

Oral Histories of Climate Change

Insights From a Pilot Study

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Acknowledgement of contributions

The development of this report was led by Priyanjana Pramanik under the guidance and supervision of Graham Smith, Venkat Srinivasan, and Indira Chowdhury who also edited the drafts at various stages. The report was designed and formatted by Megha Ramachandra. Individual interviewers provided valuable feedback on the content and interpretation of the findings.

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The collaborating institutions were the Oral History Collective at Newcastle University, the Archives at the National Centre for Biological Sciences (Archives at NCBS), and the Centre for Public History housed at Srishti Manipal Institute of Art, Design and Technology, Bengaluru.

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The interviewers acknowledge their positionality as researchers who were, in many cases, outsiders to the communities they were embedded in and the landscapes in which they worked, and hope that they have done justice to the stories entrusted to them.

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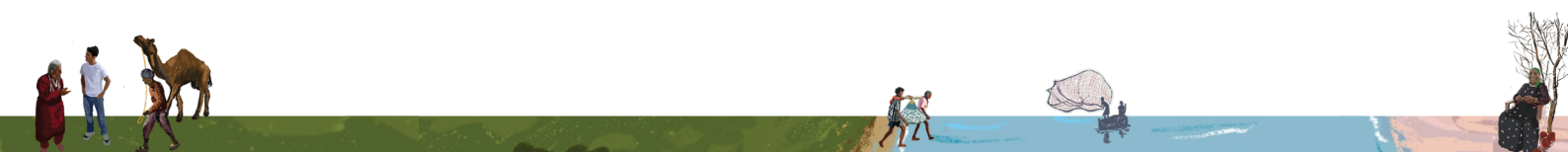
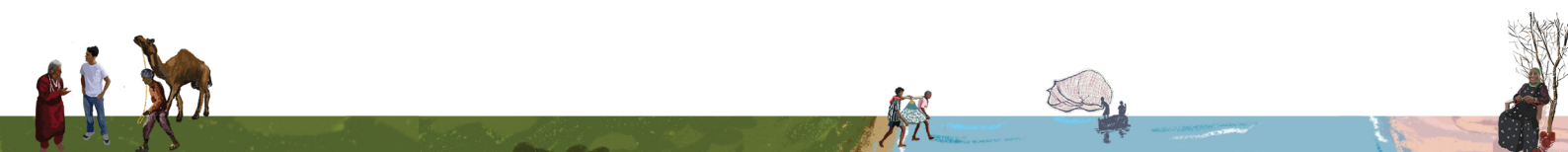


Table of contents

| | |
|-----------------------------------------------------------------------------|----|
| How to read this report | 4 |
| Executive Summary | 5 |
| 1. Beginnings | 12 |
| 2. Timeline and conceptualisation | 14 |
| 3. Training | 16 |
| 3.1. Day 1 - Oral history and knowledge creation: a historical review | 16 |
| 3.2.1 Day 2 - Oral history and oral traditions | 16 |
| 3.2.2 Day 2 - Themes in oral history interviews | 17 |
| 3.3. Day 3 - Ways of asking, ways of listening | 18 |
| 3.4.1. Day 4 - After the interview - transcription | 20 |
| 3.4.2. Day 4 - After the interview - translation and oral history | 21 |
| 3.5. Day 5 - The use of maps and photography for documenting oral histories | 22 |
| 3.6. Day 6 - Ethics, consent, and handover to the Archive | 23 |
| 3.7. Learnings from the training | 24 |
| 4. Landscapes, the interviewed, and the interviewers | 25 |
| 5. Discussion with participants: major themes emerging | 35 |
| 5.1 Water | 35 |
| 5.2 Foodways | 38 |
| 5.3 Land use change | 39 |
| 5.4 Human-nature Interactions | 41 |
| 6. Reflections, challenges, obstacles, opportunities | 44 |
| 7. Afterlife of an interview - handover to the archive | 48 |
| 8. Looking forward | 49 |
| 9. References (APA 7th edition) | 51 |
| 10. Appendices | 53 |



How to read this report

An overview of the contents of the report is presented in the *Executive Summary*. In *Beginnings*, we present the motivation and initiation of this novel pilot study on how elders from different communities and landscapes across India perceive environmental change.

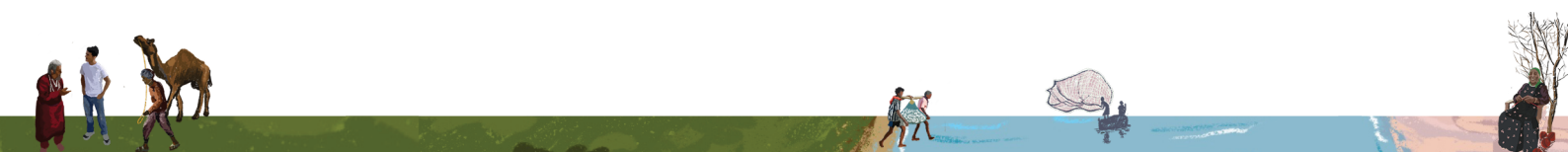
We then give an overview of the *Timeline* and *Training* for interviewers before they conducted their fieldwork, including discussions on consent and other ethical considerations, procedural concerns, and collection of strengthening documentation such as maps and photographs from the field.

We then introduce the *Landscapes, interviewers, and interviewees*, and bring in the interviewers' perspectives in a *Discussion* section. These discussions and collective input lead to a summary of insights from the interviews, synthesis of emergent *Themes*, and *Reflections* from the interviewers on the experiences of this project.

Afterlife traces the ongoing journey of the interview as it enters the Archive and becomes available to interested listeners as well as an analysis of the interviews to ensure that sensitive issues are appropriately handled.

In *Looking Forward*, we draw on our experiences to make plans for the future, including our hopes to bring the archived material back to the communities, facilitate community members who wish to access the Archive, and gather insights from other regions, landscapes, and communities who were not represented in this pilot. In the meantime, we hope that the report will be of use to those who might wish to apply our approach to their own research.

For uniformity, throughout this report, we refer to interviewers, interviewees, and other individuals associated with the project by their first and last name (unless the individual in question specifically requested otherwise) when their name first appears in the text, and by first name only thereafter.



Timeline

2021

- Q4: Initial funding proposal submitted to Newcastle University's Global Partnership Fund¹

2022

- Q1: Final submission of proposal titled "Three-way partnership between oral historians in India and England through designing pilot to gain a better understanding of intergenerational impact on climate consciousness and activism"
- Q2: Initial conversations with partner organisations and field partners
- Q4: Ethics and the Department of Atomic Energy (DAE) clearances received by the Archives at NCBS for continuing the project and receiving funds from Newcastle University.

2023

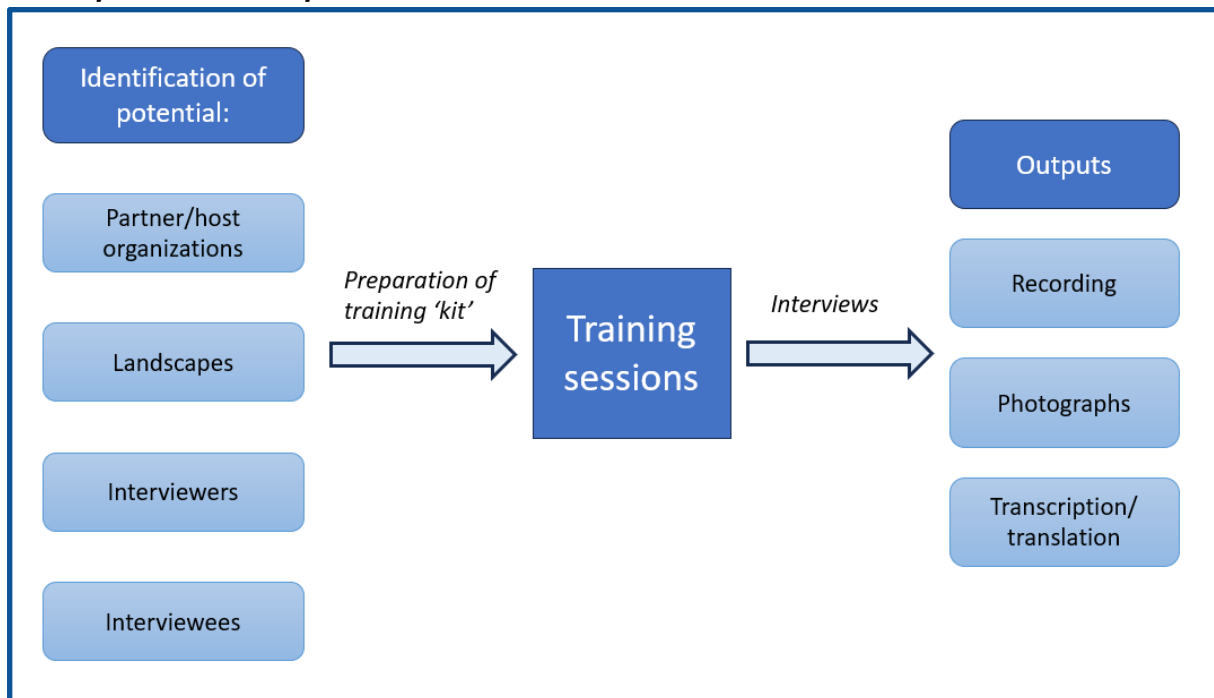
- Q1: Initial funding received
- Q2: Training takes place
- Q2-Q3: Interviews conducted*
- Q3: Analysis takes place at in-person workshop in Bangalore

2025

- Q3: Project report launched

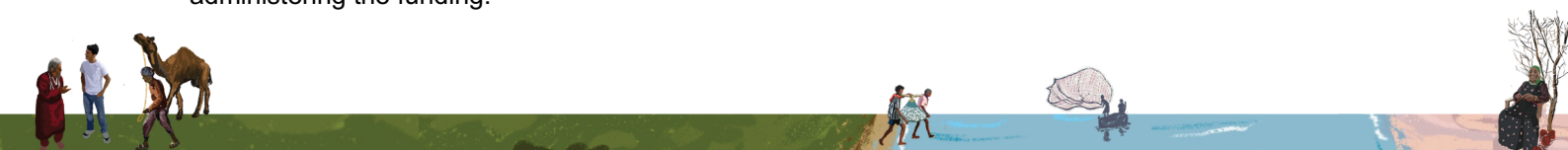
*Some interviews continued into 2024

Conceptualisation of process



Process chart. While this presents the overall workflow, there were iterative aspects, as some potential interviewers were unable to continue with the project, some interviewees were no longer available so other community elders were interviewed, etc.

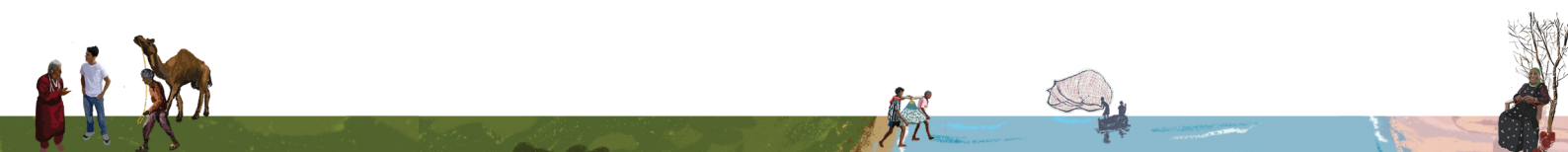
¹ We would like to thank colleagues in Newcastle University's International Office and in HCA's research team as well as colleagues at the Archives at NCBS for their patience and support in administering the funding.



| Date | Interviewee | Age | Interviewer | Geography | Language | Relationship/Context |
|--------------------------|--------------------------------|------------|---------------------|----------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27-05-2023 | Madhavi Devi | 70-74 | Siddhi Bhandari | Ranikhet, Uttarakhand | Kumaoni | Madhavi Devi was visiting her sick sister (intended to be the original interviewee) in village Chilkiya, Nainital district and wanted to share her story. |
| 24-06-2023 | Ghurali Das | 85 | Gaurab Talukdar | Brahmaputra floodplains, Assam | Assamese | Gaurab has known Ghurali Das since his childhood |
| 15-07-2023 | Bijoli Ghorai | 60+ | Priyanjana Pramanik | Sundarbans, West Bengal | Bengali | Priyanjana stayed with Bijoli's family during her MSc fieldwork |
| 27-07-2023 | Sandhya Dhal | 63 | Sayani Saha | Malida, Paschim Medinipur, West Bengal | Bengali | Sayani met Sandhya through a friend |
| 14-08-2024 | Gurubardi Mardi | 75+ | Rahi Soren | Dalma, Jharkhand | Santali | Rahi met Gurubardi Mardi accidentally when her original interviewee was not available |
| 17-08-2023 | Chanam (ongbi) Bidhumukhi Devi | 96 | Joyshree Chanam | Imphal, Manipur | Manipuri | Bidhumukhi Devi is Joyshree's grandmother |
| 21-08-2024 | Nawang Tharchen | 74 | Rigzen Dorjay | Ladakh | Ladakhi | Rigzen Dorjay met Nawang Tharchen in 2013 while conducting an interview survey in Changthang. |
| 25-06-2023 31-07-2023 | Bachu Jamru Ayub Amin | 85+ 60+ | Krutika Haraniya | Gujarat | Kutchi | Krutika Haraniya met Bachu Jamru and Ayub |



| | | | | | | |
|------------|------------------------------|----|----------------|----------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | | | Amin, who are Fakirani Jatt camel herders associated with the camel breeders association in Kutch, while working at Sahjeevan. |
| 16-09-2023 | Funchock Namgail | 87 | Tanzin Thinley | Himachal Pradesh | Spitian | Tanzin Thinley is from the same village as Funchock Namgail and has known him since childhood. |
| 25-04-2024 | Fathimath Suhra | 64 | Rajeswari B.T. | Chetlat, Lakshadweep | Malayalam /Jeseri | Rajeswari and Fathimath were introduced by other community members while she was working in the area |
| 20-05-2024 | Mullakuva, Mullapura Kalpeni | 68 | Al Badush | Kalpeni, Lakshadweep | Malayalam /Jeseri | Al Badush was introduced to Mullakuva (well-known in his community for his traditional knowledge) by Mullakuva's son, Munavvar Ali, who is a fisherman and a friend. |



Discussion with participants: major themes emerging from researcher discussions

Key interview themes were identified by the researcher participants during an in-person workshop. These were as follows:

Water: Sources and uses of water over time, the influence of governments and NGOs, the purchase and harvesting of water, the impact of rainfall patterns, cultural beliefs, water management infrastructure, droughts, biodiversity, food security, and water pollution.

Foodways: Food scarcity and security, changes in cultivation and consumption, shifts in agriculture due to rainfall, novel crops, livestock rearing, cultural factors, wild meat consumption, public distribution systems, foraging, and the impact of fast food and grocery shops on traditional cooking practices.

Land-use change: Changes in grazing patterns and resource management, the impact of illegal salt plans on grazing lands and herd sizes, the introduction of windmills and solar panels, the decline in agriculture and livestock rearing due to rainfall, land fragmentation for tourism, and the effects of prawn cultivation on mangrove loss.

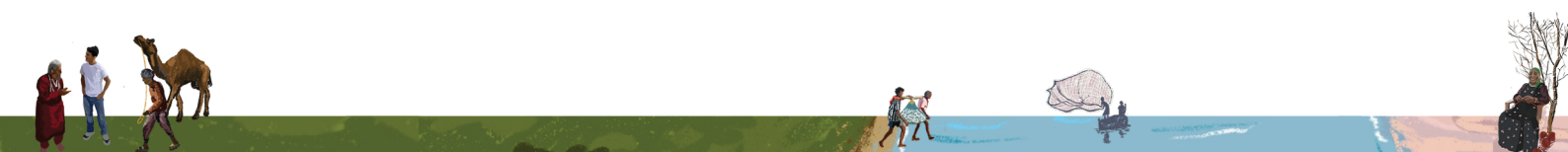
Human-nature interactions: Changing contact with wildlife, human-wildlife conflict, forest dependence, and foraged food.

