

Art, Activism and Sundarbans: A case study of Musical Environmental Movement  
through Film

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## Abstract

*Art, Activism and Sundarbans: A case study of Musical Environmental Movement through Film* is a case-based study of ecocinema. Ecocinema studies involves the ecocritical reading of films with or without overt environmental messages. Scholars in the relatively new, yet the burgeoning field of ecocinema studies primarily critique fictional and documentary films. However, I am among a subset of scholars (Seymour, 2014; Pedelty, 2017) who are bringing a more directly engaged, field-based, and production-oriented focus to ecocinema studies and environmental communication. My research in the Sundarbans (India-Bangladesh) involves artists-activists who use music and performing arts to communicate ongoing environmental issues. I used a field-to-media method to film, study and analyze an environmental movement that advocates for the mangrove forest. That work is presented and framed partially through writing, but more fully through the documentary film, *Musical Mangrove*. The written sections of this dissertation are in conversation with ecocinema scholars such as Rust, Monani and Cubitt (2012), von Mossner (2014), Macdonald (2004, 2012), and Ingram (2005) to suggest a more collaborative and production-based approach to the study of ecocinema. Additionally, this work points out the need for similar participatory approaches to environmental communication and starts a dialogue between ecocinema studies and environmental communication. Ultimately, my goal is to bring together production-based experience as a field researcher with the broader field of film criticism, especially in terms of environmentally themed film and film studies, for sake of making a distinct, experimental, and integral contribution to ecocinema studies, media studies, and environmental communication more broadly.

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## Introduction

This dissertation is a case-based study of ecocinema. Ecocinema studies involves the ecocritical reading of films with or without overt environmental messages. While the current course of ecocinema scholarship brings the ecocritical lenses to the realm of cinema, ecocritical readings limit the scope of collaborative and production-based approaches to the field. “Reading” a film calls for specific approaches. It is not the same as reading a book. Books are written by a single author, or a handful, whereas a film is made by many. Film making is a complex collaborative process that needs more involved methods than *reading*. For example, the film I made for this dissertation, *Musical Mangrove*, has a mere runtime of 30 minutes, but the film results from the collaboration of at least 100 people. Thus, ecocritical readings of films can rarely touch the complexities and multi-layered collaboration of film productions. This dissertation attempts to bring a production-based case study from the forests of the Sundarbans, the world’s largest mangrove forest, shared between India and Bangladesh, to illustrate how a case-based production-oriented study can inform ecocinema studies and environmental communication.

Based on a literature review, the first chapter charts the history and current paths of ecocinema studies. Biologist Roger C. Anderson coined the term ‘ecocinema’ in 1966. He proposed capturing wildlife along with their noise, replicating their odor, and showing it in a temperature-controlled setting to provide an authentic experience of nature to the audience. However, the study of ecocinema, as it stands today, is attributed to Scott MacDonald (2004). He rejuvenated the term in his classic essay “Toward an Eco-Cinema.” Later he removed the hyphen between “eco” and “cinema” in his theoretical

revision “The Ecocinema Experience” (2013). As Lavin and Kaplan (2017) put it, ecocinema are analyzed using two distinct techniques—the macro and the micro. While the macro lens focuses on how films represent the earth-based climate systems and how they show or omit climate and environmental dilemmas that humans face, the micro-lens analyzes how race, gender, and class play a role in the cultural work of climate fantasies. Subsequently, the chapter chronicles the canon of ecocinema studies and talks about the films and scholars that catapulted and shaped the subfield. Scholars have studied dystopian films such as *The Day After Tomorrow* (Emmerich, 2004), *Elysium* (Baden Powell & Blomkamp, 2013), posthuman representations such as *Avatar* (Cameron, 2009), documentary films such as *An Inconvenient Truth* (Guggenheim, 2006), *Before the Flood* (Stevens, 2016), animated films such as *Wall-E* (Lasseter & Stanton, 2008), *Frozen* (Del Vecho, Buck, & Lee, 2013), and independent films such as *Grizzly Man* (Beggs & Herzog, 2005) through the ecocritical lenses on both macro and micro levels. Using the same lenses, I read an Indian environmental film, *Parched* (2015). The analysis parallels how the film portrays the leading women and the barren lands of north-western India. Finally, the chapter talks about the limitation of ecocritical readings and calls attention to more directly engaged and production-based methods to study ecocinema.

The second chapter is dedicated to analyzing the relationship between environmental communication and ecocriticism. Although both ecocriticism and environmental communication seek to examine how mediated domains, such as literature and journalism, depict nature, they have existed as different subfields for decades without many junctures or interdisciplinary discourses (Slovic et al., 2019). Recent scholars such as Slovic, Rangarajan, and Sarveswaran (2019) intended to bridge the gap. They argue

that ecocriticism emphasizes popular culture and high art, specifically focused on the activist, ethical and aesthetic dimensions; however, environmental communication has been more pragmatic. Nonetheless, the fascination with human interactions and the belief that improving communication empowers societies towards more mindful conservation practices remained the core of both sub-fields. The chapter centers on the immediacy of climate-related communication and how both subfields can benefit from each other's work. Environmental communication and media studies have based their work for decades on the premise that media making is a centralized process. While the centralized mainstream media making still holds its ground, cheap digital technologies, video sharing platforms, and participatory nature of social media blur the lines between production-distribution-consumption. The scholars of environmental communication are calling attention to the participatory nature of media in recent years, and I introduced my documentary film, *Musical Mangrove*, as an example of production-based collaboration that can allow new methods to the subfield.

*Musical Mangrove*, the documentary film itself, is the third chapter of my dissertation. The readers need to watch the film to proceed to the fourth and final chapter. *Musical Mangrove* is about an artistic and musical environmental movement. The documentary film shows the movement that has emerged to save the world's largest mangrove forest, the Sundarbans (shared between India and Bangladesh). The film results from community co-created media making in the Indian part of the forest and urban Bangladesh. Through the interviews of activists, artists, and academicians and their performances, the film showcases the short and long-term threats to the forest posed by mushrooming ecotourism business and industrial encroachment. Keeping the value of

participatory media in environmental communication at the core (Harris, 2018) and acknowledging the role of practice-based media in environmental activism (Pedelty et al., 2020), the film brings voices of the marginalized communities to the center. The documentary follows two simultaneous protagonists: Arjun Mondal and his indigenous musical groups from the rural Indian forests of the Sundarbans, and the other being *Samageet*, *Mabhoi*, and *Bhatiyal Sohure*, three urban intellectual groups of artists from Bangladesh. Both the groups and individuals are using music and other art forms to raise awareness and protest unsustainable industrial practices. The filming method is derived from the idea that text-based scholarly mediations of rituals and practices fail to account for the visual and sonic properties of audio-visual media (Deger, 2013). Thus, films are not just a medium of recording and archiving; the process itself leads to critical revelations. Surfacing the value of community-created media and indigenous knowledge, the film acts as a pragmatic approach to solving environmental issues. *Musical Mangrove* is a medium of communication for the historically underrepresented groups from south Asia in a nutshell.

The fourth and final chapter of this dissertation is “*Field to Media Methodology in the Sundarbans*.” The chapter describes the method of my doctoral research. The reason that a methods chapter comes this late in my dissertation is because of the unconventional nature of my doctoral research. One needs to watch the film and learn about the practical and theoretical premises of my work in order to comprehend the immediacy and critical need of such methods. I used a *Filed to Media* method to film, study, analyze and propel the musical responses to the environmental issues in the forest of the Sundarbans. “*Field to Media* involves using video production to study and amplify ecomusical responses to

climate change, pollution, deforestation, and other environmental challenges (Pedelty et al., 2020, p. 24).” Blending participant observation with participatory action research *Field to Media* from its very core intends to act as a pragmatic process. While *Filed to Media* is informed by Freirian educational philosophy (2000) of dialogues, it also shares knots with the visual anthropology and performance studies as well. In performance studies, Schechner (2003) introduced the idea of quadrilogue. Whereas dialogue traditionally accounts for two individuals, quadrilogical relationships involve various players and their shared rapport. Schechner categorized, all the while acknowledging the fluidity of the definitions of these categories, the players as performers, partakers, sources, and producers. In the case of *Musical Mangrove*, both the idea of quadrilogical relationships and the fluid nature of the category proved instrumental. I painstakingly describe my experiences and processes in this chapter to not only elaborate how the work of a researcher can be enhanced by more hands-on practices but also how these methods reveal tacit realities which are otherwise overlooked in text-based analysis.

