. In Amdo Tibet, newspapers were distributed at a horse festival in Kokonor (Figure 2.11) and used in classrooms. Newspapers were hung on clotheslines for an impromptu exhibition in Isiolo, Kenya, during a feedback

Figure 2.11 Tibetan language newspapers distributed at a horse festival.
Credit: Palden Tsering.

Figure 2.12 Swahili language newspapers on display at a community feedback session in Isiolo.
Credit: Ian Scoones.

meeting bringing together pastoralists and public officials (Figure 2.12). This process of sharing and receiving feedback through exhibitions and small group meetings demonstrated the importance of pastoralist knowledge in the research.

The inaugural cross-country exhibition titled Seeing Pastoralism took place outside Alghero in Sardinia, Italy in September 2021. Newspapers and prints were hung on yarn spun from Sardinian wool in the gardens of an *agriturismo* hotel (Figure 2.13). The event attracted hundreds of visitors, including many pastoralists from nearby communities as well as international guests. After the exhibition, one Sardinian pastoralist reflected:

> It has been very interesting to take this virtual walk through the different sites. The reflection I can make is that, notwithstanding the different environments, climates, and cultures, there is a single thread that links pastoralists across the world. And that is adaptation. I believe that this disposition of adaptation that pastoralists have is in fact a reflection of the adaptation that animals themselves have. In reality, animals adapt and we adapt along with them … these realities represent issues that do not only concern pastoralists because we are talking of climate change and global economy; these are aspects that concern everyone.

Figure 2.13 Sardinian pastoralists looking at photos of Tunisian pastoralists.
Credit: Roopa Gogineni.

Following the successful launch in Sardinia, the Seeing Pastoralism exhibition travelled to the international climate meeting, COP26, in Glasgow, the Global Land Forum in Jordan, the Stockholm+50 conference, the online European Development Days Forum, and events in Addis Ababa, Bhuj, Brighton, Brussels, Isiolo, Florence, and southern Tunisia. A digital exhibition was designed and published, incorporating audio and video content in addition to the photographs and text narratives.

The site-specific and cross-country exhibitions, both in-person and online, have generated a reflective and socially critical dialogue between community members, researchers, and policymakers about pastoralism, uncertainty, and development in ways that could not have been imagined had more conventional research formats been used.

Conclusion

This multi-country experience has demonstrated how a hybrid visual approach may be used to surface and share knowledge about complex and intersecting uncertainties. Much like the pastoralists at the centre of this work, the researchers themselves faced uncertainty, which sparked experiments and innovations in the use of visual tools.

To understand uncertainty from the eyes of the pastoralists has always been a challenge to the traditional researcher aiming to build research credibility, give back the results of the research to the communities at the margins, and

build knowledge together. Participatory visual research methods were able to unearth hidden tensions in uncertain pastoral landscapes. These methodologies, which were accessible to diverse groups – including women and youth as well as older men – provided insights into their own world-view, going beyond 'literary' or 'reflexive' approaches. By shifting authority and power in the process of knowledge-making, the approach took inspiration from feminist, post-colonial, and critical epistemologies (Denzin and Lincoln, 2003). The differentiated knowledges and perceptions reflected in people's explorations of uncertainty reinforced the argument that there are multiple realities, which are socially constructed, and these must be engaged with in processes of development (Yilmaz, 2013).

While the legacy of lens-based tools in academic research is fraught, the potential of thoughtfully designed non-didactic visual methods is vast. Such tools may challenge the narratives of the dominant frames of development planners, policymakers, and implementers with the more tacit, hidden knowledge drawn from the daily rhythms of the lives and livelihoods of the pastoralists. In so doing, such approaches can help open up debates about pastoralism, uncertainty, and development in ways that are not constrained by conventional understandings.

Notes

1. This chapter was developed collaboratively with PASTRES researchers Natasha Maru, Tahira Mohamed, Linda Pappagallo, Giulia Simula, Masresha Taye, and Palden Tsering who are authors of the six subsequent chapters and worked across the six sites discussed.
2. Now curated into an online resource and exhibition, Seeing Pastoralism (seeingpastoralism.org).
3. This effort built on previous photovoice work with pastoralists; for example, in Kenya, Uganda, Sudan, and Ethiopia (https://fic.tufts.edu/wp-content/uploads/Pastoral-Visions.pdf) and Mongolia (https://documents1.worldbank.org/curated/en/986161468053662281/pdf/718440WP0P12770201208-01-120revised.pdf).
4. Photographer Nipun Prabhakar (nipunprabhakar.com) documented the migration of Rabari pastoralists to mainland Gujarat and facilitated photography workshops.

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