Reflections, challenges, obstacles, opportunities

Language fosters a sense of community and facilitates communication, connecting with elders and the past. Oral histories, conducted in the language of the interviewee by a native or fluent speaker has many advantages and the potential to contribute meaningfully to climate change studies. However, many challenges emerge, starting with obtaining the necessary research permissions. Interviews bring up sensitive material which must be handled appropriately and with care, tact, and delicacy. Interviewers face unexpected challenges, interruptions, and disruptions as well as ethical issues related to consent (whether oral or written) or providing remuneration (or at least a token of appreciation) for the interviewee's time.

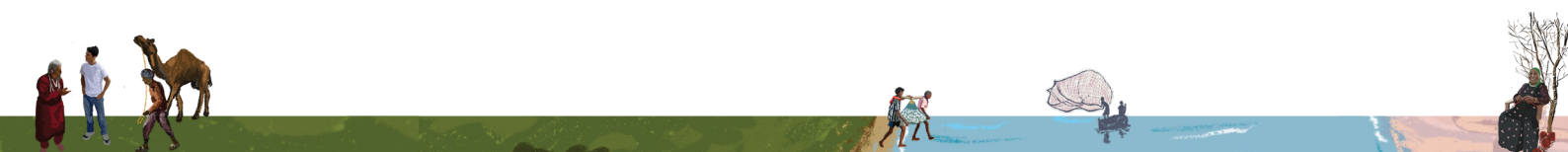
Afterlife of an interview - handover to the Archive

Once interviews are collected, they are submitted to the Archive with consent forms and catalogue entries, including transcripts. Prior to public access, interviews will be screened for sensitive content. Some sensitive portions may be muted. The Archive's access policy (please see: <https://archives.ncbs.res.in/access>) ensures compliance with donor conditions on the Oral History Consent Form, and legal restrictions. The Archive follows FAIR principles for data management, ensuring data is Findable, Accessible, Interoperable, and Reusable (see: <https://www.go-fair.org/fair-principles/>), and aims to adhere to CARE principles for Indigenous Data Governance (see: <https://www.gida-global.org/care>). A takedown page (see: <https://archives.ncbs.res.in/takedown>) allows removal of material breaching copyright or legal requirements. After the above steps are done, the Archives at NCBS will make the interviews publicly accessible on its website.



Looking forward

This project provided insights into global teaching, capacity building for NGOs, and fostering collaboration with communities, contributing to the global discourse on public and oral history. Oral histories offer valuable lessons for communities threatened by climate change, helping to design effective resilience and evacuation plans. The project highlighted how communities adapt to environmental changes, with migration and changing land-use patterns emerging as key survival strategies. The archive aims to support communities by strengthening their sense of place and belonging while building understanding of how they have historically dealt with external challenges. Findings will be shared through various media to engage both elder and younger generations. Future steps include disseminating the report, publishing findings, and collaborating with local governments on additional research.



1. Beginnings

The Oral Histories of Climate Change project asked:

- What insights into the diversity of experiences of climate change can be generated by gathering oral histories?
- What if the interviewers are not oral historians but embedded in the landscapes and linked to the communities from whom they are collecting interviews?
- Is it possible to create an 'interview kit' for NGO activists to collect interviews?
- What are the challenges and opportunities of teaching and learning about oral history methods through online interactions?

Climate change has been a well-established phenomenon since at least 1938 when Guy Callendar linked increases in atmospheric carbon dioxide with global warming, and conversations around human influences on the climate have only accelerated in the last two decades (Callendar, 1938).

International research and policy organisations warn that the warming of oceans, which trap excess heat, is a key indicator of the changing climate. Observations show that 2023 was the warmest year ever recorded globally since the first records were kept in 1850, and by a wide margin, with the ten warmest years ever recorded occurring between 2014 and 2023 (NOAA, 2024).

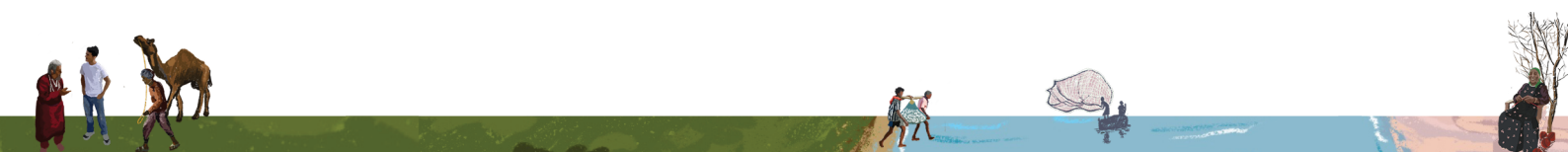
All over the world, this additional heat is driving extremes in seasonal and regional temperatures and is associated with declines in sea ice and snow cover (Kumar et al., 2020), intensified rainfall patterns (Giorgi et al., 2019), and changes in habitat ranges for many non-human species (Lenoir & Svenning, 2015).

For humans, who inhabit most regions of the world, the extreme heat and associated changes in air quality (caused by increased fires) is leading to increased complications from underlying respiratory and heart conditions as well as heat-driven illness and death (NOAA, 2020).

Mortality and property damage from natural disasters such as fires, drought, and floods are expected to increase while the range of disease vectors such as mosquitoes is expanding. Climate change also threatens food and water supplies (Lenton et al., 2023).

In the Indian subcontinent, climate change has been associated with decreases in monsoon rains, rises in extreme temperatures, increased frequencies of rainfall events and droughts, the incidence of more severe cyclonic storms, and sea level rise (Mishra et al., 2019).

India was ranked seventh on the list of countries most affected by climate change in 2019 (Eckstein et al., 2021) and experienced a rise of 0.7 C in average temperatures between 1901 and 2018 (Krishnan et al., 2020). In the same report, scientists at the Ministry of Earth Sciences warned that the intensity of heat waves could triple or even quadruple by the end of the 21st century.



The climate emergency, however, is a global phenomenon playing out across local scales. Depending on which landscape a person is situated in, the community or socio-economic group they belong to, their experience of the climate emergency will be very different.

Yet, more needs to be documented about our long-term understanding of climatic driven changes within communities across India that have long held a unique relationship to the world around them, both in terms of their basic needs and for cultural and spiritual reasons. For this reason, the Oral Histories of Climate Change (OHCC) project aimed to leverage oral history methods to gain insights into some of these experiences through interviewers who were already embedded in those landscapes.

It was a spiritual successor of Living Deltas (see: <https://livingdeltas.org/>), an interdisciplinary project including an oral history component, which focused on increasing the resilience of delta-living communities in the face of climate change and covered multiple Asian countries. Graham Smith, Professor of Oral History at Newcastle University, has been affiliated with both projects.

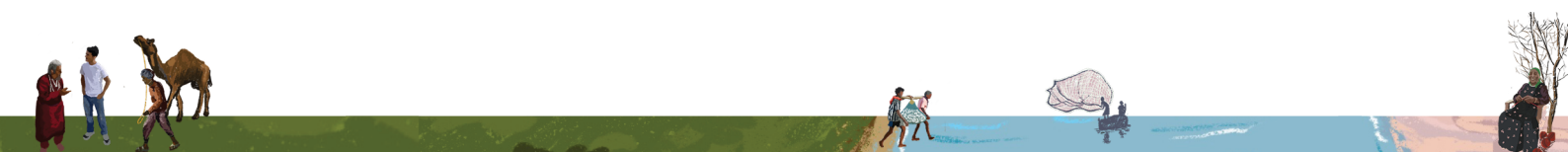
While the Sundarbans landscape was included in the Living Deltas project, other non-deltaic ecosystems and communities in the subcontinent were not. There seemed to be potential as well as a need to explore climate change experiences and collect testimonies not just from deltaic systems, but from diverse landscapes across India.

This led to the initiation of the OHCC project. Using lessons, challenges, and opportunities that emerged from Living Deltas, another objective of OHCC was to test ways of learning and teaching how to collect oral histories on a global scale.

Indira Chowdhury realised this possibility. She was then at the Centre for Public History (see: <https://srishtimanipalinstitute.in/centers-and-labs/center-for-public-history.html>) at the Srishti Manipal Institute of Art Design and Technology, Bengaluru, and has worked extensively with communities on oral histories, and was instrumental in pulling together diverse stakeholders, partners, and interviewers across multiple landscapes.

Venkat Srinivasan, head of the Archives at NCBS (<https://archives.ncbs.res.in/>), brought experience from their centre, which is a collecting space for the history of science in contemporary India.

The project was initiated with a collaboration between Graham Smith, Indira Chowdhury, and Venkat Srinivasan, which led to the institutional collaboration between Newcastle University and the National Centre for Biological Sciences, with the Centre for Public History as the anchoring knowledge partner.



2. Timeline and conceptualisation

“This is an example of the success of ‘slow research’ based on an understanding and respect of each other’s strengths.” - Graham Smith

During initial meetings held online in May 2022, stakeholders (these meetings included Siddhi Bhandari, Indira Chowdhury, Graham Smith and Venkat Srinivasan) discussed the need for a collaborative project on oral history and the value of the Newcastle University grant for a pilot project. Indira Chowdhury highlighted the importance of intergenerational histories on the perceptions of climate change among ordinary people.

It was through the course of these conversations that the idea of a small number of young people from within the communities interviewing community elders emerged. Over time, this changed to interviewers being embedded in and working in those landscapes, but not necessarily part of the community.

The training was to also lead to the generation of a workshop ‘package’ that could train more young people to conduct intergenerational interviews within their communities, leading to more sustainable and dialogic projects.

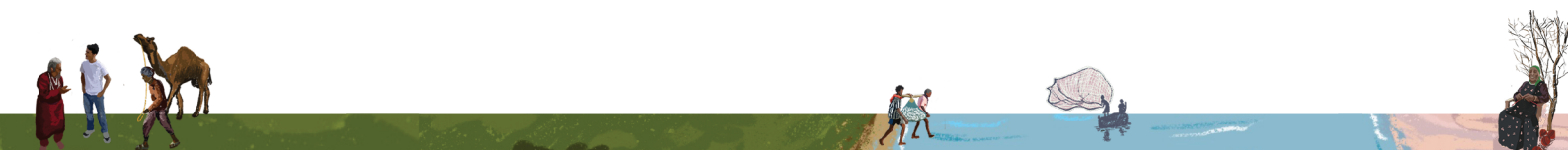
The OHCC project would also ‘field test’ this interview kit with the interviewers bringing back insights on what had worked and what could be strengthened. The focus for this project would be on individual interviews, with the possibility of further group interviews, due to the nature of community collectives, in the future.

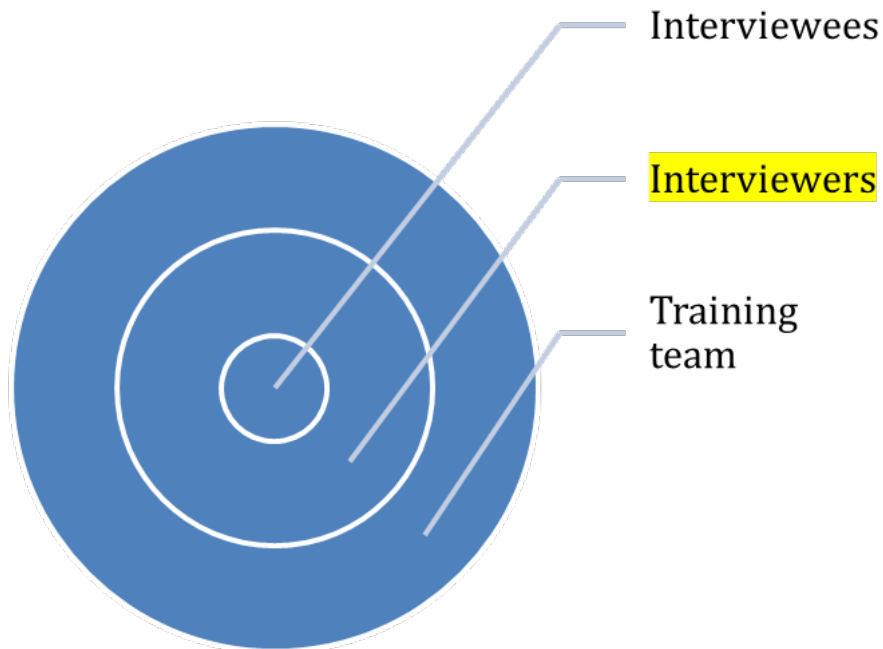
Each interview was envisioned to be about two hours long. The documentation of traditional knowledge, e.g. ways of identifying edible wild mushrooms, was also noted as a sub-objective of the project.

The pilot was to either focus on a single region and collect several interviews (as experiences of climate change differ even within a landscape and community) or gain insights into a diversity of landscapes with at most two interviews from each landscape.

While the project was initially envisioned to include 2-3 people, the group noted the diversity of landscape and community even among them and suggested the usefulness of mapping the comparison of climate change perceptions across different communities and geographies.

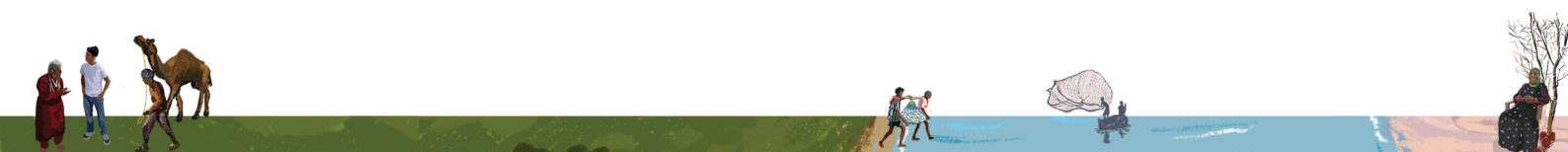
The attendees of these early meetings gave rise to a list of potential interviewers and people who could guide and mentor them based on their community connections. An important point of agreement was that organisations already embedded in the systems and working with communities could host the project in different areas, leading to the identification of Sahjeevan (Kutch), Nature Conservation Foundation (NCF, Trans-Himalayas, Lakshadweep) and the Canopy Collective (Assam), as possible partners.





Interviews would be recorded for audio (due to the advantages of storage) but not video, with the Archives and the Centre for Public History at Srishti loaning recording equipment to field collaborators if needed. However, accompanying photographs could provide a sense of place and document crucial visual information.

A final list of interviewers was compiled in April 2023. Training took place between April and May 2023, with the first interview taking place on May 27, 2023. The interviews were analysed during a collaborative workshop at NCBS in September 2023.



3. Training

Training sessions were conducted online over Zoom as the participants were located in different regions, including some who were already in the landscapes where they would undertake their interviews. At the request of participants, conversations were translated into Hindi or Bengali as needed.

3.1. Day 1 - Oral history and knowledge creation: a historical review

During the first session, Graham Smith presented a historical overview of the contribution of oral history to the making of knowledge across Europe, the Americas, Australia, and Asia. Oral histories emerged from this review as a way of understanding contested memory, history, as well as documenting folklore and oral traditions.

Oral histories have had applications in gaining insights into colonisation, deindustrialisation, and conflict. They have aided movements for restorative justice and memory. Individual life histories and community experiences have each played a role in these efforts.