This final and the longest chapter also charts the history and geography of the forests of the Sundarbans. In describing the Sundarbans, Kafil Ahmed, one of the senior-most artist-activists of Bangladesh, said, “The Sundarbans is a country by itself. There is no India or Bangladesh of it.” The archipelago is also called *Bhatir Desh*. In Bengali, the regional language, *Bhati* means ebbtide, and *Desh* means country so, *Bhatir Desh* is a country of ebbtide (Ghosh, 2005). As per popular belief, the name Sundarbans came from the abundance of Sundari trees (*Heritiera fomes*) in the region. However, the literal meaning of Sundarbans is a beautiful forest because *Sundari* means beautiful,

and *ban* means forest in Bengali. In 1987, UNESCO declared it a world heritage site, and in 1992, the islands were designated a Ramsar site. The mangrove is a cluster of small low-lying islands spanning about 6000km<sup>2</sup>, including both nations (Naha et al., 2016). The elevation of the forest is less than 5 meters (Sen, 2020). The forest is not only the habitat of endangered species such as the Royal Bengal Tigers, Irrawaddy dolphins, and Ganges river dolphins but also habitats nearly 7.2 million (4.5 in Indian Sundarbans and 2.7 in Bangladesh) people whose livelihood depend on natural resources (Danda et al., 2019). Nonetheless, the region is considered a wilderness by the officials of both India and Bangladesh. Unsustainable ecotourism and industrial encroachment immediately threatens the very existence of the forest and the people, while the sea-level rise and extreme weather events triggered by climate change threaten the forest, its flora, and fauna in the long run. To counter these threats, the natives of the Indian part of the forest and the urban intellectual of Bangladesh conjured an artistic movement. The chapter also maps the trajectory of the movement and its key players. Bringing all the elements of hands-on production experiences, the sections highlight how the uniqueness of a site (in my case, the Sundarbans) informs ecocinema and focuses on the centrality of community-based activism in environmental communication.

Ultimately this dissertation is a coherent argument for bringing a more directly engaged field-based and production-oriented research method to the subfield of ecocinema studies and environmental communication. In doing so, the chapters acknowledge the critical contribution of the existing scholarly work and call attention to their limitations. The first chapter talks about the ecocinema studies at length, reads an Indian environmental film, *Parched* (2015) ecocritically, and draws attention to the lack

of field-based work in ecocinema studies. The second chapter poses *Musical Mangrove* as a production-based case study of ecocinema and shows how it can inform environmental communication by decentralizing media making. The documentary film, *Musical Mangrove*, is the third chapter that shows the artistic and musical movement that has emerged in the forests of the Sundarbans, the place of my case study. The fourth and final chapter describes the *Filed to Media* method, which has guided this project. The artistic movement in the Sundarbans, its course, and its key figures are also elaborated in this chapter. Together all the chapters convey the production-based experience of a field researcher with the broader field of film criticism, especially in terms of environmentally themed film and film studies, for sake of making a distinct, experimental, and integral contribution to ecocinema studies, media studies, and environmental communication more broadly.

## Chapter: 1

### **Literature Review: Ecocinema and Ecocriticism**

This chapter intends to chart the trajectory of ecocinema studies, and its key and current debates. While keeping ecocinema studies at the center of the theoretical conversation, the chapter also teases out the close ties of ecocinema studies with the field of ecocriticism. Both ecocriticism and ecocinema studies have been successful in highlighting the critical role environment plays in literature and films; and how the environment is mediated by them. However, the primary method has been ecocritical *reading* of films which more or less is similar to reading printed texts such as books and journal articles. As much as academia would love to rely on the method, films are not made in the way books are written. Thus, *reading* a film, comes with its own pitfalls. The method leaves the direct community engagement and behind the scenes complexities of cinema making. My community-based production-oriented research bridges that gap between theory and practice. *Musical Mangrove*, my case study from the transboundary Sundarbans (India-Bangladesh), the world's largest mangrove forest, calls attention to the lack of engagement and community participation in the existing realm of ecocinema studies and ecocriticism. Drawing from the robust theoretical tools of the field, I read an Indian environmental film ecocritically in this chapter. Ultimately, my goal is to map the opportunities and challenges of ecocinema studies and offer *Musical Mangrove* as an alternative yet complementary method to the existing dogma.

### **Ecocinema**

The study of films in the realm of ecocinema, branches from an umbrella term 'ecosee' which "is the study and the production of the visual (re)presentation of space,

environment, ecology, and nature in photographs, paintings, television, film, video games, computer media, and other forms of image-based media (Dobrin & Morey, 2009, p. 2).” Ecocinema narrows down the scope of ecocriticism to moving images. As a niche field of study, it ecocritically reads films with or without a clear environmental message. Ecocriticism takes an environmental approach to cultural studies and textual analysis (Slovic et al., 2019). It developed eventually from study of literature with a focus on the environment to the study of films and other audio-visual media. Ecocinema is a new but burgeoning field of research. In 1966, American biologist Roger C. Anderson coined the term ‘ecocinema.’ He proposed capturing wildlife along with their noise, replicating their odor, and showing it in a temperature-controlled setting to provide a true experience of nature to the audience. But the term was rejuvenated by MacDonald (2004) in his classic essay “Toward an Eco-Cinema.” Later he removed the hyphen between “eco” and “cinema” in his theoretical revision “The Ecocinema Experience” (2013). As Lavin and Kaplan put it,

“The analyses of ecocinema are addressed using two distinct methods—the macro and the micro. The macro method studies how films represent the large-scale processes of earth-based climate systems, and its lens evaluates how films represent climate and environmental dilemmas facing humans as a species. The micro-lens provides enhanced analyses that explore how gender, race, and class figure into the cultural work climate fantasies perform.” (Lavin, & Kaplan, 2017, p.2)

Scholars have studied science fiction dystopian films such as *The Day After Tomorrow*, *Elysium* (Baden Powell & Blomkamp, 2013), posthuman representations such

as *Avatar* which displaces the natural with a “self-organizing and yet non-naturalistic structure of living matter itself (Braidotti, 2013, p. 1),” documentary films such as *An Inconvenient Truth*, *Before the Flood*, animated films such as *Wall-E* (Lasseter & Stanton, 2008), *Frozen* (Del Vecchio, Buck, & Lee, 2013), and independent films such as *Grizzly Man* (Beggs & Herzog, 2005) through the ecocritical lenses on both macro and micro levels. In recent years, numerous books and articles have been published on ecocinema. While there are books on country-specific film cultures—such as those of China (Lu & Mi, 2009) or the United States of America aka Hollywood (Ingram, 2000)—some books are collections of several essays on different film cultures all over the world (Gustafsson & Käätä, 2013). Some collections define the theories and practices of ecocinema (Rust, Monani & Cubitt, 2012; von Mossner, 2014). Through ecocritical reading, using both macro and micro methods, the scholars are theorizing ecocinema practices while defining the field. Scott MacDonald (2012) defines ecocinema as slow and avant-garde which allows a heightened aesthetic awareness of the world around. He claimed that these art-house films might play, “a small but useful role in helping viewers become more mindful of the implications of their more conventional cinematic experiences, and more patient not only in their engagements with the environment, but in their efforts to guide inevitable environmental change in directions that nurture a more healthy planet” (MacDonald, 2012, p. 41). Opposed to MacDonald’s reliance on art house, avant-garde filmmaking, David Ingram eco-critically reads films from very different genres to better understand environmental issues (2012). Andrew Hageman argued that all films are constituted on the ideology of geologically sustainable capital and one needs to study the contradictions to relearn how to exist ideologically and

ecologically (2012). Rust and Monani argue that ecocinema does not necessarily need to have a robust environmental message (2012). Kaplan (2015) used the notion of climate change as a form of “slow violence” and studied dystopian films. She argues that dystopian films aggravate our sense of impending danger and studies the cultural shift that has taken place because of global acceptance of climate change.

Transnational ecocinema, takes the micro-lens and explores the theme of global disconnect and inequality that globalization has exacerbated (Gustafsson & Kääpä, 2013). Ivakhiv (2013) claims that ecocinema scholars analyze the discursive and narrative structure of films along with its larger inter-textual relation with the world and its capacity to change the perception of the larger world. Currently, ecocinema scholars have explored environmental justice, environmental aesthetics and ethics, sustainability, pollution, animal studies, posthuman studies, food studies, climate change, health studies and so on (Chu, 2016). While most of the scholars are focusing on the seriousness of the issues, some are moving beyond the dire and heavy conversations around global warming and climate change. For example, Seymour (2014) addressed the audience burn out that took place after *An Inconvenient Truth* (2006) and asked scholars to stop taking their work too seriously so that they can reach a larger cross-sectional audience by using ironic and comedic strategies like *Idiocracy* (2006). On similar notes, Osnes, Boykoff and Chandler’s (2019) quantitative study proves the positive impact of comedy in climate communication. Their research explored the role of good-natured (kind in intent and good for nature) comedy beyond satire for sustained climate action. They found that while using good-natured comedy to communicate about serious environmental issues, students feel more joyful and hopeful as climate communicators. The researchers

identified their work as creative climate communication which is similar to the efforts of Ecosong.net. The website is run by a group of artists-researchers who are using music videos to communicate environmental issues (Pedelty, 2017). The group uses video productions without explicitly engaging with ecocinema studies, although Pedelty (2016) has used these productions as field to media experiences to theorize coproduction, community, and most recently, “boundary objects” (Pedelty, 2019). To continue the trend of creative communication I used music to learn the role of ecocinema through production-based case studies. While identifying the role of music in propelling environmental movements, my work complements Sarkar and Walker’s (2009) work on Documentary Testimonies. As the scholars suggested, from the limitations of talking-head documentaries to the establishment of audio-visual contents as testimony, “*Musical Mangrove*” illuminates the relationship between “documentary” and testimony.”

### **Ecocriticism as a Method to the Study of Ecocinema:**

Ecocriticism, the textual analysis of culture with an environmental lens, gained momentum in the mid-1990s. Scholars argue that ecocriticism emerged with Meeker’s “literary ecology” (1974) where he synthesized biology with literature. The term ecocriticism emerged four years later when Rueckert (1996) combined literature and ecology to learn how the creative and visionary knowledge from literature could be used to mitigate the human induced ecological problems. However, scholar such as Mazel (Leopold et al., 2001), argue that the field existed even in the ancient time through the mention of nature in sacred texts. According to the wave theory of ecocriticism, the first wave started with Rueckert’s 1978 essay, “Literature and Ecology: An Experiment in

Ecocriticism.” The author argued that ecological concepts have always been embedded in literary expressions such as poetry. Arguably the second wave builds on moving from romanticizing nature to talking about social justice, slow violence of post colonialism and so on (Hiltner, 2014). Stirring from North America centered studies, the third wave brings a global and diverse gender approaches to ecocriticism (S. Slovic, 2010). The fourth wave brings animal studies, material ecocriticism, post human ecocriticism and queer ecocriticism (S. R. and S. Slovic, 2018)

Eventually ecocriticism gained popularity as an interdisciplinary approach to the study of the relationship between literature and the physical environment. But limiting the scope of ecocriticism to literature failed to eliminate the polarized notions of society and nature which was the ultimate goal of ecocriticism. Studying only literary works did not encompass the larger body of audio-visual artwork including films, music videos and paintings. Hence, ecocriticism of films emerged (Lu & Mi, 2009). The current body of ecocinema literature largely depends on ecocriticism. But my argument is that ecocriticism limits the scope of ecocinema studies by ignoring the complex and collaborative film making process. I recommend moving beyond the textual reading of media objects and embrace a more hands-on media making approach to study media.

### **An Ecocritical reading of *Parched***

In describing *The Day After Tomorrow* (2004), one of the very first Hollywood blockbusters on climate change, Rust (2013) calls attention to the need for sustained ecocritical reading of environmental films. As anthropogenic global warming gains more traction in mainstream Hollywood films, it is crucial to point out cinema’s ecological ramifications. In the late 1980s and early 1990s, the scientific consensus about global

warming started becoming common knowledge. While in the US, it was countered by propaganda by the oil industries; National Film Awards, organized by the Indian government's Directorate of Film Festivals, announced an award for the best feature film focusing on environmental concerns. The first recipient of the National Film Award for Best Film on Environment Conservation/Preservation was *Bonani* (1989), an Assamese film directed by Jahnu Barua. The film follows the story arch of a forest ranger who opposes illegal timber merchants and contractors to protect the interests of impoverished tribal communities. As of 2021, 22 films have received National Film Awards in this category since 1989. Given the 22 officially recognized languages in India, six films in Malayalam language and five films in Kannada language have won the award. Surprisingly, with 57.09% speakers (including second and third language speakers), Hindi films have won only one award in the category. Moreover, the films in the second and third most spoken language English (10.67%) and Bengali (8.85%) have never won the award. As the statistics show, there is a dearth of environmental films in Indian cinema. The award system also suffers from a lack of mainstream and/or alternative narrative around environmental films in India. Additionally, the films released in languages other than Hindi, seldom garners enough distribution to be able to reach a wider audience. However, when streaming platforms such as Netflix and Amazon Prime Videos opened their market in India, the regional films (films released in languages other than Hindi), found ways to reach their audiences. Previously the films which were limited to the festival circuits, now had the scope to find viewers. Thus, films like *Parched* (2015), available on Netflix, got more media attention than most the national award-winning environmental films. The film not only caught eyes of the critiques, some of the

leaked scenes also popularized the name of the film among audiences. So, in order to bring Indian environmental movies in the context of the ecocinema scholarship, I will textually analyze an Indian narrative film, *Parched* (2015).

Written and directed by Leena Yadav, *Parched* is a 2015 Hindi Indian drama. The film opens with the dry, barren yellowish wide shot of a bus stop in a fictional desert village named Ujhas in Gujarat. The two leading ladies, Rani and Lajjo, hop on a bus. Cut to a few inductive shots of inside the bus; the audiences see some glimpses of rural northwestern India. Cut to another wide shot of a village where Rani and Lajjo see a potential 15-year-old bride for Rani's teenage son. Cut back to the bus stop, where Rani's son and his goon friends harass a woman by making vulgar jokes and gestures because she is college-educated. The tone of the film is set.

Shot in Jaisalmer, in the heart of the Thar Desert in Rajasthan, the cinematographer Russell Carpenter, who won the Academy Award for Best Cinematography for *Titanic*, skillfully captures the scorching roughness of the terrain. The water here is as scarce as love and respect for women. The scarcity of water resources in Rajasthan is the highest amongst Indian states. The state has 13.88% of India's arable lands. 5.67% of the nation's population and about 11% of livestock reside in the state of Rajasthan. However, it has only 1.70% of groundwater and 1.16 % of surface water ("Water Resources of Rajasthan," 2018). 16% of the world's population resides in India, but the country has only 4% of the world's freshwater resources. Fetching water has been women's job for centuries in rural India. Little girls are denied education just to fetch water for their families. According to a UNICEF report, one in every five children faces water scarcity globally. A rural woman in Rajasthan has to walk

as much as 2.5 kilometers to reach a water source. Though never explicitly mentioned, perhaps that is why the groom's family pays the bride's family a dowry in this fictional village of Ujhas in the film *Parched*.

While *Parched* does not overtly make statements about any environmental issues, it constantly draws parallels between its leading ladies' loveless and barren lives and the arid locations. The story centers around Rani, a widow who lost her husband at the age of 17; Lajjo, a perceived infertile woman in an abusive marriage; and Bijli, an erotic dancer and sex worker in a traveling entertainment company. The barren landscape of the film complements the harsh surroundings of its protagonists. The lack of life in these lands often literally matches Lajjo's inability to have a child. Notably, the word *Banj* (barren) is used to describe a woman who cannot have children as well as infertile land in Hindi. The similarities between the fertility of the land and a woman are evident throughout the film. Thus, when Lajjo finally realizes that her infertility can be attributed to her husband and copulates with another man to get pregnant, the next scene takes all three of them to a lake. We see all three of them bathing and chatting next to a lake under the night sky. The scenes contrast the dry yellows of the day times and replace the screen with cold blues. We see them happy, free, and devoid of the worries that surround them during the day. Nature-human binaries are blurred.

In describing the film, one of the leading ladies of *Parched*, Tannishtha Chatterjee said, "America had *Sex and the City*, let's make sex in the village. It's women, their desire, their lives and female bonding." On its face, *Parched* is a film about women's issues, including child marriage, marital rapes, domestic abuse, misogyny, and toxic masculinity. The film intends to show its urban audiences a glimpse of the rural women

from northwest India who rarely make an appearance in the media. However, the stories and the sub-plots of the film are never separated from the surrounding geography. The inner orientation of the characters is aptly reflected in the outer orientation, the sets, the locations, the ambiance, everything pieces together to embody the journey of the women in the film. The tough life in the arid terrain mirrors the difficulties of the protagonists. In the film's final scenes, these women break free from the social shackles. Finally, some greenery enters the landscape. As they embark on a journey, the greenery becomes more prevalent on the screen.