These methods and the archival material they generate, not only have academic value but have found places in libraries and museums; they have also been popularised through television and other mass media to tell under-represented stories.

However, the increasing prominence of oral histories has been associated with a partial division of memory from history and ethnography. There has also been a shift from critiques of the unreliability of individual memory to the social historical patterning of memories, and away from empirical assumptions.

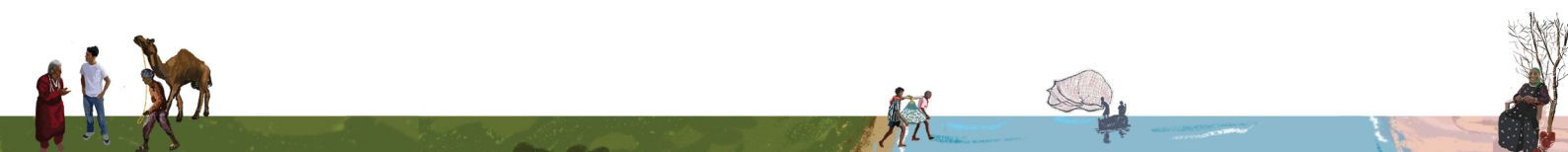
Concurrently, archiving standards have become increasingly more rigorous and collections more professional. There has also been more focus on the ethical principles that underlie oral history as a discipline, and its links with other fields such as geography, law, medicine, and the physical sciences.

3.2.1 Day 2 - Oral history and oral traditions

“What passes for Indian history does not tell us anything about the people of India.”
- Rabindranath Tagore

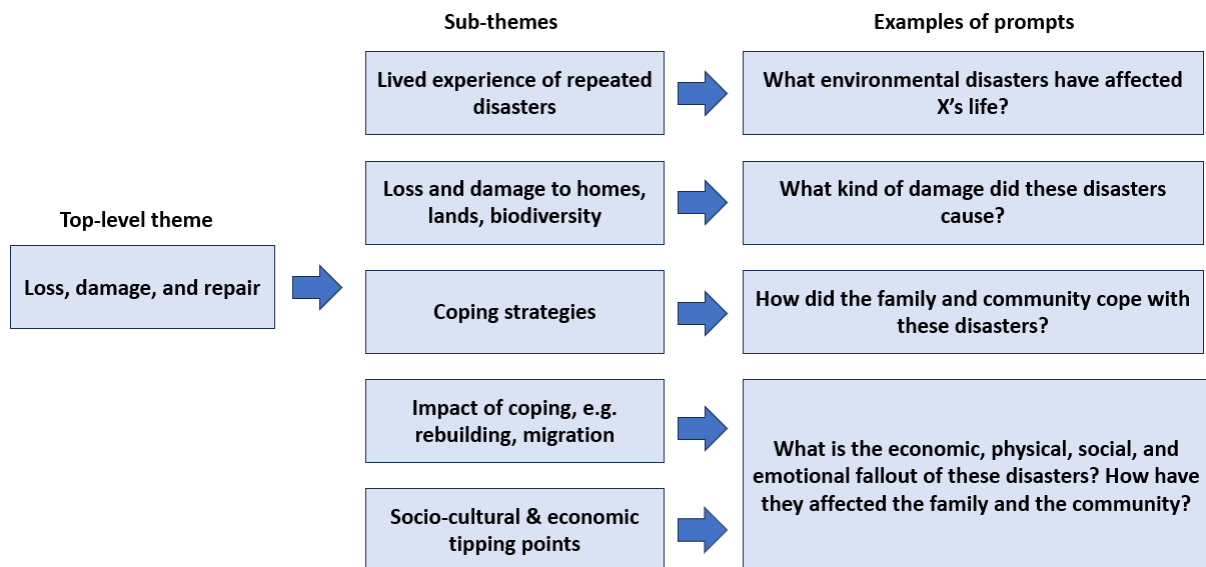
“Because in its physical constitution as sound, the spoken word proceeds from the human interior and manifests human beings to one another as conscious interiors, as persons, the spoken word forms human beings into close-knit groups.”
- Walter J. Ong, *Orality and Literacy*, 2002.

Indira Chowdhury's session focused on the role of oral history and traditions in indigenous communities, particularly in the context of colonisation. She highlighted the limitations of



environmental change, government and NGO interventions, collective support during crises, and emotional and sensory dimensions.

The participants were encouraged to identify sub-themes that would be relevant for their interviewee and the landscape they were situated in, and further use these to frame their prompts.



3.3. Day 3 - Ways of asking, ways of listening

Pre-interview research

During the pre-interview period, interviewers may conceptualise the interview and determine the scope. Background research includes preparing a brief biographical note, learning more about the area and documenting this information, and preparing themes for the interviews (organised into guide and topic clusters) as described in section 3.2.2. During this time, interviewers should select and locate potential interviewees, if they have not already done so, and explain the project and its objectives to them.

For interviewers from other disciplines - a shift in focus

Oral histories are not the best way to generate scientific evidence of the kind generated by scientists. Rather, they provide subjective evidence especially about the meaning of the past in the present, which is why comparative questions (now vs. then) may lead to valuable insights.

For interviewers trained in quantitative or natural science disciplines, conducting oral histories necessitates a shift from a data-centric approach to an interactive and participatory process. This method cultivates new skills and raises awareness that actions, objects, and events are intertwined with subjective emotional experiences that imbue them with significance.



It also reveals emotions that may challenge conventional norms or expectations. Importantly, interviewees are seen as authorities on their own lives, capable of articulating their experiences and perspectives in their own terms. This approach acknowledges the complexity and richness of personal narratives beyond straightforward factual data.

Ways of asking and questions to avoid

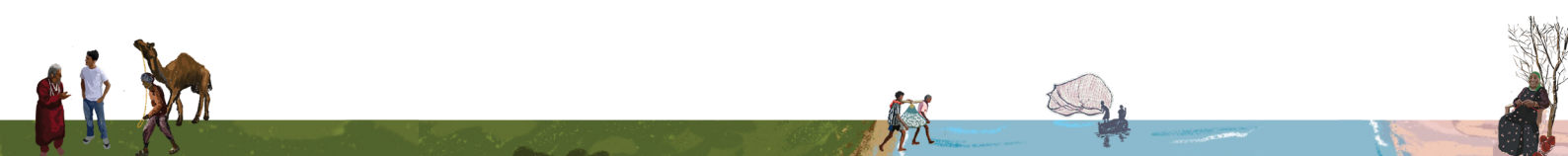
The training session encompassed diverse strategies for conducting interviews, emphasizing several key points: questions are most effective when focused on the subject's memories, thoughts, actions, understanding, and experiences.

It was stressed that inquiries about experiences, practices, emotions, beliefs, and life changes should be phrased in ways that resonate with the interviewee's perspective. Interviews were framed as collaborative processes, not static data collection exercises; interviewees should be given ample opportunity to contribute, with interviewers respecting pauses and silences as meaningful parts of the conversation.

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Beginning the interview This is _____ and I am interviewing _____ as a part of _____ Project from Archives at NCBS. We are sitting _____ and today is _____.</p> | <p>Open ended questions Can you tell me about ___? How did you feel about ___? Why did you choose ___? What was a typical day like? What can you recall about? What was it like? And then what happened?</p> | <p>Closed Questions How many ___? What year ___? Did you like ___? How much ___? When ___?</p> |
| <p>Keep it simple and understandable When you moved here what did you bring with you? Are there songs or rituals from your ancestral place that you still sing/perform? Tell me about these.</p> | <p>Follow-up Questions Silent questions That is interesting or I didn't know that, can you tell me more? Can you elaborate on that a little?</p> | <p>Summary Question at the end Is there anything else you would like to talk about? Is there anything I didn't ask you? Is there something important that I missed? Do call me if you remember something you want me to know.</p> |

The training program emphasized the importance of steering clear of certain interview approaches. Specifically, participants were advised to avoid asking science-related questions unless the interviewee is a scientist.

They were also encouraged to refrain from posing questions that are unnecessary or better answered by other sources, and cautioned against imposing the interviewer's perspective on the interviewee. It was stressed to avoid asking multiple questions simultaneously or framing questions in such a way that only Yes/No responses were possible.



Additionally, participants were instructed to actively listen, maintain a neutral facial expression, and handle emotionally charged information with sensitivity. They were reminded to ensure follow-up questions are relevant and to avoid leading questions, especially on politically charged topics.

Developing strategies for questioning

Interviewers were instructed to focus on structuring questions chronologically around interviewees' life events. For instance, they were prompted to ask about daily routines before certain milestones, such as starting work.

Anchoring questions based on biographical details were encouraged, like asking how old someone was during specific events to establish timelines. Interviewers were advised to establish baselines and inquire about changes or continuities over time, such as changes in land ownership after marriage.

They were encouraged to begin with broad questions about upbringing or places of significance before delving into specifics about changes over time. Reflective questions, probing emotions during thematic discussions, were suggested towards the end of sections.

Interviewers were also guided to ask "distancing questions" about community opinions or disapproval and to seek detailed descriptions of places, relationships, and changes in natural surroundings. Clarifications were emphasized to ensure precise understanding, especially when interviewees used narrative shortcuts.

Concluding an interview

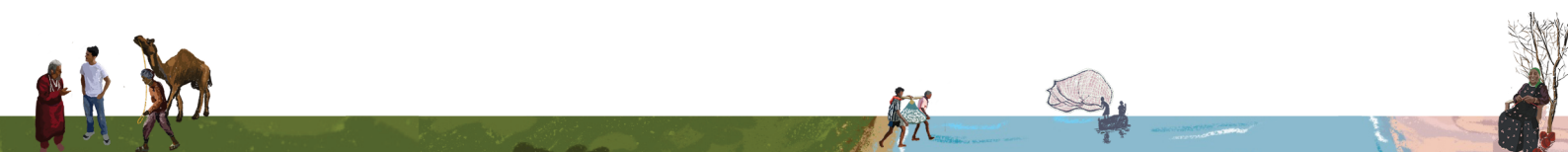
Interviews should not be stopped abruptly. Wrapping up the interview can include asking the narrator if they have anything to add, reminding them that the interview has been recorded and how the recording will be used, offering to share updates and outputs from the interview or project, and switching off the recorder to talk "off the record."

3.4.1. Day 4 - After the interview - transcription

"The collector of the spoken word—of oral memory and tradition—is in a privileged position. He is the creator, in some sort, of his own archives, and he ought to interpret his duties accordingly. His role, properly conceived, is that of archivist, as well as historian, retrieving and storing priceless information which would otherwise be lost." - Raphael Samuel, "Perils of the Transcript".

The transcript of an oral history interview is valuable for a number of reasons.

Transcription offers improved accessibility and user-friendliness. It benefits both researchers and interviewees by providing an accurate record of conversations. Transcripts facilitate the clarification of names, places, and dates.



They serve as a foundational resource for subsequent written analysis or for dissemination through books and articles. Additionally, transcripts can be repurposed as subtitles for audio and video clips.

Transcriptions may be generated either in-house, by the same team involved in collecting interviews, or outsourced. In both cases, an audit and the creation of a Style Guide is necessary.

While transcribing an interview, the transcriber should note that people do not often speak in complete sentences, and may make grammatical errors in speech. They may use 'crutch words' such as 'literally', 'actually', 'just', or 'like' (in English). The transcript should also make note of long pauses, laughter, and any action or gesture by the interviewee, and respect the conversational tone of the interview. Due to the scope for subjectivity, two transcribers may produce significantly different transcriptions of the same interview.

Narrators may include words or phrases from languages other than the language the interview is being conducted in. Depending on the audience and the objective of the project, the entire interview may require translation.

Tools for transcription include software such as VLC, Express Scribe, or Otter.ai, but these may be of limited use for non-English languages. Headphones are invaluable to catch softer sounds.

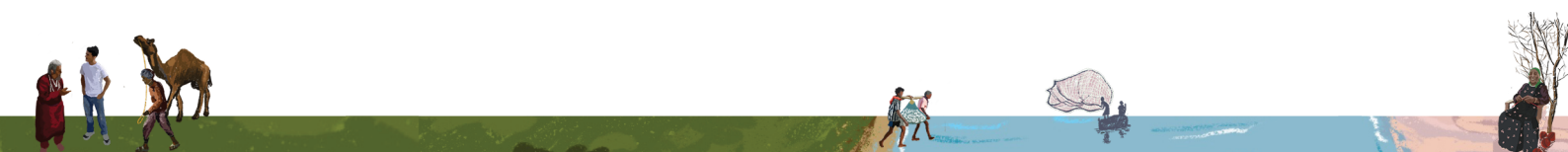
3.4.2. Day 4 - After the interview - translation and oral history

Based on the literature, two approaches to translation have been used for oral histories, namely simultaneous translation during the interview (de Langis, 2018), and post-interview translation by community members, students, or other researchers.

Two challenges of simultaneous translation are that it involves relying on the translator and that of timing. The translator *"informs the construction of participant narratives as well as the process of remembering and retelling"* (Jones-Gailani, 2013). However, the reliance on the translator can be an opportunity as well as a challenge, as the translator may belong to the same community as the narrator.

"Over the course of the interviews, I became increasingly quiet. Without constant translation, the interview evolved into an intergenerational dialogue between the project's young Khmer assistants and the narrator." (de Langis, 2018).

While post-interview translation may allow for more flexibility in terms of parsing what took place during the interview, the translators may lack familiarity with oral history techniques. There are also advantages and disadvantages to "insider interviewing" where the person conducting the interview belongs to the same community and speaks the same language as the narrator.



The translator's identity, then, is crucial, as translation involves more than just converting words between languages; it requires understanding and conveying the cultural and historical essence of the original text to create something meaningful in the new language (Benjamin, 2016).

Translation, then, is not simply about the words, but also about culture and otherness. An outsider may not understand the significance and cultural context of what they are translating, while an insider may hear more than what is being said. Emotional responses differ with language, and some languages are more contextual than others, with close links between the life of a society and the lexicon of the language spoken. Thus, translation choices are political and may involve power differences (Temple, 2013).

Meeting these challenges requires recognising that they exist but can be addressed through training, through reflection and reflective practices. No translation is perfect as different translations of the same material can exist. A translation can also evolve over time; it is not final.

Reflective practice is "*learning through and from experience towards gaining new insights of self and practice.*" (Finlay, 2008). It requires being conscious of the influence of one's beliefs, values, qualities, strengths, and limitations; being able to systematically evaluate an experience or event to develop a new perspective; being able to identify and adopt appropriate changes to one's practice; and regularly using the process to continually improve one's own and other's practice.

Living Deltas took a reflective, collaborative approach, recognizing that in multilingual teams, translations can be discussed within the team and with interviewees to ensure agreement; structured dialogues and versioning can take place to audit and check meaning. Sharing responsibility and authorship with translators and interviewees is appropriate in many cases.

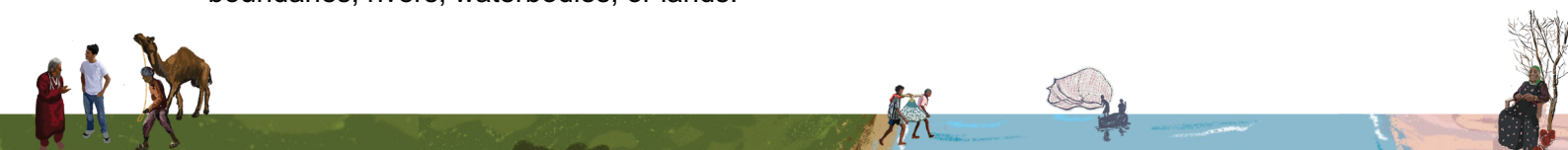
In the OHCC project, the interviewers themselves, being native or fluent speakers of the languages in which they conducted interviews, took on the responsibility of translating and transcribing their conversations.

3.5. Day 5 - The use of maps and photography for documenting oral histories

A session on mapping the field was led by Sayani Saha, a PhD scholar whose research focuses on mapping elephant corridors and with training in remote sensing, and geographic information systems, and Elza D'Cruz, who has used mapping extensively in her research and holds degrees in architecture, urban design, and history.

Participants discussed the value of spatially mapping oral history projects, linking interviews to the landscape in which they are conducted and sites that are significant for the interviewee and thus, the archive.

They are valuable to the interviewee as they strengthen memories. Itinerant or walking interviews allow the participants to move in space and time - the interviewer visits places with the interviewee, allowing both to reflect on what was and how things have changed - boundaries, rivers, waterbodies, or lands.



Route maps or mental maps of interviewees have been discussed in depth by Luisa Passerini (2018), in *Conversations with Visual Memory*, where the author conducted interviews with refugees, analysing location not factually, but through the lens of what is important to the interviewee.

Maps are also useful to the interviewer and accessors of the archive as they provide irreplaceable context. They can be digital and georeferenced, generated using GPS coordinates, and drawn to scale. Software such as QGIS (see: <https://www.qgis.org/>) can be useful tools in this regard.

Historical records such as revenue maps can be a significant source of secondary data, providing insights into historic place names and, taken with the memories of the interviewee, revealing sources of contention between the administration or army and the community. An example discussed during the training was the work of Nandini Bhattacharya, who explored land tenure in Kolkata using historical maps.

Maps can also be drawn by hand during the interview by any of the participants. Hand-drawn maps can bring to life places of the past that are being described by the interviewee but no longer exist, such as the previous course of a river. The Eagle Nest Memory Project (see: <https://eaglenestmemoryproject.in/>) is an example of a project that has used this approach.

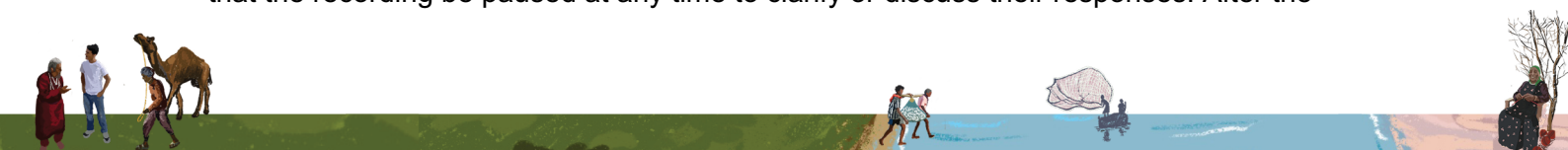
Additionally, a module on field photography was led by Gaurab Talukdar, a documentary filmmaker, and Siddhi Bhandari, whose doctoral research focused on the sociology of photography. This session covered both the technical aspects of photography such as lighting and composition but also the archival value of these photographs and issues related to the interviewee's comfort and consent.

3.6. Day 6 - Ethics, consent, and handover to the Archive

The Archives at NCBS uses a standardised consent form (see: Resources section at <https://archives.ncbs.res.in/about>) for oral history interviews to ensure contributions are included according to the interviewee's wishes. This form was vetted by the external ethics committee constituted by NCBS. This form is translated into the local language to ensure informed consent. It covers all forms of media—audio, photographic, and video recordings—as well as transcripts and descriptive summaries. The form serves as an agreement between the interviewee and the Archives, stating that the interviewee's life experiences are valuable for documenting the history of science in contemporary India.

Interviews may be unstructured, allowing interviewees to share specific memories and reflections. Sessions can last one to two hours, and multiple sessions may be conducted. Interviewees are informed that they can withdraw at any time before the consent form is finalised. If they withdraw during the interview, the recordings and any associated data will be either returned to them or destroyed.

Photographs may be taken with the interviewee's consent, and the interviewee can request that the recording be paused at any time to clarify or discuss their responses. After the



interview, the interviewee can impose restrictions on how the material is used. The recorded interview, along with the transcript and catalogue entry, will be preserved in the Archives and made available to researchers, academics, and the public, ensuring the information is accessible for future generations.

The form can be provided in any language upon request and confirms that the interviewee voluntarily consents to participate, granting the Archives ownership and copyright of the recordings and transcripts. However, the interviewee and interviewer retain authorship and a non-exclusive licence to use and publish the material.

The training session also covered specific workflows for including interviews in the archive, such as preparing catalogue entries and descriptive summaries. Participants were informed about the processes for claiming reimbursement for expenses and applying for honoraria.

3.7. Learnings from the training

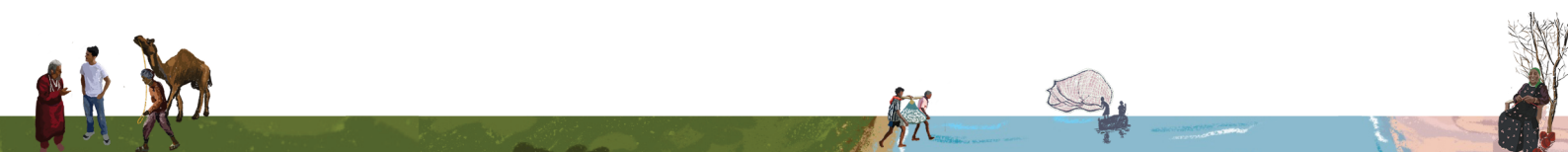
The training resources and literature were all written in English; English was also the primary medium of communication during sessions and discussions. However, these discussions integrated spontaneous translations of material and information into other languages, predominantly Hindi and Bengali, for the benefit of the participants.

An important learning from this experience is that there is a need to make sure the training kit for oral history interviews is accessible to interviewers of diverse linguistic backgrounds, allowing for greater diversity in the communities and interviewees who can participate.

From discussions of consent and consent forms, participants noted that there are issues of trust when speaking to non-literate individuals or those from rural backgrounds who may have reason to distrust documents. Historically, thumbprints have been taken from non-literate groups whereby they unknowingly signed away their lands. Consent had to be a process, beginning with oral consent in the recording and then, if possible, asking for thumb impressions or signatures.

An issue that came up during the trainings was that of 'over visited' landscapes where a large body of research has been conducted in the past. People in these areas may experience interview fatigue from having participated in multiple projects; interview fatigue can also take place if a single interview or session goes on for too long.

This is related to another discussion about the time that the interviewee contributes to provide the interview; due to these discussions, a small expenditure was incorporated into the budget for an appropriate 'gift' that would, in some way, compensate for the interviewees' time.



4. Landscapes, the interviewed, and the interviewers

Please also see the executive summary, which includes a map with locations of interviews with their ecological landscape.

4.1. Reflection on the diversity of interviewers and interviewees

The interviewees belonged to different political states and ecological landscapes of India, as did the interviewers. This diversity was crucial to generating valuable insights into how communities are experiencing environmental change. While climate change is indubitably happening on a global scale, it is at local scales that it is experienced. Exposure and risk are driven by one's physical location.

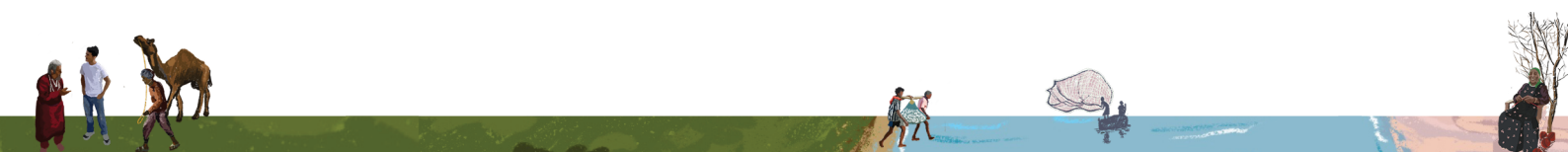
For the inhabitants of the Sundarbans, climate change may be felt through the increase in erosion and the severity of cyclonic storms. In the Brahmaputra floodplains of Assam, it is experienced through the unpredictable intensity of the floods. In the drylands, droughts become more common. In the hills, landslides and cloudbursts increase. Everywhere, it is felt through the changing of the rains, which have shifted from familiar to strange.

The interviewees in this project represented Spiti Valley, Ladakh, and Kumaon in the Trans-Himalayan Region. Though there were three interviewees from the state of West Bengal, one lives in the riverine islands of the Sundarbans, another belongs to a Santali community in Bankura (part of the Chhota Nagpur plateau), and the third lives in the drylands of Purulia.

From the northeast, one interviewee comes from the Brahmaputra floodplain; another lives in Manipur. Western India (specifically Kutch) and the Lakshadweep coral archipelago are each represented by two interviewees.

This exploratory pilot study is not meant to be representative of the vast country, or even of the landscapes which the interviewees inhabit. For instance, the Western Ghats, Central India or the Deccan plateau are not represented here. However, the diversity of responses shows how different experiences play out even in geographic proximity - between Spiti Valley and Ladakh, or between Assam and Manipur, or Purulia and the Sundarbans.

Most of the interviews were conducted between May and August 2023. Due to logistical issues and climactic challenges, the interviews in the Lakshadweep islands were delayed; one took place in April 2024 and another in June 2024. This report only includes the interviews that took place in 2023 and were analysed and discussed during the in-person workshop at NCBS, Bangalore in September 2023.





A photograph of Madhavi Devi. Credit: Siddhi Bhandari

Interviewee:
Madhavi Devi
70-74 years old

Interviewer: **Siddhi Bhandari**
Language: **Kumaoni**

Location: **Village Chilkiya,
Nainital, Uttarakhand**
Date: **27-05-2023**

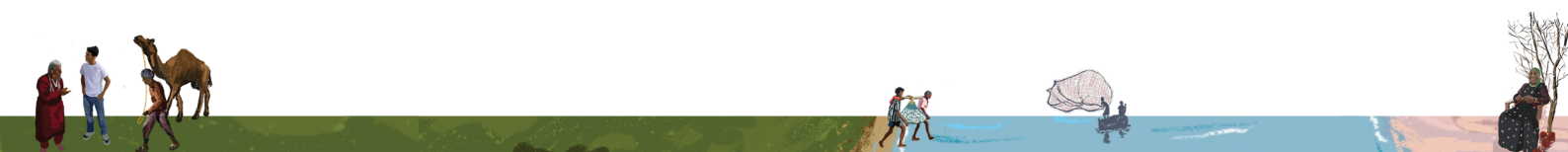
Siddhi Bhandari's narrator, Madhavi Devi, was born near Garampani, in Nainital district of Uttarakhand. She was the third of four sisters, and also the third wife to her husband whom she married when she was 16. She had three daughters and one son. She is now widowed and lives in the Ranikhet district where she works as a labourer on farms.

Siddhi is a faculty member at the Centre for Public History at the Srishti-Manipal Institute of Art, Design and Technology, Bengaluru, India. She was born in the Terai-Bhabar region in the Nainital district of Uttarakhand; her family has lived there for several generations.

This region has been historically fertile because of sediments from rivers and additionally is irrigated by a canal system. It was part of a fruit belt with numerous mango and litchi orchards.

However, Siddhi's own experience of the area has been different, with agricultural land and fruit orchards giving way to new building constructions like resorts, eateries, and houses. Her interview, in addition to the objectives of the project, was a way of learning more about the history of the region where she lives.

Madhavi Devi was visiting her sister's family in village Chilkiya, Nainital. She had come all the way from Ranikhet, which is higher up in the mountains. Siddhi was meant to interview Madhavi Devi's but she was unwell and bedridden and said that she was not feeling up for it. Jokingly, Madhavi said she will step in because she talks much more than her sister. However, this turned into a fruitful encounter.





A photograph of Ghurali Das. Photo credit: Gaurab Talukdar

Interviewee:
Ghurali Das
85 years old

Interviewer: **Gaurab Talukdar**
Language: **Assamese**

Location: **Dharamtul,
Morigaon, Assam**
Date: **24-06-2023**

Ghurali Das was born in 1938 in Dharamtul and has never lived anywhere else. His parents and his wife were also from his hometown. His parents were both buffalo shepherds; this was notable as it was uncommon for women to take on this role; his mother carried a *khukri* (machete) as she went about her daily work.

Gaurab Talukdar is a documentary filmmaker from Assam and is passionate about telling stories of nature and communities through visual media. He has known Ghurali Das since his childhood when he grew up listening to the stories that he told. Gaurab wanted to document his memories and wisdom while learning more about how his hometown had been before.



Bijoli Ghorai with her son. Photo credit: Priyanjana Pramanik

Interviewee:
Bijoli Ghorai
60+ years old

Interviewer: **Priyanjana Pramanik**
Language: **Bengali**

Location: **Patharpratima,
West Bengal**
Date: **15-07-2023**



Bijoli Ghorai spent her early days on the tiny island of Ghoramara about 92 km south of Kolkata. She was the second of six children.

The eldest children were all girls, and dreamed of having a little brother. They were well-to-do at first, with plenty of land by the river, until their lands were eroded and submerged and they had to move to a different island in the Sundarbans. She has spent her married and widowed life in Patharpratima.

Priyanjana Pramanik is a freelance researcher and science communicator, with interests in climate change, human-forest interactions, and conservation policy. She met and became close to Bijoli Ghorai while carrying out fieldwork for her master's ecology project in the Sundarbans. During this time, she stayed in her house and Bijoli's youngest son Biswajit was her field assistant. She was interested in how Bijoli's family has responded to environmental change through migration.

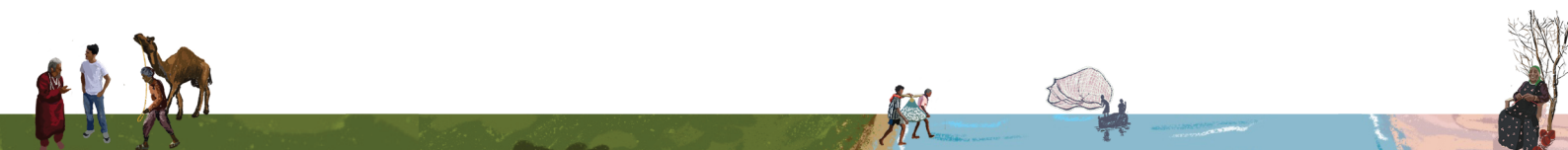


A photograph of Sandhya Dhal. Photo credit: Sayani Saha

Interviewee:
Sandhya Dhal
63 years old

Interviewer: **Sayani Saha**
Language: **Bengali**

Location: **Malida, Paschim
Medinipur, West Bengal**
Date: **27-07-2023**



Sandhya Dhal was born in Kapgari village, Jhargram district, West Bengal. Her father was a watchman and her mother a housewife. She completed her primary education in Kapgari eventually migrating to Gidhni when she married and then to Malida with her husband and five children in search of better economic prospects. In 1998, she began to work with the Integrated Child Development Scheme. Her son died while working for the Indo-Tibetan Border Police.

Sayani Saha is a doctoral student who has mapped elephant corridors in West Bengal, and has specialised in remote sensing and geospatial information systems. Her PhD research has focused on human-elephant conflict; she met Sandhya through a friend and was interested in speaking to her because she had heard about her interactions with an elephant that attacked her home.