Rust et al. (2013) suggested that ecology can neither be separated nor be read in the film without the parallels drawn between the humans and non-humans in the film *Parched*. While such reading draws attention to how the environment is portrayed, manipulated and/or omitted in media, its lack of insight into the production process delivers a skewed result. For example, it is hard to assume the reasons behind the embodied choices a filmmaker makes during pre-production, production and post-production. The scenes, locations, and sets might not be there only for creative reasons, but also, they can be inspired by financial and logistic availability. Similarly, the director is not the only person making decisions on a set. Although hierarchy exists, the cast and crew play critical roles that contribute to the overall shape and feel of a film. *Reading* a film assumes the omnipotence of a director which is far from reality. Thus, I call for attention to a more engaged and integrated process to study media objects.

## Beyond the Existing Tools

Asking for collaborative and production-based methods to study media is not novel. Media anthropologists have been calling attention to it for more than a decade. Croteau (2006) pointed out the need to move beyond the existing methods of media studies that primarily talk about centralized media production. As the internet becomes more affordable, accessible, and cheap production technologies become ubiquitous; an era of self-produced media emerges. Croteau predicted while the mainstream corporate media will remain powerful, small content creators will have the means to create and distribute their content. Thus, media scholars and researchers will be faced with exciting opportunities and challenges to cope with the forces of self-produced media content.

Jennifer Deger (Deger, 2013) talks about the scopes of new media in aboriginal media and how new media broadens the scopes beyond representational politics. Studying media in and with Yolngu, a secluded Aboriginal community in northern Australia, the author argued that the affordance of new media, in her case digital media technologies, made the community rediscover modes of image-making. They created a distinct world of Yolngu rituals fusing their performative dynamics with digital media. Deger points out that *Christmas Birrimbirr* (Christmas Spirit), a video artwork created by the community, emphasizes more on participatory creativity than the individual pursuit of novelty, a key point to ponder while working with communities.

In another project, building on David MacDougall's (2005) idea that films can convey impressions, experience, and understanding that are beyond the scope of articulations, Deger (2016) made a short film, *Christmas with Wawa* (Christmas with Brother). The film focused on the author's tacit understanding of the Yolngu rituals.

There are no interviews, captioning, voice-over, titles, or observed conversations in the movie. According to Deger, although words matter, she only focused on the sensory, affective, associative, and emergent meanings. *Christmas with Wawa* is a film with aesthetics, but not a documentary about the people and their rituals. After a screening in Gapuwiyak (Northern Territory, Australia), the film inspired similar experiments with participatory audio-visual media making. While encouraging her colleagues to opt for ‘in kind’ audio-visual ethnography Deger cautions against sacrificing politics and ethics at aesthetic cost.

In a similar vein, Sniadecki (2014) made a documentary film about migrant workers and urban spaces. Collaborating with the workers, site managers, and the city dwellers, the author, spent three weeks filming a demolition site in the capital of China’s Sichuan province, Chengdu. The researcher called for a need to accommodate multiple interpretations and alternative archives of audio-visual media. Sniadecki drew attention to the difference between a film and written ethnography by focusing on phenomenology, sensory ethnography, and cinephilia. The author argued that the traditional ethnographic approach to media production tends to reduce the meaning embedded in images and sound to mere arguments to illustrate cultural data. The work deviates from the limited linguistic and propositional value of visuality and aurality while appreciating the unique powers of sound and image.

Harris (2018) strongly advocated for participatory media making. The author claimed from his self-ethnographic experience that pro-active use of media disrupts power relations and potentially became a political and social force for the marginalized groups. While the mainstream media ignores the needs of underrepresented groups,

community-based media making empowers them. Self-representation equips the communities with the capacity to reflect on their own political, social, and cultural power relations.

Scholars such as Leurs et al. (2018) took a different approach to integrate media literacy through making media. They studied how making media through smartphones can raise critical consciousness and strengthen participation among young migrants, especially refugees. The scholars initiated a media literacy program with teachers and 100 students at a Dutch “International Transition Classes” school. The students were asked to create media in order to gain awareness of how young migrants are often subject to stereotypical media representation. In a similar strain, another study explored Critical media literacy through making media; scholars (Bruinenberg et al., 2019) studied how knowing the production process shapes young migrants’ media literacy practice. The authors argued that the current one-size-fits-all media literacy methods designed for Western, industrialized, educated, and democratic societies fail to account for the different socio-economic demographics. Thus, making media to be media literate demonstrates the urgency of situated, flexible, reflexive, cultural, and context-awareness among the young migrants.

Another researcher Dezuanni (2018) looked at children’s use of digital media making games such as Minecraft. The author elaborates how focusing on kids’ participation in digital making platform heightens their media literacy on four nodes: digital materials, media production, conceptual understanding, and media analysis that otherwise cannot be achieved by humanist and socio-economic accounts only.

Strengthening similar arguments but employing slightly different methods, scholars O’Leary and Renga (2020) used videographic criticism, audio-visual analysis of audio-visual media in the form of video-essays while teaching Italian film and Television Studies. Videographic criticism has categories such as Supercut, Mashup, Videographic analysis, Video lecture, Thesis video, Adaptation and Personal documentary. But the distinctions are often muddy, and they frequently overlap. In their case study, the scholars designed an experimental syllabus that analyzes the affordances of the videographic mode as critical scholarship. Students created videographic criticism as class assignments. The study explored one central question, how the traditional traits of text-based academic rhetoric are incorporated and restructured into an independent audio-visual container?

Although not posing media production as media research, author such as Mayer (2016) also asked for a more integrated approach in media studies. The researcher argued that including production research in the realm of audience research would reveal the politics and power relations involved in media production. Through a case study, the author examined the discourses of the fans and extras for the television series *Treme* (2010–2013) about the place of viewing and media making. The findings suggested that a common culture exists despite the material hierarchical obstacles between audiences and production persons. Such scholarships echo the need for a broader field-based understanding of media making in media studies.

Film and media studies scholar Christopher Robé (2014) explains how media production is central in digital social movements, and not just the representation of digital media activism. He suggests that media production is not the end result of a movement,

but the mere act of media making leads to the coalition and collective action. According to him, video production itself is an act of material action, and the tactics of activists are also manifested in the forms and contents of the video.

Researchers Lowgren and Reimer (2013), in their book on ‘collaborative media,’ shed light on the phenomena of “prosumption” (production and consumption) and “produsage” (production and usage). Audiences now not only consume media but also participate in media creation (involved in design, production and consumption) through social media platforms such as Facebook, Twitter, and Flickr. Yesterday’s audience has turned into producers today. The authors termed the phenomena ‘collaborative media’ and investigated the characteristics and qualities of it. Social media sites lowered the once high walls between the centralized media-making system and consumers while providing them with the tools of communication, participation, and ultimately collaborative media making. Thus, impacting social change, reshaping media institutions, and generating communality, collaborative media transformed how the scholars and policymakers conceptualized design, production, and consumption. The authors illustrated how collaborative media had spurred partnership and action-oriented empowerment among digital media users by providing examples from multiple case studies. In the three parts (Starting Point, Interventions, Insights and Conclusions) and eight chapters the book elaborates, analyzes and critiques collaborative media.

The book begins by charting the history of collaborative media before the internet era and takes parodies, machinima, mashups, and DIY (do it yourself) into account and illustrates how these practices have cut across the established media structure and its institutions. The initial chapter defines the limitations of “new media” (because it’s not

so new anymore) and “social media” (because it leaves out other forms of association) and why they used the term collaborative media. Ultimately, the authors claim that collaborative media research requires collaboration from the researchers’ part as well. Collaboration entails teamwork not just with academicians but also with involved and informed citizens. However, the authors caution future researchers about the overheads involved. The book concludes by pointing out that the culture of collaborative media is anything but predefined. Hence there are constant struggles between what it should ‘be’ or ‘do.’ Academics play a crucial role in identifying the key players, incorporating intervention, analyzing, and criticizing these struggles.

My dissertation resonates with the above scholars. Interested in collaborative production and analyzing media in that same light, this work brings the tacit realities of media making to the foreground. The film, *Musical Mangrove* is made in alliance with the community partners where they are credited as crew members.

### ***Field to Media as a Method***

My research and film complement the ecocritical perspective of the current ecocinema scholars who often miss the role of complex and collaborative film making. It is also imperative to note that most of the ecocinema scholarship is focused almost exclusively on Euro-American films, with some transnational work on Chinese cinema to slightly expand the canon. South Asian films have been largely ignored by scholars. While bringing a case study from India and Bangladesh, I will be in conversation with the western environmental communication scholars as well. My case study and methods will be elaborated in the final chapter of this dissertation.

## Summary

This chapter summarizes the current canon of ecocinema studies, traces its roots and its relationship with ecocriticism. While acknowledging the critical role ecocinema studies plays in bringing ecological understanding to cinema, I point out that it also limits the scope of community participation and avoids the complexities associated with the collaborative nature of film and media making. Ecocriticism uses macro and micro lenses to evaluate how the environment is presented and/or omitted in films and studies how race, class and gender play a role in environmental films.