Gurubari Mardi with Rahi Soren. Photo credit: Rahi Soren

Interviewee:
Gurubari Mardi
75+ years old

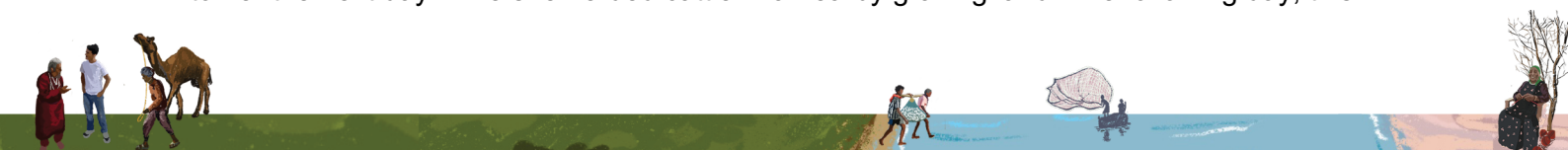
Interviewer: **Rahi Soren**
Language: **Santali**

Location: **Dalma,**
Jharkhand
Date: **14-08-2023**

Gurubari Mardi was born in Chakulia, a forest village, in the current state of Jharkhand, and has lived in the same village for at least 70 years. She is unmarried and works as a shepherd. Her parents were farmers. She has never received formal education.

Rahi Soren is currently a faculty member at Jadavpur University where she studies the role of scientific information for conserving culture, habitat and biodiversity in the face of the growing threat of extinction. She is a native speaker of the Santali language.

Rahi chose to work in Dalma as she was interested in exploring the relationship between elephants and humans in the forest lands of Jharkhand. On the first day she visited Chakulia, she had an informal discussion with village members, learning about their experiences of elephant interactions and letting them know that she was interested in conducting an interview subsequently. An elderly woman in the community agreed to speak to her the next day while she herded cattle in a nearby grazing land. The following day, this



person was not available, but Rahi met Gurubari Mardi who was grazing cattle there at that time, and who agreed to participate in the interview.



A photograph of Chanam (ongbi) Bidhumukhi Devi. Photo credit: Joyshree Chanam

Interviewee:
**Chanam (ongbi)
Bidhumukhi Devi
96 years old**

Interviewer: **Joyshree Chanam**
Language: **Manipuri**

Location: **Imphal, Manipur**
Date: **17-08-2023**

Joyshree Chanam interviewed her grandmother, Bidhumukhi Devi, at her home in Imphal, Manipur. Joyshree is an independent researcher born and raised in Imphal, Manipur, currently a Visiting Fellow at the Konrad Lorenz Institute of Evolution and Cognition Research. Her current research focuses on the effects of climate change on wild food plants and consequently on the culinary cultures of the respective communities that use them.

Joyshree's *abok* (grandmother) grew up in an era vastly different from the present day. She has lived her entire life in Imphal, which is located in a remote valley but has seen its share of global history during the Second World War and political upheavals against the colonial British government. It is now seeing rapid modernisation. Joyshree chose to interview her grandmother to document her role as an onlooker to climatic, social, and



cultural changes to her immediate environment, against the background of large-scale historical changes.



Rigzen Dorjay with Nawang Tharchen. Credit: Rigzen Dorjay

Interviewee:
Nawang Tharchen
74 years old

Interviewer: **Rigzen Dorjay**
Language: **Ladakhi**

Location: **Ladakh**
Date: **21-08-2023**

Nawang Thachen is a 74-year-old from Samad (Rupshoo), belonging to a herder's family. When he was 17, his father died in a car accident. As the eldest sibling, he had to take on all the household responsibilities. He became an expert shepherd during a time when the barter system was prevalent. Nawang travelled to Tibet to bring salt and sold it in Spiti and Zaskar. He is an all-rounder, skilled in mechanics, trading, construction, and nomadic handicrafts, with extensive knowledge of the Changthang landscape. Now, having handed over his livestock and property to his son and daughter, he dedicates his time to praying for all sentient beings.

Rigzen Dorjay is from Ladakh and has worked extensively with the nomadic *Changpa* people of Eastern Ladakh intending to foster positive human-nature relationships. He is associated with the Nature Conservation Foundation and is a Coexistence Consortium Fellow.



In 2013, while conducting an interview survey in Changthang, he had the opportunity to discuss with Nawang Tharchen. He was surprised by his extensive knowledge of the traditional, cultural, and values of Changthang, Ladakh. Recognizing the importance of this knowledge for our lives, he decided it was essential to share and pass it down to younger generations which led to this interview.



Bachu Jamru wearing his traditional Ajrakh shawl at Jangi, Kutch. Credit: Krutika Haraniya

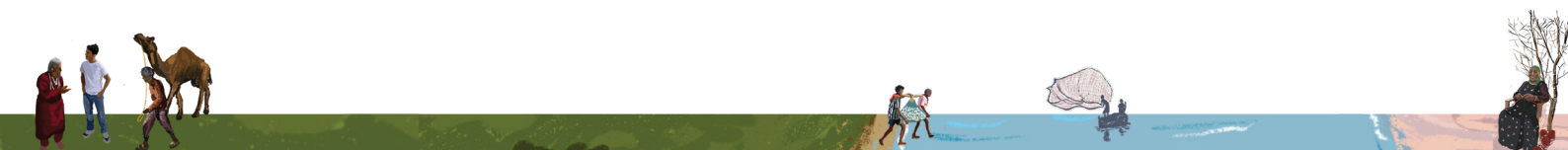
Interviewee:
Bachu Jamru
80+ years old

Interviewer: **Krutika Haraniya**
Language: **Kutchi**

Location: **Gujarat**
Date: **25-06-2023**

Krutika Haraniya has been associated Sahjeevan and has been working with the pastoral communities of Kutch and Saurashtra for about 5 years. She is an archaeologist by education and works as communication officer for Sahjeevan. She works with the pastoral communities documenting their lives, culture, heritage, religion and more.

The pastoralists of the Bachchau region (where he stays) along with Kutch Uth Ucherakh Maldhari Sangathan (KUUMS) and Sahjeevan filed a case with National Green Tribunal (NGT) against Kandla port authorities for leasing out the mangrove lands to the salt pan



industries. Hamir, one of the interviewees' sons was involved in the case. On one of the visits to Hamir's house back in 2019, Krutika met his father.

He was a generational camel herder and has been herding camels for more than 70 years. The mangrove landscape has changed drastically in the past 40 years. He speaks nostalgically about the land which could sustain thousands of camels and now there is not enough feed for fifty camels because of the salt pans. He speaks about two events that altered their lifestyle (1998 cyclone at Kandla Port and 2001 earthquake in Kutch).



Ayub Amin with one of his camels enroute his annual migration. Credit: Krutika Haraniya

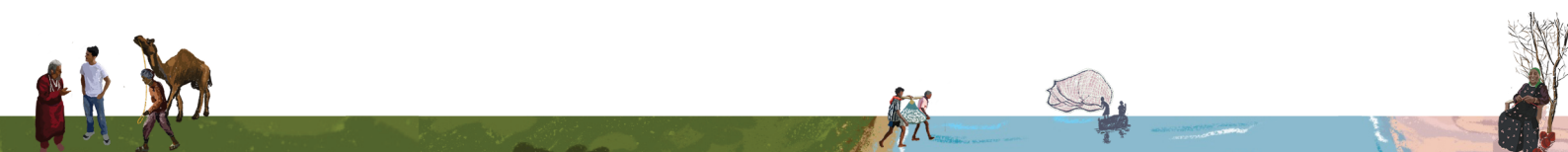
Interviewee:
Ayub Amin
65+ years old

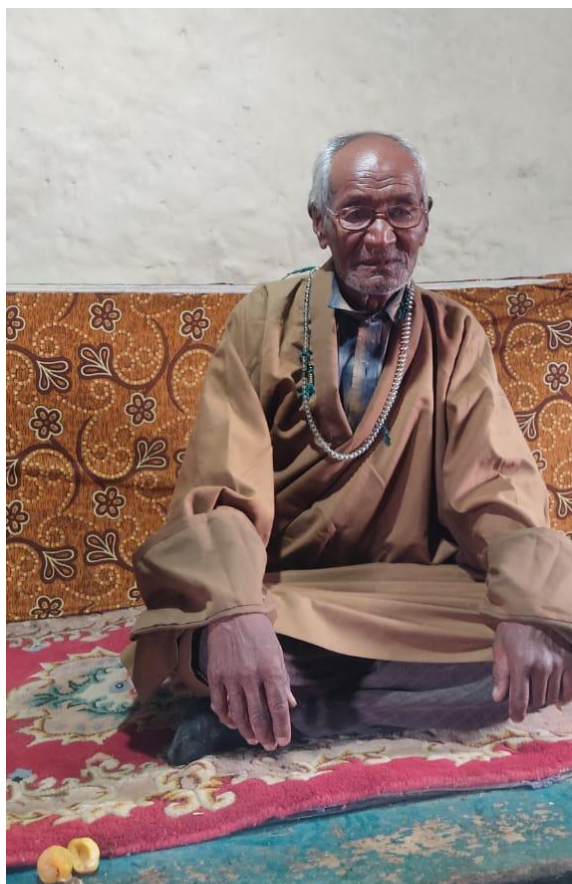
Interviewer: **Krutika Haraniya**
Language: **Kutchi**

Location: **Gujarat**
Date: **31-07-2023**

Ayub Amin is Bachu Jamru's nephew and lives in the neighbouring house. He is also a camel pastoralist and he has to migrate to different region as there is not enough feed for all the camels in the region. While Bachu Jamru talks about the time when the camel herding was a thriving occupation, Ayub Amin is worried about the future. He gives another perspective of today's grave concern of the mangroves and not enough land for the camels to browse and the hardships faced by the camel herders today.

Krutika Haraniya met Bachu Jamru and Ayub Amin through her work at Sahjeevan. They are both Fakirani Jatt camel herders and are associated with Sahjeevan and Kutch Uth Ucherakh Maldhari Sangathan (Camel breeders Association, Kutch)





A photograph of Funchock Namgail. Photo credit: Tanzin Thinley

Interviewee:
Funchock Namgail
87 years old

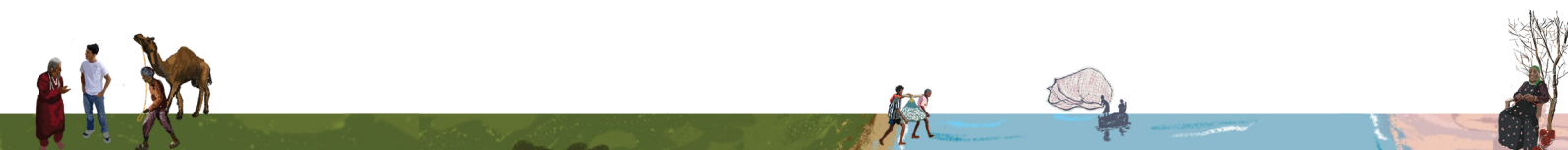
Interviewer: **Tanzin Thinley**
Language: **Spitian**

Location: **Spiti Valley,**
Himachal Pradesh
Date: **16-09-2023**

Funchock Namgail is a farmer, one of the first people in the region to cultivate green peas. He belongs to a rich household and has seven children. He was his parents' only son, with one elder sister. He completed education till 5th grade, in Kibber.

Tanzin Thinley has been associated with the Nature Conservation Foundation for the past 20 years, working with local communities for conservation and research in Spiti. In Spiti, interactions with wildlife, particularly livestock depredation, have affected livelihoods, and this is an issue that Thinley has worked on extensively.

Tanzin Thinley and Funchock Namgail are from the same village, and Tanzin has known him since childhood.



5. Discussion with participants: major themes emerging

As of September 2023, ten interviews had been conducted; by July 2024, all 10 planned interviews had taken place. The initial ten interviews were analysed during a hybrid (in-person and online) meeting at the National Centre for Biological Sciences between September 20-22, 2023. Graham Smith was present during the in-person discussions and led a public lecture on the Living Deltas project on Sep 21, 2023.

During the workshop, participants provided individual reflections on their experiences and took part in group discussions to parse emergent themes, commonalities, and divergences across their interviews and landscapes. Workshop participants also reflected on ways to take this pilot study forward and how communities could access the archives and interviews be brought back to the communities.

The key themes that emerged from individual presentations and group discussions during the workshop pertained to (1) water, (2) foodways, (3) human-animal interactions, and (4) land use change.

This section summarises the discussions taking place during the in-person meetings and includes relevant quotes provided by interviewees during the interviews; it is not a comprehensive summary of the interviews which will be made available to the public through the Archives at NCBS.

5.1 Water

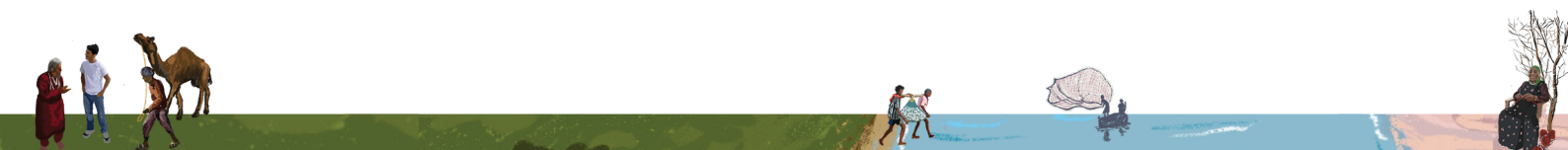
Water and access to this critical resource are a central aspect of the climate crisis. Rainfall patterns become more unpredictable, often leading to more frequent drought or flood conditions. Higher water temperatures can lead to lower quality of drinking water, while unsustainable extraction has reduced groundwater availability.

In the OHCC interviews, participants touched on some of these aspects.

“Since when I was 7- 8 years old we used to take bath in the (Kopili) river, all drank river water, there was no hand pump and water well as such. My mother and sisters used to carry two pitchers and carry water from the river.” - Ghurali Das, Assam

Rainfall patterns, respondents reflected, have changed over time. The Paschim Medinipur region depends heavily on the monsoon and expects rainfall in June or July, but severe delays are causing a lack of water for agriculture and consumption as groundwater stores run out.

Ghurali Das, Gaurab Talukdar’s interviewee, for instance, recalled that his community was historically dependent on rainwater for agriculture but can no longer predict when it will come and cannot wait for the rains. Farmers in the past knew exactly when to sow their seeds. Their crop calendars have become irrelevant.



Bidhumukhi Devi remembers the hailstorms that came in the summer months, during which she played with her siblings, collecting hailstones, in her childhood. However, hailstorms too have become rare.

In the Brahmaputra floodplains, Ghurali Das relied on groundwater through handpumps but the river was an ever-present source of water; wetlands (*beels*) were also used by livestock for grazing. He discussed the depletion of groundwater and the need to dig deeper, stating that if one could get water at 40 feet, one now had to dig till 80 feet.

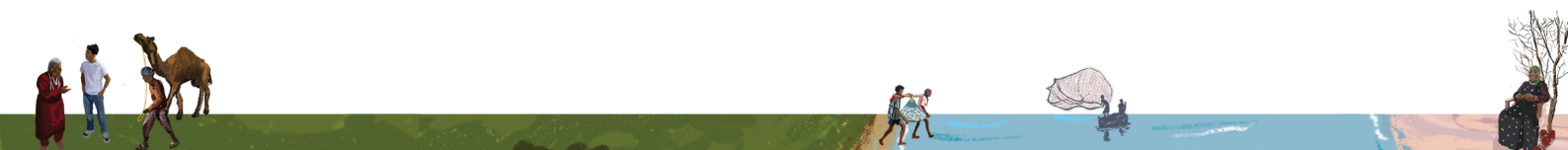


Bijoli Ghorai's household pond in Patharpratima. The slab in the lower left corner is used to enter the pond ('ghat') or to squat as one does dishes or laundry. Credit: Priyanjana Pramanik

In the Sundarbans, the river provided brackish water that could not be consumed while potable water was obtained from the ground through bore wells, and other household needs were met with freshwater from family ponds.