Using the same macro and micro lenses I analyzed *Parched* (2015), an Indian environmental film to demonstrate the how they inform the ecological understanding of films. However, it still does not account for the collective nature of filmmaking. Thus, I highlight the need for a more community engaged method. The need resonates with the media anthropologists (Deger, 2013) (Harris, 2018) who have been engaged in field-based media studies. Thus, I demonstrated the need to move beyond the existing tools and embraces novel approaches.

### **Ecocinema and/as Environmental Communication**

Ecocinema, being heavily dependent on ecocriticism, has mostly existed outside the realm of environmental communication. Although both ecocriticism and environmental communication seek to analyze how mediated domains, such as literature and journalism, portray nature, they have existed as parallel disciplines for decades without many intersections or interdisciplinary dialogues (Slovic et al., 2019). Recently, scholars such as Slovic, Rangarajan, and Sarveswaran (2019), have tried to bridge the gap. They argue that ecocriticism has emphasized popular culture and high art, specifically focusing on the activist, ethical and aesthetic dimensions, whereas environmental communication, on the other hand, has been more pragmatic. But the fascination with human interactions and discourses and the belief that improving communication sways societies towards more mindful ecological practices remained the core of both fields.

One of the earliest attempts to integrate both fields was made by Killingsworth and Palmer (1991). The scholars aimed to bring the academics and practitioners together to analyze the models of discourse practices and improve them. Their call resonated with scholars in the environmental humanities during the first wave of ecocriticism.

Unfortunately, despite the early attempts at consilience, environmental communication and ecocriticism have operated in separate realms during the past two decades, perhaps because of increasing professionalism and precision in both the fields (Slovic et al., 2019). Scholars such as Keitaro Morita have attempted to bring ecocinema studies to the canvas of environmental communication by arguing that ecomedia (including environmental writing, environmental TV, films, and ecocinema) has the capacity to

inspire political and personal actions (Moitra, 2019). However, Moitra's ecocinema is circumscribed by ecocritical readings, hence limiting the scope of participation. By building on his argument, I present "*Musical Mangrove*," a case-study based ecocinema (as elaborated in the previous chapter), as an applied and pragmatic way of studying environmental communication.

This chapter builds on the few existing interdisciplinary conversations and establishes ecocinema as a form of environmental communication. By defining the field of environmental communication, its urgency and need in an era of Anthropocene, this chapter notes the lack of attention to cinema in environmental communication. It uses a production-oriented, case study based ecocinema to demonstrate how it could contribute to the field and presents *Musical Mangrove* to illustrate the values of participatory media in the study of environmental communication. In doing so, the following sections highlight the lack of ecocinematic intervention in environmental communication, the limitation of mainstream media in bringing native stories, and elaborate on how case study based ecocinema informs the field.

### **Environmental Communication and Limitations**

Although the academic study of environmental communication gained momentum during the past few decades, the practice of communicating about the environment started with early humans. The existence of non-verbal visual environmental communication can be traced far back to the cave painting of early humans, where nature appeared as a part of their daily lives. Small band societies' religions and lifeways were intricately connected to the living world and thus their communication represents far greater reference to biodiversity and what most contemporary societies describe as "nature." The

contemporary description of “nature” is incomplete and myopic as it relies on the bifurcation of nature and civilization and treats civilization as an entity outside nature but not as something that is nurtured by nature (Morton, 2009). Eventually, as agrarian societies became more prevalent, humans started attempting to harness nature’s forces, and deforestation, desertification, flood became by-products of civilizations. In an attempt to utilize natural resources, ancient civilizations such as Mesopotamia, Maya and Indus Valley destroyed the very ecosystems they depended on and disappeared (Diamond, 2005; Shabecoff, 1996).

The need to preserve ecological balance became evident to societies. In one of the earliest and rarest attempts, Edward I of England banned coal burning during the Parliament session in 1306 (Spengler, & Wilson, 1996). However, the trend did not persist, and industrialization brought its own challenges. The modern study of environmental communication in North America stems from Rachel Carson’s *Silent Spring* (1962). Her book informed the world about the atrocities of Dichlorodiphenyltrichloroethane (DDT). Eventually, DDT was either banned (in countries such as Australia, Norway, Switzerland, and the USA) or severely restricted (in countries such as India, Israel, and Kenya). In 1984, Methyl Isocyanate leaked from Union Carbide India Limited in Bhopal and killed thousands (claimed 16000) of innocents. The nuclear accident at Chernobyl spewed radiation around the world in 1986. The need to communicate about the carnages of modern industrial civilization became increasingly evident. And since the environment cannot speak for itself, the contemporary study of environmental communication was born as a field of academic research.

Scholars have defined environmental communication with different focus points during the last few decades. According to the International Environmental Communication Association (IECA), the leading group of environmental communicators, environmental communication is all about communicating ecological affairs. It includes the diverse forms of mediated, organizational, group, and interpersonal communication that create social debate about environmental issues and the human relationship with nature. Cox and Pezzullo wrote in their textbook, *Environmental Communication and the Public Sphere*, environmental communication “as the pragmatic and constitutive modes of expression – the naming, shaping, orienting and negotiating – of our ecological relationships in the world, including those with non-human systems, elements, and species (2015, p.13).” Flor (2004), on the other hand, looked at the synergy between nature and culture. His book provides insight into the traditional understanding of nature and how culture complements the human knowledge of nature. Such renditions shed critical light on indigenous and non-human knowledge holders’ role and how they embed this knowledge into their daily practices. Since several scholars provide multiple access points to the field, environmental communication branches to various dimensions and shares close ties with fields such as cultural studies, health communication, rural communication, science communication and makes the field relevant to risk management, environmental planning, environmental science, and many other fields, professions, and disciplines (Lie & Servaes, 2015).

According to Cox and Pezzullo (2016), environmental communication scholarship can be accurately broken down into seven study areas. The first one is the constitutive nature of communication that looks at how language and/or images create

and shape our perception of the environment (Marafiotte, 2008; Peeples, 2013). The second field of study looks at how environmental decision making is influenced by public participation (Beierle, & Cayford, 2002; Martin, 2007). Conflict resolutions and environmental collaborations are the third concentration that deals with community engagement in resolving environmental conflict (Walker, 2004; Depoe, Delicath, & Elsenbeer, 2004). The fourth area deals with journalism and media (including print, electronics, and new media) approach towards environmental issues (Lin, 2018; Bolsen, & Shapiro, 2018; Feldpausch-Parker et al., 2013). How popular culture and advertising portrays nature is the fifth area of study (Matthes, 2019; Wodak, 2018). The sixth research area is about advocacy campaigns and how messages are created to inform people about climate change and environmental issues (Liang, Henderson, & Kee, 2018; Schlichting, 2013). And the last area involves science and risk communication to unpack how the environmental threats can be successfully communicated to move people (Covi, & Kain, 2016; Davis, Fährlich, Nepote, Riedlinger, & Trench, 2018).

As demonstrated above, different branches of environmental communication deal with different practices, but disciplinary and methodological limitations still exist. For example, the dominant approaches in environmental communication look at “the top-down dissemination model which uses mainstream media or strategic communication to disseminate messages from policymakers, scientists and other interest groups to the wider population (Harris, 2018, p. 10).” The model deals more with the message dissemination from the prominent sources and less with the method of content creation. Another set of researchers analyze climate change communication. They concentrate on media framing regarding how specific issues are highlighted, and some are omitted from the mainstream

media (Boykoff, 2007; Boykoff, 2007; Farbotko, 2005). Climate science has been an intensely contested area. Given the competition between industry, government, and non-profits to persuade in adopting a policy that reflects their perspective (Anderson, 2009), there have been considerable doubts among the mass. Researchers have also looked into how years of lobbying of the fossil fuel industries have contributed to this state of confusion (Rampton & Stauber, 2002). On a similar but methodologically different note, a set of quantitative climate communication researchers study people's perception of climate change and related measures. For example, according to the April 2020 report (a survey of 1,029 registered voters in the USA) of the Yale Program on Climate Change Communication, 25% of the American population do not believe in global warming. Among those who believe in its existence, 39% believe that global warming is not caused by human activities ("Beliefs & Attitudes Archives," 2020.). While such qualitative studies inform on the dissemination of media content and qualitative studies inform on the mass perception of environmental beliefs and attitude, there has been little focus on how different communication channels, such as cinema, impact public perception and the process of creating media messages. In short, the current emphasis of environmental communication scholars on peoples' opinions, media content, and top-down dissemination model curb the scopes by omitting the process of content creation, aka media production.