In Malida, Sayani learned from Sandhya that water from wells is used for household purposes, but also learned that her respondents' community has taps that bring groundwater to her home - earlier, they had to bring water from far away, often from wells. For agriculture, small ponds were used but were now drying up due to lack of rainfall and hot weather.

In Manipur, Bidhumukhi Devi noted that before, water from the freshwater ponds, some belonging to the household, some to the community, could be drunk without boiling; now, however, it was no longer as clean and had to be boiled. Earlier, tap water was also brought into the community by the government after cleaning river water. Mineral or bottled water has also become a primary source of drinking water, giving rise to pollution.



Water pollution

“The water of the beel was so clear that one can see fish underwater.” - Ghurali Das, Assam

Plastic pollution emerged as an important source of water pollution across Patharpratima and Manipur. Waste is often dumped in the river in the Sundarbans while in Manipur, smaller rivers are getting choked by plastic. Agricultural runoff is another challenge, as pesticides enter water bodies with impacts on fish and aquatic plants.

Rainwater harvesting

Rainwater harvesting, both active and passive, was another emergent sub-theme. In Assam and Manipur, harvesting is an active process - community members use buckets or big pots to collect rainwater, making use of sloping roofs where possible. In Manipur, this water is then used to wash clothes, as rainwater is ‘softer’ than pond water and creates more lather.

In other areas, such as in the Sundarbans and Paschim Medinipur, harvesting happens more passively. Rainwater recharges the household ponds or paddy fields, which can be used for irrigation or other purposes. Where there is low concretization, there is low percolation and groundwater recharge can also occur.

Folklore and beliefs

“O Rain may you pour down, and wash away old men and women, and submerge the peak of Langjing hill...” - Manipuri folk rhyme, as remembered by Bidimukhi Devi, Manipur

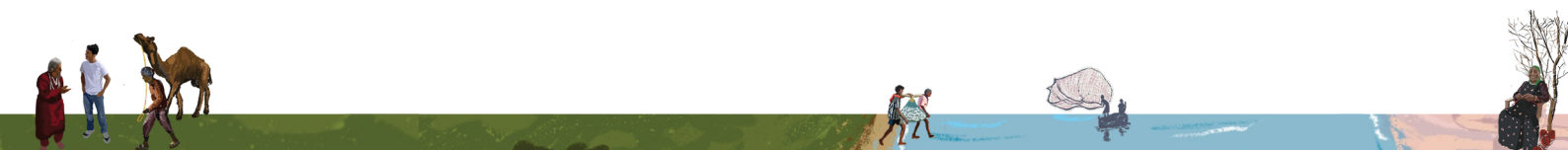
Sandhya Dhal spoke of rhymes about the coming of the rains and the relationship with the paddy harvest.

In the Sundarbans, Assam, and Manipur, the river was instrumental in ritual purification. In the Sundarbans, groups of women (and sometimes men) go to the river to collect water. They tend to take purification baths in the ponds, perhaps because of crocodiles. If you take water from the river, you pay with a coin. The river played a similar role in Assam.

Gaurab also learned about frog marriage which is done in some villages to bring the rains. During Diwali, the community makes banana rafts and floats them in the river with flowers and lights for the ancestors. In Manipur, the river is important for *tarpon* in September/October - fruits and other gifts are offered to the water to be given to ancestors.

“My grandfather was bitten by a snake... he didn’t tell anyone until it was too late... we gave him to the river... My father gave him to the river... He stood in so much water and did not move... He stood and cried until others dragged him away.” - Bijoli Ghorai, Patharpratima

In addition to communicating with the ancestors, the river played another role if there was a death. Snakebite victims in both the Sundarbans and Assam were given to the river rather than being cremated, as in the case of Bijoli Ghorai’s grandfather.



5.2 Foodways

Food security is another aspect of human well-being that is indelibly associated with climate change. Rising temperatures are linked to heat waves, unpredictable rainfall, and droughts, which directly affect agricultural productivity. Climate change also affects biodiversity and the health of fisheries. These issues were brought up in some interviews.

“There were times when we had only one piece of cloth to wear, half a meal a day to feed and now children waste food” - Gurubari Mardi

Insights into foodways emerged sometimes as a result of direct questioning and sometimes peripherally. In Malida, Sayani Saha asked directed questions of her interviewee, Sandhya Dhal, about what everyday meals had consisted of in the past, and how these had changed. On the other hand, Madhavi Devi (Kumaon) spoke spontaneously about foraging in the forest for berries but her interviewer, Siddhi Bhandari, also asked more targeted questions about changes and what is eaten now.

Biodiversity and fisheries

“There were so many birds... I don’t see them much now, most of them disappeared. They say it is because of chemical pesticides used in the rice fields.” - Bidhumukhi Devi, Manipur

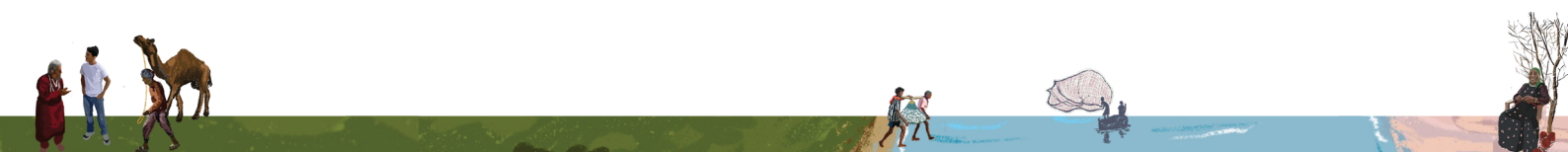
In Patharpratima, West Bengal, household ponds, in addition to providing water for bathing and cleaning, have fish that are caught to fulfil daily protein requirements.

Wetlands offer more than just fish. In the Sundarbans, foraged saags including *giriya saag* (*Suaeda nudiflora*) are eaten regularly. In Assam, *Ipoemia aquatica* is eaten, as are different parts of the water lily and lotus plants. In Manipur too, lotus and water lilies have dietary significance, though these are seasonal foods.

“We decided in the paddy field that we would go fishing tonight. We go to the west of our village. It had a unique riverbed with red clay and small stones. We used to get a lot of fish before. We used to catch Ari fish a lot.” - Ghurali Das, Assam

In Assam, Manipur, and Purulia, West Bengal, the disappearance of biodiversity is clear. Sandhya Dhal remembered the calls of the frogs when it rains, which she does not hear anymore. Ghurali Das spoke of the decreasing number of fish in the *beels* and the disappearance of the river dolphins.

Bidhumukhi Devi remembered the indigenous fish that would swim into the flooded paddy fields but have been wiped out by pesticide runoff; the community now has to buy fish from the market instead of relying on what is available. Non-indigenous fish like Rohu, Mrigal, Tilapia, and other carps came later, after the war.



Cultivation and food security

“People say the land is losing its quality and infertile, but actually we don't know how to do cultivation, we are not following the value in agriculture. We are not using local substances and using chemicals from outside.” - Ghurali Das, Assam

Bijoli Ghorali (Patharpratima) recalled a period of food insecurity after they lost their land to the river in Ghoramara. They had to rely on food leftovers and scraps from neighbours. Her family has always cultivated paddy, from her childhood in Ghoramara, after the move to Sagar Island, and in the present day in Patharpratima.

Many interviewees spoke of the disappearance of indigenous varieties of rice or were disparaging of the varieties that have replaced them.

While Bidhumukhi Devi does not cultivate rice herself, she has land that she has leased out to farmers. She noted that it is because new rice varieties are quick to harvest as well as high-yielding, and that farmers want to grow them. If they grow native varieties that take longer to mature, their rice will be attacked by birds, as all their neighbours will already have harvested the quickly maturing rice.

“Nothing is similar. The rice that we eat these days taste so bad! I eat only because it is the rice of these times... The Chahao of those days were glistening and shiny like oily ... so delicious and soft. Nowadays this new rice from desh...they are so hard, difficult to swallow...These days, the rice is so dry and tasteless, and when you mix with gravy on the plate, they start getting tougher!” - Bidhumukhi Devi, Manipur

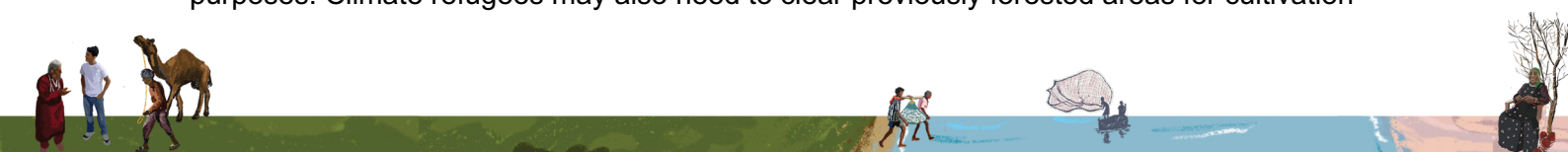
Sandhya Dhal noted that the paddy she receives from her own land of about 1.5 bighas is not enough, so she supplements the rice with boiled corn and vegetables. She reflected on changes in the paddy cultivation time, noting that she has shifted from traditional varieties of rice to cultivars that yield four times as much.

In Kumaon, too, cultivation of traditionally known varieties of rice has disappeared, and Siddhi's interviewee relies on the Public Distribution System (a food security system under the Ministry of Consumer Affairs, Food and Public Distribution (see: <https://consumeraffairs.nic.in/>)) for rice and other grains.

New crops, not traditionally cultivated, are emerging in some regions. Madhavi Devi noted that people are now growing gooseberries and white button mushrooms to meet commercial demands, as well as salad leaves and bell peppers. Potatoes are increasingly cultivated as they are easy to grow. Sandhya Dhal, however, said that she tried growing potatoes once, in Malida, but her crop was attacked by pests and she has not grown them again.

5.3 Land use change

While large-scale land use change in the form of deforestation and industrialisation are drivers of climate change through the loss of carbon stocks, environmental change can also drive land use, as agricultural lands that are no longer cultivable are converted for other purposes. Climate refugees may also need to clear previously forested areas for cultivation



in their resettled homes, and the increased demand for renewable energy may lead to the conversion of areas considered 'wastelands.' These aspects emerged in some OHCC interviews.

Rigzen Dorjay noted that after Tibetan refugees migrated to Ladakh after 1962, the patterns of grazing changed. The previous resource management system, his interviewee Nawang Tharchen felt, had been entrusted to knowledgeable people, but grazing rights were now awarded by a lottery system, not through knowledge of lands or livestock.

In Kutch, Krutika Haraniya's interviewee noted that illegal salt pans have reduced grazing lands and led to insufficient food sources for livestock; herd sizes have thus decreased. Chemicals used in the salt pans have increased temperature and reduced biodiversity. Windmills have taken over common lands as well, and grazing lands have degraded the routes that pastoralists traditionally take. A new use for land in this region is solar energy, with 'wastelands' being taken over for solar panels.

In Kumaon, agriculture and livestock rearing have declined and agricultural lands are increasingly sold for tourism. Many farmers have given up cultivation altogether because the fields are fragmented, yields are low, and agriculture is completely dependent on rainfall which is becoming ever more unreliable. Forests, grazing fields, and common lands have all diminished, leading to reduced food diversity.

In the Sundarbans, prawn cultivation has led to mangrove loss, while erosion, embankment breakage, and soil deposits are increasing in pace as the buffering and protective mangrove belts are lost. However, Bijoli Ghorai (Patharpratima) also reflected that when her family was resettled on Sagar Island after they migrated from Ghoramara following the loss of their lands, they had to clear mangroves in the lands they were allotted by the Block Development Office in order to make it suitable for subsistence agriculture. In Manipur, hillsides are increasingly taken up by companies for growing medicinal herbs, reflecting a change from subsistence farming to cash crops.

Flooding and embankments

"Ma Ganga swallowed up our land... if you were standing on the embankment, she would take you too."

- Bijoli Ghorai, Patharpratima, West Bengal

Living in the Sundarbans would be impossible without the embankments but they have been severely breached in recent storm seasons. In the past four years, the cyclonic storms Amphan and Yaas caused significant damage to crops, property, and fields due to flooding and saltwater incursion. In Manipur, Joyshree Chanam's grandmother has noticed more flooding during the rains after concretization has increased.

In Malida, Sandhya Dhal recalled a time between eight and ten years ago when there was a heavy flood. Her village was on higher ground but people from another village that was lower down were affected and took refuge there, bringing their livestock with them. When they returned after the flood, many had lost their *kachha* (mud) houses and received compensation from the government to rebuild their homes.



In Assam, floods are part of the way of life. Floods recharge the *beels* (lakes). They are essential for the landscape, with migratory birds and wildlife depending on them. It is the intensity of the floods that has changed. Floods that would last 1-2 days now go on for 10 or 15.

“Before the flood happened, it was less intense, there were no embankments in the riverside. Now the embankments have increased so water cannot go wider. Earlier, if a flood occurs, the water will spread wide so the intensity of the flood was less.”

- Ghurali Das, Assam

Earlier, there were no embankments on both sides of the river; now, there are embankments everywhere and a great deal of force is generated. Now, when the embankment breaks, it becomes destructive and rushes into the village. However, embankments become highlands during the floods, sheltering people and cattle. They make encampments on the *bunds* until water levels come down.

Ghurali Das spoke of other reasons why this may be happening. The riverbed has become shallower as deforestation and thus silt deposits increase. Sand mining weakens the banks. The holding capacity of the river has been weakened. Land use change has occurred, including construction in agricultural areas.

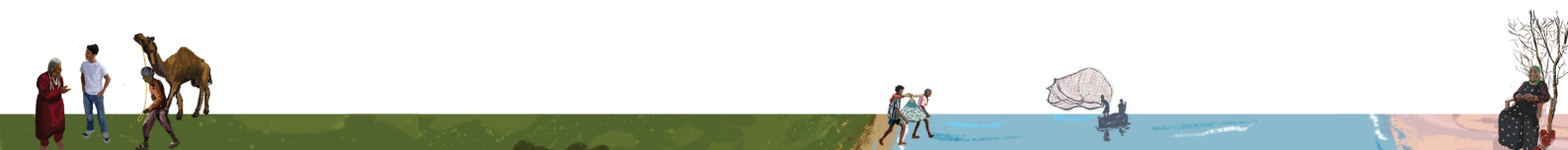
5.4 Human-nature Interactions

Environmental change, exacerbated by the climate crisis, may lead to an increased interactions between humans and wildlife as habitat availability for faunal species declines. Many wild-growing plants, which are foraged but not cultivated, are climate-dependent, and may decline as climatic patterns change. These aspects emerged from some OHCC interviews.

Interactions with wildlife



A young elephant in Dalma, where Gurubari Mardi lives. Photo credit: Rahi Soren



Ghurali Das spoke of multiple instances when he and his family came into contact with large fauna. Once, he and his father were riding their buffalos through the forest, when a male tiger jumped in front of him and crossed the road. On another occasion, he was returning from the forest carrying firewood with his father-in-law when they heard the sound of a bear and, following it, came upon the animal feeding on a termite nest and making sounds. He also saw gharials and interacted with dolphins in the Kopili river.

“There were a lot of river dolphins ... In Shokoriya fishing practice, the person who goes to a deep river generally gets hit by dolphins. Whoever goes to deep water will be hit by dolphins, that is sure. One of my friends was Madan, he was tall, and once we told him to go into deep water while fishing. Once one Dolphin stuck with him, people will be afraid by thinking they are going to bite. But we never harm them nor they harmed us. They never get inside our Polos. Now the numbers of River dolphins have reduced. They generally live in deep water where other fish and turtles also live. Deep areas have been reduced in the river.”

- Ghurali Das, Assam

Not all interactions with wild animals were as uneventful, as in the case of Bijoli Ghorai's grandfather, who was bitten by a snake and died from the injury.

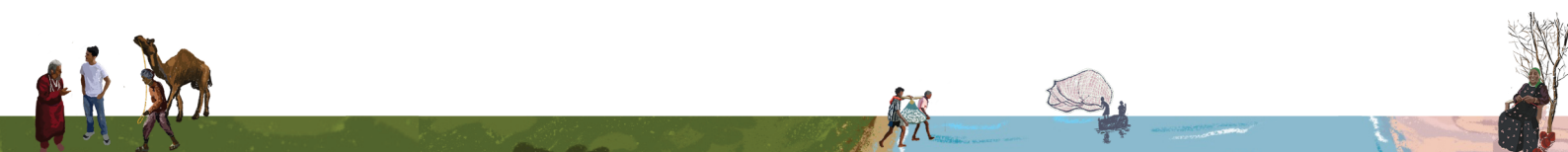
Conflict with elephants also emerged as an important part of the testimonies of Sandhya Dhal and Gurubari Mardi. Sandhya Dhal spoke of *mahua* which is cultivated to make a drink, but attracts elephants.

She spoke also of an elephant breaking down her home but considered the elephant to be a god who had blessed her. It was because the animal destroyed her mud hut that she got a pukka dwelling, she felt.

Forest dependence and foraged food

The forest, in addition to being home to wild animals, is a source of timber, firewood, and uncultivated foods. Ghurali Das spoke of collecting firewood from the forest with his father-in-law. However, reliance on the forest was seen by Gurubari Mardi as a sign of poverty; as her economic conditions have improved, she no longer has to rely on the forest as much.

Bijoli Ghorai spoke of foraging for *giriya saag* (*Suaeda nudiflora*) from the riverbanks when food was scarce, and going into the mangroves to catch crabs when she was younger, and continues to rely on foraged foods in and around the village. In the Sundarbans, crabs and *koi machh* emerge after the rains and can be caught in and around the ponds and flooded paddy fields. Aquatic plants and wild leaves are included in the diet and mixed with cultivated foods during cooking, after being sorted and cleaned.



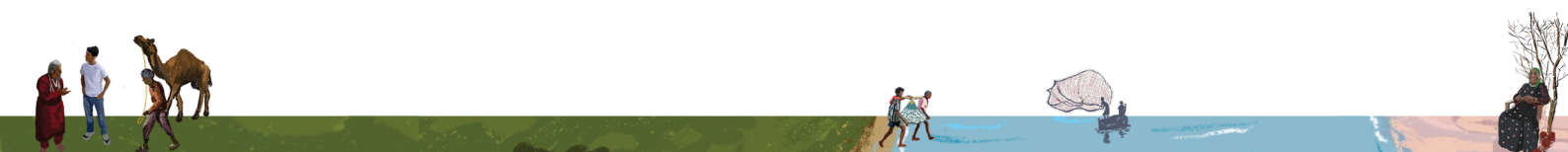


Saags grow in the 'jola jomi' in Patharpratima, Sundarbans, to be collected in baskets before they are painstakingly sorted and cleaned before cooking. Credit: Priyanjana Pramanik

Madhavi Devi collected berries and vegetables that she would bring back for consumption. Sandhya Dhal, too, spoke of going into the forest to collect mushrooms and bitter tubers. However, this has changed over time, and foraged foods are less available now than they were before. In Uttarakhand, Ayurvedic companies are now harvesting wild food and medicinal plants for commercial purposes, and plants that were common are now difficult to find.

In terms of wild boar in Kumaon has traditionally been considered a delicacy, as has porcupine. However, wild meat is no longer consumed as commonly because people prefer to buy meat.

In Manipur, wild mushrooms are an important part of the diet, as are wild plants collected from the forest. However, these mushrooms are rain-dependent. The importance of wild plants is not readily understood as there is more value placed on foods that are bought or cultivated. They are also highly seasonal.



6. Reflections, challenges, obstacles, opportunities

“Our culture and traditions have been passed from generation to generation through dialogue, which emphasises the importance of oral history in our culture.”

- Tanzin Thinley, Spiti

“At first, (my interviewee) was a bit hesitant, but once we started discussing his childhood and youth, he warmed up and became more comfortable. He became so engaged in reminiscing that we had to continue the interview the next day, when he even came to my house to talk more about the past.” - Tanzin Thinley, Spiti

Looking back, some interviewees reflected on the profound impact of conducting interviews in their native languages, which fostered a deep sense of intimacy and connection. They shared stories that resonated with resilience and personal histories, illustrating how these narratives contribute to a broader understanding of local cultures and environments.

Despite challenges like interruptions due to daily tasks or sudden rainstorms, interviewers acknowledged these as inherent to the process of capturing authentic experiences. Sensitivity to evolving social norms and legal considerations around sensitive topics, community grievances or collection of forest products, underscored the importance of ethical practices.

Oral histories emerged not only as records of temporal change but also as crucial tools for exploring the complex interplay between climate change and community resilience.

Language evokes sense of community, ease of communication

Interviews were collected in Kutchi, Spitian, Ladakhi, Kumaoni, Assamese, Manipuri, Bengali, Santali, Malayalam, Jeseri. The fact that interviews were conducted in the native language of the interviewee added a sense of intimacy.

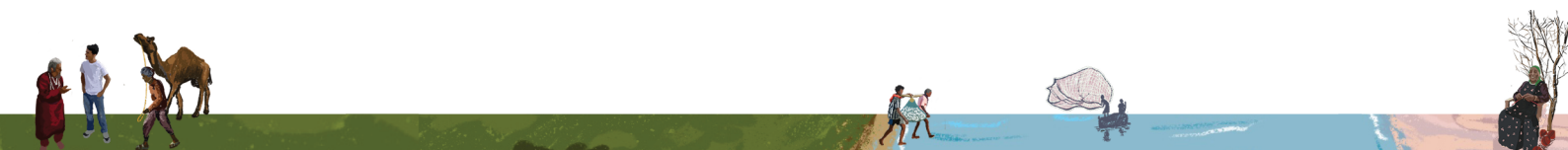
A strong sense of community is evoked by speaking to someone who communicates with you in your own language. Rahi Soren noted that she and her interviewee are both Santals, and that there is a saying that ‘all Santals are relatives to each other.’

Connecting with community elders and one’s own past

Interviews brought out *“the resilience of the human spirit... through war and loss of family and trauma”* (Joyshree Chanam).

For Gaurab Talukdar, who interviewed a community elder he had known throughout his life, Joyshree Chanam, who interviewed her grandmother, and Siddhi Bhandari, who spoke to someone from her hometown, the interviews offered a way to connect with a way of life very distinct from their own experiences of a region they knew intimately.

Sharing stories from their lives made the interviewees feel heard. They were glad that someone was interested in their life stories, and that their experiences counted for



something. Some interviewees expressed happiness that they were contributing to our understanding of history.

Interruptions and gaps in communication

Priyanjana Pramanik and Sayani Saha conducted their first ever oral history interviews during this project. They reflected that they had focused too much on the questions and could have been more responsive to emotional subjects, listening more. Sayani specifically brought up her response when her interviewee spoke of the death of her son, and felt that she had not reacted empathetically enough.

Priyanjana Pramanik also expressed the concern that her interviewee did not feel quite at ease during the interview, which felt more stilted than their previous conversations. She noted that there were many relevant topics and issues that she knew about the area from her own experience, or through previous conversations with her interviewee, but which did not emerge from this interview.

Interruptions led to interviews being cut short. Rahi Soren noted that interruptions came up in the form of tasks that needed to be completed - herding the cows and sheep or covering the straw so that it did not get drenched by oncoming rain. Priyanjana, too, paused the interview due to a sudden rainstorm.

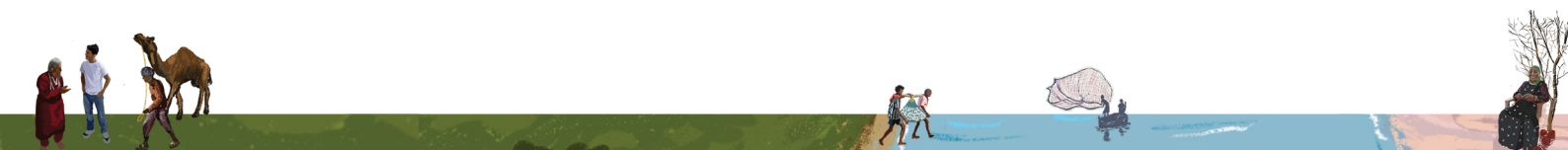
However, interviewers reflected that this is 'part and parcel' of the process of reaching out to people who cannot afford to sit idle for hours to have an extended conversation. There are other challenges to one-on-one interviews, including that many conversations take place in the open air or other shared spaces, making privacy a concern. A point of discussion during the workshop was that 'privacy' that some other societies may take for granted is not possible in rural communities in India. In fact, interviews often take place (and did) in spaces of collective gathering.

Issues around sensitive material

Interviewers often brought up the difficulty of understanding what aspects of an interview should be open to the public, due to concerns around sensitivity. Further, a topic considered sensitive today may not be sensitive in the future; at the same time, a seemingly innocuous comment made today could become sensitive later. This points to the need for periodic sensitivity checks which will be undertaken by the Archives at NCBS.

Joyshree's grandmother spoke about female local community elders who responded to increases in drugs and alcohol abuse by becoming vigilante 'Meira Paibis' or 'torch-bearing women.' This could have been sensitive but she did not mention the names of victims of drug abuse and their families.

Priyanjana's interviewee spoke about issues related to ownership of land - her family was given land 'by the river' and had to clear mangroves to make the area habitable. This was not sensitive at the time but is now illegal in the eyes of the law.



Rahi's interviewee spoke candidly about their grievances with the Forest Department or state governments, experiences with elephant conflict, or described being forced to relocate for the construction of a dam.

Broaching these subjects, particularly conflict, requires sensitivity and should not appear extractive. For this reason, all interviews, after processing, are undergoing thorough sensitivity reviews before they are deposited into the Archive.

Collecting consent, oral versus written

Obtaining written consent, which is an established practice in many contexts, emerged as a challenge for many interviewers. Some interviewees may be unlettered; others may not be comfortable putting their names to paper for various reasons. Many interviewers, instead, obtained verbal consent for the interviews, which they recorded and submitted to the Archive.

Priyanjana Pramanik's interviewee, while she can sign her name, was not comfortable with signing the written consent form, indicating that she would prefer to provide oral consent. The legal-style language may cause discomfort, and the terms in the form may not be well-understood. People may not always understand what they are agreeing to.

Consent forms, while necessary, have limitations. Consent, then, cannot be a one-time instance of permission granted or taken, but an ongoing process based on understanding and respect.

Gifts in place of monetary remuneration for time



Tanzin Thinley gifts a torch to Funchock Namgail. Credit: Tanzin Thinley

Oral histories are a time intensive process, not just for the interviewer but for the interviewee, who have little to no leisure time but are rather taking time out of their labour, whether paid or unpaid, as they speak. Interviewees, however, were compensated by the OHCC project.



Recognising this inequality, project members discussed the need to provide, if not remuneration or compensation, some acknowledgement or token of gratitude for each interviewee's time. This was covered by the OHCC project funding.

During training sessions, the participants established that they did not think monetary gifts to their interviewees were appropriate. Instead, they chose to bring items that their interviewees would find useful, as in the case of Tanzin Thinley who gifted a torch to Funchock Namgail, or small luxuries that might bring them joy, as in the case of the sari that Priyanjana Pramanik brought for Bijoli Ghorai. During planning conversations, an upper limit was set on the cost of each item.

Research permissions and other field obstacles

In most cases, interviewees did not require permits to access the areas where they collected their interviews. However, this was not the case for Rajeswari B.T. and Al Badush, who are researchers working in the Lakshadweep Islands and require permission from the government in order to enter the union territory.

Due to delays in receiving permissions, Rajeswari was unable to collect her interview until April 2024, while Al Badush completed his interview in June 2024. However, there were broader obstacles that delayed fieldwork for other interviewees as well, including local elections and weather-related challenges such as the monsoon.

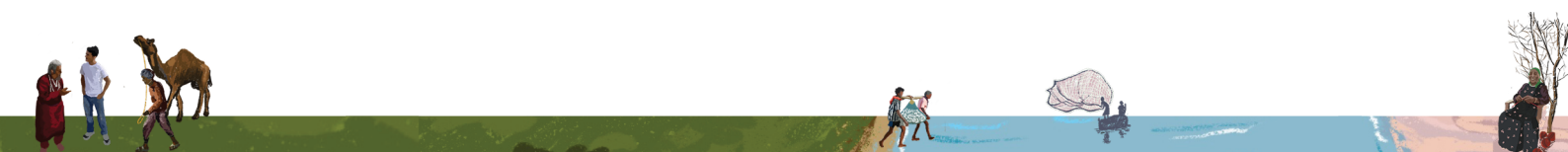
Contribution of oral histories to studies on climate change

In addition to themes around water, foodways, land-use change, and human-nature interactions, an important pattern that emerged was that of 'temporal change recalls.' Narrators spoke not of how things are, but how things used to be, and this was how changes emerged. Often, these descriptions of changing times bring with them a sense of loss - when interviewees noted the disappearance of indigenous varieties of rice, or spoke disparagingly of the varieties that have replaced them, or the disappearance of certain fish, or the changing of the seasons.

When Ghurali Das speaks of the water in the *beels* being so clear one could see the fish within, it is evident that he is remembering something that has changed. When Bijoli Ghorai speaks of it being an established fact that rain falls in the month of *Shravan*, it offers an opportunity to see if that is still the case.

Interviewees did not always attribute reasons for loss, whether to changing climates or to any other cause. Large-scale changes, however, were sometimes understood by interviewees through more local factors, as when Bijoli Ghorai noted that increased ship traffic along the Sundarbans' waterways increased the force of the waves, and increased erosion and the loss of her family's lands.

Oral histories, then, bring out a particular way of knowing and understanding and provide invaluable and irreplaceable tools for gaining insight into the relationship between climate change and community resilience.



7. Afterlife of an interview - handover to the archive

1. *Handover to the Archive*: Once collected, the interviewers began submitting the recording of the interview, consent form or recording of verbal consent, and a catalogue entry (including the transcript) to the Archive.
2. *Sensitivity analysis*: Before they are made accessible to the public, interviews are screened for potentially sensitive subjects. Interviews with sensitive material are flagged, and may have restricted access. Interviews without sensitive material can be made open for public hearing. In some cases, some parts of the interview recording, containing sensitive material, may be muted by the Archive. The restrictions are typically time-based embargoes, and would be revisited periodically by the archives as certain issues may not be sensitive after some time.
3. *Archives Access Page* (see: <https://archives.ncbs.res.in/access>): The access page outlines the Archives' policy for online access to digital objects, stating its compliance with legal restrictions imposed by donors in their Deed of Gift or Consent Form, or any copyright for published material. Public records older than 30 years could be made freely available, while restricted material with embargo periods includes third-party material with explicit directives on it for restrictions, audio-visual material containing sensitive content relating to humans, records that the Archives have appraised as containing sensitive content (such as contact information), records with content that the Archives feels would harm the rights of indigenous, vulnerable, and marginalised groups, and financial, medical, or legal records that have been appraised to have archival value, but with sensitive content.
4. *Adherence to FAIR guidelines*: The FAIR Guiding Principles (<https://www.go-fair.org/fair-principles/>) for scientific data management and stewardship is that data should be Findable, Accessible, Interoperable, and Reusable. These principles emphasise the capacity of computational systems to find, access, interoperate, and reuse scientific data with no or minimal intervention from humans.
5. *CARE principles*: In addition to the FAIR guidelines, the Archives follows the CARE (Collective Benefit, Authority to Control, Responsibility, and Ethics) Principles for Indigenous Data Governance (<https://www.gida-global.org/care>). The FAIR guidelines primarily focus on data characteristics that can facilitate increased data sharing among various entities but do not explicitly consider power differentials and historical context. Increased data sharing without understanding historical contexts can be a challenge to Indigenous Peoples who are asserting greater control over the application of Indigenous Knowledge and data for collective benefit.
6. *Takedown page* (<https://archives.ncbs.res.in/takedown>): Digital material may be removed from the Archives website if it is in breach of the Copyright Act, 1957, if continued public access to the material would be in breach of legal requirements concerning an individual's rights, and if the material is defamatory or obscene, and its continued publication is a violation of the law. Individuals who believe that these circumstances apply to material made available by the Archives, may contact the Archives and submit a takedown request.