To tackle the immediacy and severity of environmental threats, environmental communication needs to move beyond the existing methods and embrace new and creative approaches to engage with communities and be involved in the process of content creation. In line with Harris's (2018) critique of the top-down model, Anderson

(2015) talks about the need to move beyond the knowledge-deficit model. Scholars such as (Brulle, 2010) call attention to the assumption that lack of knowledge is the reason for ineffective engagement is faulty and club such approaches under a deficit model. Scholar such as Taube et al., (2021) and Anderson (2015) argue that the idea of only providing people with more accurate information would be enough is an inadequate approach. In an effort to solely educated citizens, facts are assumed to be a magic bullet that informs and persuades everyone in the same manner and intensity (Nisbet & Scheufele, 2009). For example, there has been audience research to identify the like-minded audience who would react in similar ways and tailor messages to intervene (Maibach et al., 2011), or on what level social influence works in terms of pro-environmental behaviors (Abrahamse & Steg, 2013). However, there has been little effort from the scientific communities, government officials, and non-profits to remedy the lack of action even when the communities are well informed. Involving the communities remains a challenge. A media-centric approach dedicated to examining media representation inevitably provides skewed results and omits community voices says Anderson (2009). Hence, she proposes a more directly engaged, community-based approach to environmental communication, which facilitates dialogue with the different knowledge holders to recognize and value differences in perspectives and goals.

In an attempt to find new avenues, (Hansen, 2015) calls for an approach to studying the different elements of media content, such as production, content, and audiences. Focusing on audience and content, environmental communication also sheds light on the cultural implications of environmental messages. Analyzing the circuit of culture can help understand the broader impacts of media on environmental issues. The

framework allows one to look beyond the aesthetics of media and consider the fact that culture is always fluid, and to study it; one needs to focus on its elements: regulation, production, consumption, representation, identity, and their relationship with each other (Pezzullo, 2011). As shared culture evolves and adapts, the environmental messages need to be adaptive. Therefore, it also becomes crucial to ask how environmental communication can bridge the nature-culture divide in the era of Anthropocene. Such questions strengthen the need to involve community stakeholders in shared content creation and learn about the synergy between nature and culture.

In other words, environmental communication scholars shed critical light on various aspects of ecological understanding as it relates to human communication. However, as demonstrated above, community-based studies of ecocinema do not play a central role in it. To bring ecocinema in environmental communication, one needs to chart the new paradigms of ecocriticism and the practical applications of environmental communication. By questioning the definitions and disciplinary boundaries, this chapter offers new methodological approaches to the discourse. For example, scholars such as Rust, Monani, & Cubitt (2012) study environmental cinema through the lenses of ecocriticism. While ecocinema provides valuable insight into the role screens play in depicting nature and how nature is portrayed on screens, it lacks the applied aspects of environmental communication. By omitting the field-based experiences of filmmaking and the complex multi-layered collaborative nature of film productions, ecocinema lacks the applied properties of environmental communication. *Field to Media*, a production-based method that studies cinema through productions, builds on the theoretical realm of ecocinema and turns a critical eye towards the production of environmental films through

community-engaged participant observation. But before moving to discuss the need for community-engaged media in ecocinema studies and how it informs environmental communication, I would like to demonstrate why we need environmental communication.

### **Why Do We Need Environmental Communication?**

With climate change and the accelerating numbers of natural disasters, environmental communication as a field of research becomes key in understanding the environment and communicating it (Cox, 2013). Although there have been debates on the most effective ways to communicate about nature, it is clear that mitigating climate change requires rapid actions from individuals, communities, and institutions (Goldberg et al., 2020). Persuading these different entities to adapt to pro-environmental behavior and bringing them together to incur material and policy changes remains hard to achieve. Our societies have been bogged down by long-standing socio-environmental challenges such as pollution, deforestation, desertification, and erratic weather patterns. International policies to counter these challenges depend on transnational politics and remain indecisive. Conference of the Parties (COP) negotiations and efforts such as “agenda 2030 and the Sustainable Development Goals (SDGs) – are characterized by complexity, uncertainty, disputed facts, conflicting values, high stakes, and a pressing need to act (Joosse et al., 2020, p. 758).” The gravity of environmental threats makes the need to have better communication tools and strategies evident. Environmental Communication plays a central role in disentangling these pre-existing disciplinary knots and providing applied solutions.

Environmental communication is not only instrumental in bringing pragmatic solutions; it is also important to remember that the omnipresence of media, especially in the post-COVID19 world. We are largely consuming nature through screens, and our experience of the world is highly mediated. From the early days of newspapers to radio and television, humans have been informed about the issues of nature through media. However, the traditional media did not dominate our daily lives as much as it has done since the digital boom. Screens such as televisions, computers, mobiles, tablets and now even smart watches are gradually becoming the sole sources of entertainment and information. Environmental discourses have followed the same path. According to a 2019 survey, Americans spend nearly half of their waking hours looking at screens (*Survey*, 2019); urban crowds from other parts of the world are not significantly different. Hence it becomes crucial to study the nature of the content we consume via various media and/or screens. The role of environmental communication in studying, critiquing, and analyzing the mediated content is as critical as finding paths to improve these messages. And the need resonates among the community of scholars. For example, the title and theme of the International Environmental Communication Association's (IECA) 16th Conference on Communication and Environment (COCE) 2021 conference is Re-MEDIATING the Wild. The theme intends to focus on the research and practical experience on how to communicate wildlife and wild places via screens. The conference also aims to address how communication and culture influence human values towards the wild and perceive their relationships with the rest of non-human world.

Building on these immediate needs to study the environment and its role in media and pointing out the lack of attention towards community-engaged media-production, I

studied environmental communication through and with audio-visual media, aka *Musical Mangrove*. The film allows me to gain a unique insight into the realm of environmental film production through case studies from the Sundarbans, the world's largest mangrove forest, shared by India and Bangladesh. While informing the embodied choices of a filmmaker in creating ecocinema, the film also brings the value of community-based knowledge creation and native culture to the center stage.

### **Bringing Together Environmental Communication and Ecocinema: Introducing *Musical Mangrove***

Although environmental communication successfully analyzes environmental messages from various mass media channels, there are scopes for more field-based case studies. As the exiting scholarship of environmental communication concentrates on the mainstream media messages and how it frames and disseminates information, the marginalized voices, and alternative viewpoints are omitted. For example, research suggests that traditional media has paid more attention to the less radical pro-environment adaptations than those that contest the business-as-usual, as in advocating for a drastic reduction in greenhouse gases by replacing carbon economy (Boykoff, 2007). While media play a crucial role in shaping public perception of environmental issues surrounding them and framing the overarching problems such as climate change, the straight forward relationship between campaigns and behavioral adaptations has been contested and indecisive (Dunwoody, 2007). Hence scholars such as Anderson (2015) draw attention to the limitations of a media-centric approach and advocate for a method that sheds light on the broader cultural politics of environmental problems. She claimed that “ethnographic

case studies that trace the evolution of an issue from production to representation, to consumption produce a much more rounded and useful analysis which is more likely to capture the complexity and contingencies of social processes and the wider play of political power (Anderson, 2015, p. 2).” Bolstering the same claim, Hansen strongly advocated for an integrated approach to study – productions, contents, and audiences – three cores of communication research (Hansen, 2015). Hansen’s (2015) work also reflects how the power of communication is deeply unequally distributed and how the dependency on economic, political, and cultural power limits access to communication about the environment. For example, the forces of neoliberalism hardly allows the stories of underprivileged, who are often the most vulnerable to climate atrocities, to be told because they might not be lucrative. Harris (2018) proposes the use of participatory media to bring in voices from the marginalized communities. Building on scholars such as Anderson (2015), Hansen (2015), and Harris (2018), I made “*Musical Mangrove*” in part as a positive model for the field of environmental communication by bringing in ethnographic participatory media production and integrating community-based knowledge production. As the term participatory media entails, the documentary film was made with the help of local, non-technical entities. The case-study based production process involved dialogue, mutual problem-solving, and collaboration. *Musical Mangrove* acts as an intervention by disrupting the centers of media production in the otherwise media-centric study of environmental communication. The ethnographic co-production of the film broadens the scope of participation of the marginalized through their cultural practices. A full explanation of the *Field to Media* methodology is provided in the next chapter, but the following sections introduces the film and fieldwork.

The emergence of media conglomerates has precluded traditional knowledge holders from participating. Community-based cultural practices, such as song and dance forms, oral storytelling, visual storytelling, folklore, theater, and traditional musical ritual have been replaced or suppressed by the emergence of electronic, globalized media (Harris, 2018). With the printing press and mass circulations of newspapers in the 19<sup>th</sup> century and later the radio and television in the 20<sup>th</sup> century; the production and distribution of knowledge became urban-centered, and thus fewer people, institutions, and larger political economic structures had the power over what needs to be told and how it should be communicated. Thus, overlooking local communication and performance, the centralized mass media cater to a national audience and prioritize national and international interest stories. The power lied in the hands of a handful of media corporations. Scholar of media imperialism (Tomlinson, 2002) have talked about how large production houses such as Disney act as a tool of American capitalist propaganda and cultural imperialism (Dorfman & Mattelart, 1975). Appadurai's on the other hands, points out how mediascape is globalized and its element (the characters, plots and forms) cater to the desire of material acquisition (Appadurai, 1990). With minimal and stipulated scope for public engagement, in terms of letters to the editors or phone calls to the TV anchor, people became alienated from the process of knowledge creation and distribution. In the race to grab the attention of the powerful, political, and economic elites dominated the narrative while omitting the voices from the margins (Harris, 2018). The stories which were passed from generation to generation lacked representation and came on the verge of extinction. Therefore, it becomes critical to bring the community stakeholders to create a dialogue to foster shared learning.

The 21st-century digital boom made social media seemingly liberating, but one's capability to access and participate in a meaningful way remained circumscribed by their digital literacy, access to technology, language skills, and the dominant social, political, cultural, and economic environment (Fuchs, 2010). The digital divide has successfully circumscribed these scopes (van Dijk, 2005). The Sundarbans is no such exception. Although an internet connection is sporadically available in the region, there is little to no digital literacy and awareness of how it could be used to bolster their movement. For example, the young adult offspring of my informant Arjun Mondal in the Sundarbans had smartphones. However, their usage is limited to Facebook, WhatsApp, and sometimes YouTube for solely entertainment purposes. Communication about their immediate environmental threats and socio-economic condition plays no role in their internet-mediated communications. In a nutshell, apart from serving as a tool to satisfy the basic communication needs, the internet plays no part in environmental communication in and among the forest dwellers. A field-based participatory media making allows them to talk about the pressing issues that surround them. Ecocinema fosters a critical conversation about the problems and the steps that need to be taken to solve them. It provides a platform for the communities to share their knowledge, spread awareness, and provide their own insight and perspective.

I would like to bring the fundamental question here, what is the purpose of environmental communication? If environmental communication “is the deliberate exchange of environmental information, knowledge, and even wisdom” (Flor, 2004, p.4)” then the question arises, what is the most effective way to do so? There is no one correct answer to that question. Nonetheless, scholars argue that some methods are more

effective than others. For example, Harris (2018) argues that an exchange of knowledge is more appealing and engaging than information transmission. Exchange of knowledge entails personal accounts of events and lived experiences of the natives. People are moved by personal stories (Gustafson et al., 2020). Stories allow for a conversation. And free flow of ideas can build a capacity for identifying short- and long-term environmental threats. Cinema allows these stories to transmit beyond the boundaries of time and space. As I have observed, these stories from the forests are seldom written or recorded in any shape or form. It is through stories; indigenous communities have retained ecological knowledge and maintained a harmonious relationship with nature. It is stories that make us invest in a cause. But without the tools to create a recorded narrative, these stories are lost. Production-based ecocinema has the capacity to chronicle these stories and disseminate them. The advent of cheap and accessible communication technologies has shaped how these stories are shared in urban platforms, but the constant human need to tell stories has remained unchanged. While the mainstream media allow little room for the native stories, ethnographic and participatory media enable marginalized voices to be heard. Harris (2018) says the following:

“Working in both mainstream and community media settings, I have come to understand how proactive use of media can disrupt power relations and become a social and political force for marginalized groups. By working outside the established norms and networks, community producers create alternative dialogic spaces for self-expression. (p. 7)

*Musical Mangrove* did the same for the communities living in the Indian forests of the Sundarbans who rarely make it to India's national narrative. Environmental communication stands for the need to learn from diverse knowledge holders; the documentary brings these knowledge holders' voices, the voices of grief, the voices of inequity, the voices of the deprived, and the voices of the vulnerable. However, it would be unfair and inaccurate to call the film voices of the natives. In addition to bringing indigenous voices to the forefront, *Musical Mangrove* also showcases the urban intellectuals from Bangladesh (Dhaka and Narayanganj) who are voicing their concern about unsustainable governmental plans. Some of these young adult activists have never been to the forest but are committed to the cause.

Gustafson et al. (2020) rightly point out that personal stories are crucial when it comes to the emotional connection of the content with their audience. My documentary brings these personal narratives of people such as Arjun Mondal, who spent his entire life in the islands fighting the injustice and ultimately gives his life to prove his point. The film is his story, but it is my story as well. My journey through the forest with an intent to create a musical video first and then a documentary film and then ultimately encountering his untimely death and finally finishing the film a year after his death taught me more about the regions than any book ever could. Furthermore, the film, with its five songs also tells the stories of the forest, its people, its perils and the how the lives of the lyricists are intertwined with the forest. The film remains a form of media research while serving as an audio-visual record of the Sundarbans' environmental movement.

**Case in Point: Environmental Communication in Song and Visually Translated  
Musical Experience in *Musical Mangrove***

In the following sections, I will tease out examples from my case study from India and Bangladesh to elaborate how songs and visually translated musical experiences enrich environmental communication. In the Indian part of the forest, the native and indigenous groups fight against mushrooming ecotourism businesses and the pollution they bring to the mangrove. In Bangladesh, the researchers and urban intellectuals are protesting the country's largest coal-burning power plant in the fringe of the forest. Both groups are resorting to music to tell their stories, not just the personal ones, but larger political and socio-environmental narratives as well. Since the indigenous communities are among the poorest in the country, their music is also a means of earning a livelihood. The native Indian artists perform for tourists the ecotourism industry brings while condemning their very presence. Hence, their music is curated for the audience. The same groups perform for awareness campaigns and entertainment purposes. The songs differ accordingly but what remains the same is the description of the Sundarbans in their lyrics. For example, one lyric that highlights the native dialects and also acts as a local source of entertainment says:

“Sundarban Sundarban

Our Sundarban

The Sundari trees

Fill your newfound Youth.”

As with folk music, the song derives authenticity from closeness to nature (Ingram, 2010). These songs are seldom/never recorded. The artists have probably never been inside a recording studio. The native music relies on unamplified live performances that romanticize the mangrove and their agrarian society. Lack of technological mediation makes their music earthy (Størvold, 2018). Another song, not included in the film but a part of the HWW episodes/documentary written for the environmental awareness campaigns, says:

“Let us all come and plant trees

Plants give us oxygen

Which keeps us alive

And keeps the world environment in balance.”

The song is usually performed during the events on World Environment days and other awareness programs on soil, air, water, noise pollution, and deforestation. Although the activists’ socio-economic background from Bangladesh and India are different, their underlying theme is strikingly similar. For example, Farhad Syed, a graduate student, composed Syed Sakhawat’s lyric, not a part of “*Musical Mangrove*,” says the following:

“The rays of sun streaming on your eyes and face, your mane inaccessible to touch

Mine defeated finger broiling in rage

So shall the rays comply with igniting on apprehension

Meanwhile, the autumn leaves cascading in the woods,

Where the graceful Irrawaddy River outflows

There existent the whimsical Sundarban,

That embraces the pastures, penumbra, and hues cheerfully.”

The native song from India and the contemporary composition by Syed are talking about the forest’s beauty. Both the pieces compare the mangrove with a young and attractive woman whose beauty is ornated by the Sundarbans’ flora and fauna. Although this composition does not adhere to the region’s folk melodies, the protest song from Bangladesh, “*Dwellers of the forest Arise*,” follow the tunes of traditional folklore songs. The instruments used in the performance are associated with Bengali folk music. Despite being exposed to modern recording technologies, unlike the Indian native artists, the Bangladeshi groups prefer to stick to the Bengali folk culture. Geertz (1973) highlighted the need to move beyond the comprehensive theories of human behavior and emphasized more on an analytical approach that showcases the totality of a situation. Thus, I adhered to his idea of a Thick Description in describing my experiences and observations analytically.