8. Looking forward

“We must learn to recognize the past in the present.” - Graham Smith

This preliminary pilot study is not intended to reflect the entirety of the country or the various landscapes where the interviewees reside. Regions such as the Western Ghats, Central India, or the Deccan plateau are notably absent.

Nevertheless, the wide range of responses highlights how distinct experiences can vary significantly even within close geographical proximity—such as between Spiti Valley and Ladakh, or between Assam and Manipur, or from Purulia to the Sundarbans.

Learnings from this project included insights into how to teach and learn globally, building capacities of individuals and NGOs who can then become more collaborative with the communities that they are working with and hopefully, less extractive. This furthers the global discourse around public history and oral history particularly, which has historically been dominated by the global North and the United States specifically.

Much of the insights from oral histories cannot be used directly - the stories offer lessons that must be understood. When it comes to communities threatened by climate change, oral histories offer insights into what they need and what would be required to build effective resilience mechanisms and evacuation plans.

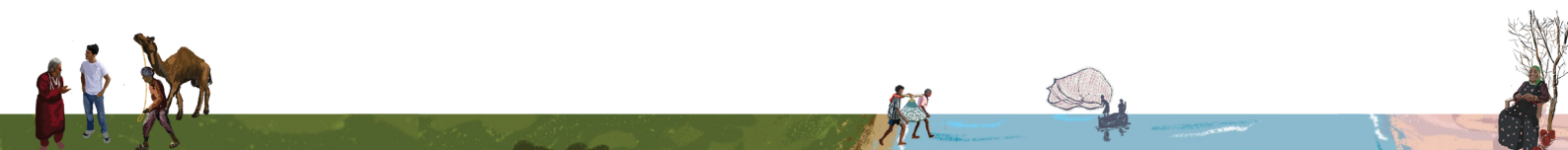
Oral histories to understand resilience and adaptation

Climate emergencies are increasingly common across the world and are most felt by vulnerable communities who are least represented in policy discourse. Before interventions that aim at adaptability and resilience are implemented, they should be designed to be relevant and appropriate for their contexts.

In this regard, oral histories offer insights not only into what has changed for certain individuals or communities, but how they have adapted to environmental change and how they are likely to respond to interventions. Understanding these nuances has implications for whether an intervention is successful. Migration emerges as one strategy for people experiencing severe environmental change or adverse economic conditions. Changing land-use patterns is another - as rainfall becomes unreliable, communities may shift away from agriculture, embracing tourism instead.

Beyond data collection - how the archive can support communities

This pilot project covered 10 interviews in diverse parts of India; extensions of this project could cover more interviews and more landscapes. The significance of their livelihoods and ways of life should be acknowledged, as should our (the interviewers' and oral history community's) learnings from them. An important aspect of bringing the project back to the communities who contributed to it is revisiting them to demonstrate exactly how the oral histories that they gifted are being used, as well as how they can access the archival material, and voice their concerns and suggestions.



In the context of climate change and displacement, the archive could strengthen a sense of belonging among communities in different landscapes and cement their sense of place. Findings from the project will be disseminated through local newspapers and more widely through online magazines and social media. Sharing the contents of the interviews directly with the community can help other elder community members reconnect with their memories and also engage younger generations. This could be through social media, presentations, workshops, programs, or roundtable discussions.

Human-animal conflict, particularly with elephants, is a charged issue in the present day. Conflict leads to loss of crops, dwellings, and in many tragic cases, human lives. Communities cannot always engage effectively with the Forest Department and other government bodies. This project could generate further insights into this difficult topic that can raise awareness and lead to participatory solutions.

Future interviews and analyses

Subsequent stages of the project can involve more communities in more political and geographic landscapes that were not included in the pilot. Additionally, two interviews were not completed within the timeline of the project due to delays in receiving permits to work in the Lakshadweep islands. While these interviews eventually took place in April and June 2024, they were not collected before the workshop and have therefore not been included in the thematic summary and will be part of subsequent analyses.

Next steps

This report will be disseminated among NGO partners who can either collaborate on future projects with us or implement it independently. It will also be attached to the recording as metadata in the archive, and may be utilised as part of a larger grant application. We hope that this project will provide a resource to planners as a way of understanding what communities need in terms of support to build resilience against climatic changes and crisis.

Communications will continue between the Archive and the community, setting up processes through which the community can visit the archive, and the archive can visit the community. Community members deserve to understand how their contribution enters the archive and what form the archival objects take. Planned publications from this project include one that is methods-based and describes the novel training process. A second will focus on the stories themselves, keeping sight of one particular question - what can these interviews do for the communities that we worked with?

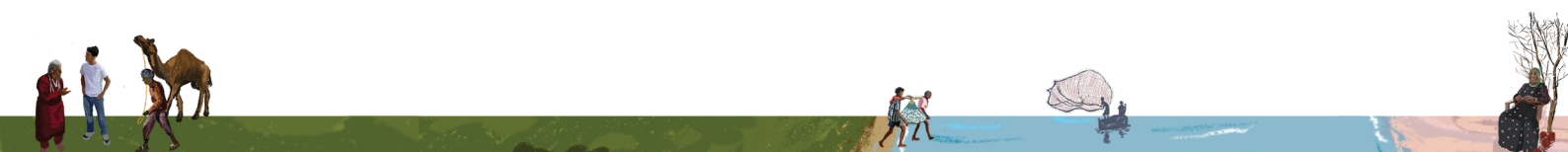
In an extension to this pilot, we hope to work with local governments to identify other questions that we can operationalize, perhaps around how people respond to change, either to an immediate risk or at an everyday level. We also hope to expand the training so that we can work with entire communities, compiling a training toolkit for further use.

“Maybe the people (from the community) have solutions that you (the policy maker or other outsider) don’t, understand risks better than you do. But nobody’s asking them!” - Graham Smith



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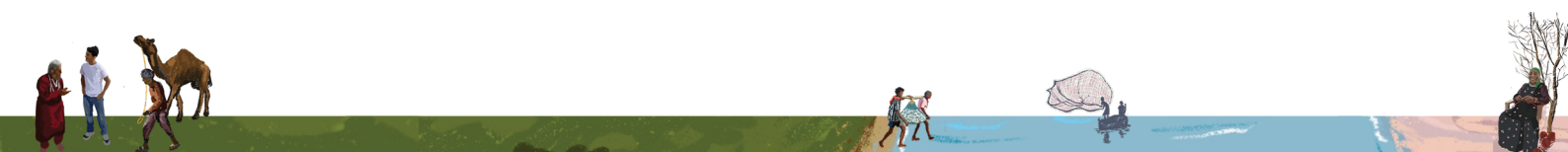
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10. Appendices

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Consent and Agreement Form: Oral History Interview

I. Consent:

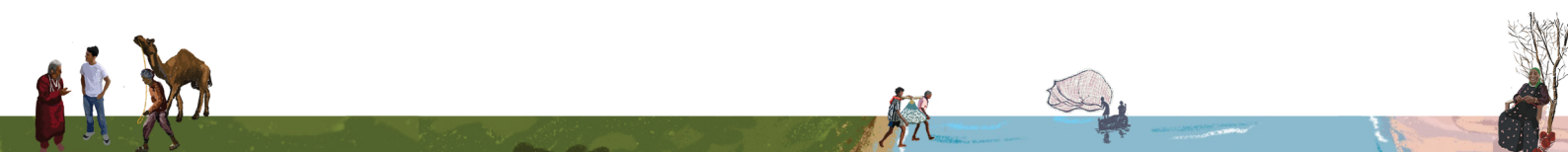
Recordings of oral histories are integral to the intention of the Archives at NCBS to preserve public memory in relation to the history of science in contemporary India. This recorded interview will become part of the collections at the Archives at NCBS (<https://archives.ncbs.res.in/>), where it will be preserved as a permanent public reference resource for use in research, publication, education, lectures, broadcasting and internet access. **The purpose of this Consent and Agreement Form is to ensure that your contribution is added to the collections of the Archives at NCBS in strict accordance with your wishes.**

The term “interview” or “recorded interview” refers to any audio, photographic or video recordings created during the interview process specified below. The term “transcript” refers to verbatim written, typed or printed summary of the recorded interview. The term “descriptive summary” refers to a portion of the catalog entry in the Archives that captures brief summaries of various segments of the recorded interview, as an aid to browse through the content. The term “gift” refers to the interview and/or transcript. This agreement is made between NCBS-TIFR, GKVK Campus, Bellary Road, Bangalore – 560065, Karnataka, India (“Archives at NCBS”) and you (“the interviewee”, “I”, “the interviewer”). This section explains how the recorded interview which you agree to undertake is archived at the Archives at NCBS, and includes a place for you to sign your consent to participate in the oral history.

1. You are being asked to participate in an interview that will be part of the collections of the Archives at NCBS, as part of its larger goal as a collecting centre for the history of science in contemporary India. The interviewee is being asked to participate because the Archives at NCBS believes that their life experiences strengthen our diverse understanding of the history of science in contemporary India. The interviewee will be asked about their life experiences through specific memories, from the early days of growing up, and up to the present date. Interviews do not come with structured questions, and they are often driven by the thoughts and reflections of the interviewee.
2. Based on mutual agreement between the interviewee and the interviewer, the interview can take place over multiple sessions, and each session can take approximately one to two hours. There are no anticipated risks to participation. However, you can withdraw from the interview at any time without prejudice prior to the execution and delivery of this form. During the interview you may request to stop the recording at any time to discuss or clarify how you wish to respond to a question or topic before proceeding. After your interview, you can make restrictions in Section “II. Declaration”.
3. The data contained within this form will be held securely and not shared with anyone, unless the Archives at NCBS is obligated to do so for legal purposes, such as evidencing ownership or demonstrating a valid Agreement. The information contained within the interview itself will be made available (subject to your restrictions) through the Archives at NCBS to researchers, academics and other members of the public who access oral history content. We will keep this data in perpetuity, so as to preserve public memory related to the history of science in contemporary India for future generations. In the event that you choose to withdraw during the interview, any recording made of the interview will be either given to you or destroyed, and no transcript will be made of the interview.

Consent Form – Oral Histories, Archives at NCBS, Rev. 2022-07-19. The Archives at NCBS gratefully acknowledges that this form is developed using templates available through the Archives at NCBS, the University of Minnesota, EMBL Archives, Caltech Archives and the British Library.

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With your permission, a photograph of you will be taken. If you withdraw from the project, all copies of the photograph will be given to you. Any digital image will be destroyed.

4. The interview will be digitally recorded (audio or audio-video), either using an in-person device or through an online software, as mutually agreed by the interviewee and interviewer. After the interview, the Archives at NCBS will create a catalog entry with a descriptive summary, and may also transcribe the interview. Your recorded interview and its produced transcript, if any, will become part of the Archives at NCBS. They will be preserved permanently as a reference resource through a secure digital server, with the same standards as applicable to all collections at the Archives at NCBS.
5. Following the interview, you will be given the opportunity to listen to the recording and/or view the provisional catalog entry and descriptive summary. You can impose restrictions on the interview in Section "II. Declaration", including time embargoes, or withdrawing portions of the interview.
6. Upon signing Section "II. Declaration", the digital recording, catalog entry with descriptive summary, and, where applicable, a photograph and interview transcript will be kept in the Archives at NCBS. Subject to your restrictions, these will be made available for public and scholarly use through the Archives at NCBS. Any member of the general public will have access to them for use in research, publication, education, lectures, broadcasting and internet access, and your words may be quoted.
7. The Archives at NCBS agrees that it will not use or exercise any of its rights to the information in the interview prior to your signing of this Consent and Agreement Form. Reasonable restrictions on the use of the interview can be placed by you in Section "II. Declaration" and will be accepted as amending the Archives at NCBS' rights to the content of the interview.
8. Any restrictions as to use of portions of the interview indicated by you will be handled by creating a public-access recording with muted audio in the requested portions. These portions will be excised from the catalog entry descriptive summary, and, if available, from the final copy of the transcript.
9. The interviewee and the interviewer are both authors of this oral history interview. By signing below, both of you consent to this agreement, which will be carried out in accordance with your wishes.
10. This form can be made available and/or read out in a language of choice for the interviewee upon request for a written or recorded verbal consent. The Archives at NCBS can always be contacted via email (archives@ncbs.res.in), phone (+91-80-6717-6011), or postal mail at the address on website.

I read/heard and understood the above summary of the interview process. By signing below and/or giving my recorded verbal consent, I agree that I consented to voluntarily to participate in this recorded interview, and agreed to the above summary.

Name of interviewee _____

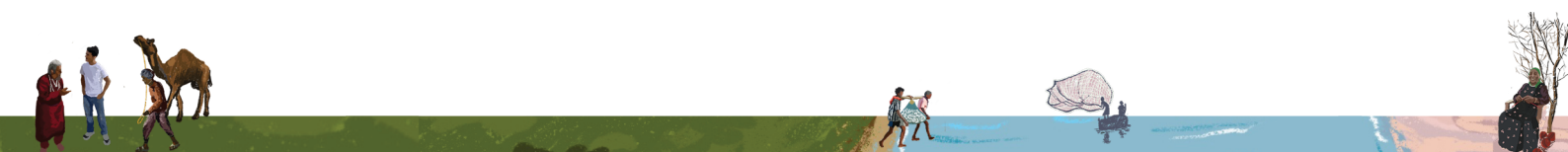
Address of interviewee _____

Date(s) of recorded interview(s) _____

Signature, Date and Place _____

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Consent and Agreement Form: Oral History Interview

Recordings of oral histories are integral to the intention of the Archives at NCBS to preserve public memory in relation to the history of science in contemporary India. This recorded interview will become part of this collection at the Archives at NCBS, where it will be preserved as a permanent public reference resource for scholarly and public use.

II. Declaration:

- a. I read and understood Section I. Consent and consented voluntarily to participate in this interview.
- b. I hereby assign to the Archives at NCBS ownership and copyright of the recorded interview and transcript, if available. The interview (audio or audio-video), its catalog entry with descriptive summary and/or transcription will be made available for public and scholarly use through the Archives at NCBS, as outlined in Section I. Consent, and unless subject to any restrictions specified in paragraph (c) below. The interviewee and interviewer retain authorship of the material, and the Archives at NCBS grants the interviewee and interviewer a non-exclusive license to use and publish from this material during their lifetime.
- c. I wish to impose the following restrictions on this donation to the Archives at NCBS:

By signing below and/or giving my recorded verbal consent, I agree to the above declaration.

Interviewee name _____

Interviewee signature & date _____ Place _____

Interviewee email ID & telephone number _____

Interviewer name _____

Interviewer signature & date _____ Place _____

Interviewer email ID & telephone number _____

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