### **Conclusion**

In offering a documentary film as an alternative form of media research, I acknowledge the limitations of talking-head documentary films (Sarkar & Walker, 2009) and I keep the talking head sections in the film to the minimum. However, studies suggest that integrating filmmaking in environmental education (such as climate science curriculum) increases youth engagement (Walsh & Cordero, 2019). Similarly, another study indicates

that bringing socioenvironmental and climate change discourse into a film education program helps students to think clearly in terms of actions that can be implemented in daily lives to mitigate the adversities of climate change (Tayne et al., 2020). Cinema, a predominantly visual medium, have long been discussed as a tool that successfully affects science, policy, and social interactions when it comes to environmental communication (van Beek et al., 2020); an interaction which is need of the hour. With its visual and aural properties, *Musical Mangrove* becomes a vehicle to transport the forest, its people, their stories, and their music to audiences worldwide. Even though films are a predominantly visual medium, the music, the soul of the environmental movement, plays a crucial role in unifying the key players. Music as a tool for environmental movements has existed in very different parts of the world, ranging from the western hemisphere (Pedelty, 2016) to the global south (Pedelty et al., 2020). Like the musical responses to the Kárahnjúkar Hydropower Plant in Iceland (Størvold, 2018), the film illuminates how music registers and reacts to environmental debates at stylistic and aesthetic levels. The musical performances in the film are recorded in India and Bangladesh. Although the limitations of documentary films exist, cinema being an audio-visual medium allows for the music and story to be integrated seamlessly into the narrative and spurs socio-environmental dialogues.

Going back to the question, what is the purpose of environmental communication and how field based ecocinema can enrich environmental communication? I teased out examples from “*Musical Mangrove*,” and bring ecocinema as a tool of environmental communication. In doing so, I no way argue that the film is the most effective mode of communicating the environment of the forest; neither do I claim that the film has

succeded in achieving all its goals already. However, I would like to pose the film as a complementary element to studying ecocinema. As the current scholars focus on the ecocritical reading of cinema, I used community-based video production to study environmental films. “*Musical Mangrove*,” from its core, plays a pragmatic role in communicating environmental issues. It not only brings the native knowledge to the table, which has hardly been recorded, but also creates a platform for the Bangladeshi artists to voice their concerns. Instead of mediating their stories from a researcher’s point of view, which written scholarships predominantly do, the documentary makes them speak for themselves. It acts as a deliberate exchange of ideas, knowledge, and wisdom about the environment and the long and short terms threats to the world’s largest mangrove forest. In doing so, I identified questions to ask in regard to environmental films/filmmaking, but also understood the challenges, choices and embodied the experience of making such films. The methodological 4<sup>th</sup> chapter of this dissertation elaborates on such decisions and questions.

To summarize, despite sharing common roots, ecocinema and environmental communication have largely operated in different domains. This chapter poses a community based, production-oriented, case-study of ecocinema as an example to bring *Field to Media*, methodology to the integrate the both the fields. *Field to Media* not only allows for an interdisciplinary dialogue between ecocriticism and environmental communication but also values diversity inclusivity and garners agency in the vulnerable communities in building resilience.

The next and final written chapter is dedicated to defining *Field to Media* as a method and its scopes and limitation. I would request the readers to watch *Musical Mangrove* before moving to the next written chapter.

Link to *Musical Mangrove*: [https://youtu.be/ui4Uits\\_3KY](https://youtu.be/ui4Uits_3KY)

Chapter: 3

***Musical Mangrove:*** [https://youtu.be/ui4Uits 3KY](https://youtu.be/ui4Uits3KY)

### **Field to Media Methodology in the Sundarbans**

This chapter is dedicated to elaborating the method of my research aka, *Field to Media*. There is a reason why a method chapter is the final section of my dissertation. It is imperative for the readers to watch the film and understand the theoretical premise to understand why a field-based study is different from textual analysis and what they reveal. This chapter details the lived experiences I have had during my fieldwork and during post-production. In his ground breaking essay, “Thick Description: Toward an Interpretive Theory of Culture,” (Geertz, 1973) talked about methodologies that do not search for universal truth but bring in the nuances of culture by focusing on how people look at and experience life. Through thick description, I try to illustrate the challenges and choices that filmmakers face in media productions that might otherwise not be accounted for in current ecocritical analyses of films. The descriptions elaborate on how ecocinema can broaden the scope of community participation. With examples from India and Bangladesh, I elaborate on how ecocinema can reach beyond national borders to deal with global problems like climate change.

Subsequently, I describe the geographical and historical contexts of my site, the Sundarbans, and shed light on why the region and its problems are unique and hard to solve. The musical and artistic movements, their courses, and the key players are charted in the final sections of this chapter.

## Who am I as a researcher?

I learned about the Sundarbans as a student in West Bengal in a very scientific manner. The sections in my textbooks were not about the human stories but the ecological ones. Later during my masters, it was through journalistic assignments and transboundary projects, I learned that it is not just a swamp of trees, but also the home of 7.2 million people. Since then, through the macro and micro lenses, I navigate through the forests like a novice finding his way, sometimes encountering thick and thin descriptions (Cyrenne, 2006). As a media ethnographer and practitioner, my job was to observe with the cameras, and other recording devices, but also with my own five senses. However, my work as a researcher does not end there; it makes me interpret as well as present the voices, the stories that I am entrusted to tell. In her interview, 'On the Ethnography of Media Production,' Georgina Born recommended that the ethnographers enter into a situation which they know little about and try to have an open mind (Szczepanik, 2013), the principle stands true to my entire ethnographic filming experience. Though I had worked in and around the issues encircling the forest, the Humanities Without Walls (HWW) collaboration exposed me to its music and the musical movement that has emerged in both India and Bangladesh.

As with most ethnographic filming projects, "*Musical Mangrove*" is retrospective in nature; I was recording interviews, and performances in both the countries without having a clear idea of what shape the film would ultimately take (Strathern, 1995). The journey has been a learning curve sometimes steep, sometimes a flattened one. As I mentioned in the previous chapters, the ethnographic filmmaking experience is central to my intervention in the field of ecocinema studies and broadly to environmental

communication. Having delved deeper into the theories of ecocinema and its position in the realm of environmental communication, this methodology section provides context to my argument that, a film is a collaborative process, and analyzing only the film removes the complex and multilayered contributions of the several people attached to the production (including pre-production and post-production processes). Scholars such as Noy (2017) and Saville-Troike (2008) have long argued for participatory research in the discipline of communication studies. “With the prevalence of both analogue and digital mediated forms of communication, interactivity, and discourse, participation becomes key to how we understand anew pertinent concepts such as culture, identity performances, and community (Noy, 2017, p. 280).” Hence after careful analyzing and theorizing of ecocinema, I decided to engage in fieldwork to experiment with the *Filed to Media* methodology, and I do so to provide context for the film and, in turn, present in print the insights that I drew from the film-as-fieldwork research.

## **Method**

### **Part One: Sundarbans (summer 2018)**

I first learned about the Sundarbans in my high school geography books when I was probably in fifth or sixth grade (class V or VI). Though the forest was only 130 kilometers away from my home, I had a distant relationship with it because I had never seen the mangrove. It was during my master’s, I started working for the non-profit Environment Governed Integrated Organisation (EnGIO), led by my MA professor Jayanta Basu and was exposed to the forest firsthand.

Later, when professor Pedelty proposed the HWW Grant Initiative to me, the mangroves popped up in my head. I immediately knew what I wanted to work on. I wanted to tell the story of the world's largest mangrove forest, the Sundarbans, its people, and its perils. After receiving the Melon Foundation's HWW grant in December 2017, I got in touch with Professor Basu and my old colleagues, mostly Indian and Bangladeshi non-profit workers. However, HWW collaboration dealt with environmental music, which was not aligned with the work EnGIO or I did. After a few futile attempts to find musicians working in India and Bangladesh, I resorted to the one who has answers to every question, Google. A quick search took me to the People's Archive of Rural India's (PARI, 2018) website. The website achieves rural Indian culture, including visual and performing arts, languages that are not promoted by the Indian Constitution (8<sup>th</sup> schedule), literature, occasions, transportations and similar cultural traditions. In hindsight, it was the most valuable source I stumbled upon. There was one video from the Sundarbans in the archive. A video of performers dancing to a native song performed by *Tiblighiri Adivasi Tushu Sampraday* attached to a short description. It was written and uploaded by Urvashi Sarkar (2019). I got in touch with her in April 2018, and she replied to me after 2-3 weeks and said she had lost the contact details of the organizers. I replied and waited for another week or so; then, she got back to me with the contact details of Mr. Arjun Mondal, a fisherman by profession but also an environmentalist and activist. He was also the president of the Sundarbans Rural Welfare Society.

I called him on the morning of May 19<sup>th</sup>, 2018 and had a long conversation with him about my work and the kind of performances I was looking for. My identity as a Bengali helped me to have a productive conversation. This dialogue started a long

journey of collaboration, which continues with this widow and his son and daughter long after his untimely demise.

Arjun *Da* (*Da* is a common way to address older males in Bengali, for women is *Di*) was delighted to cooperate, and he welcomed me and my videographer, Ishanu Chakrabarty, to stay at his place. He insisted that we must shoot before monsoon hits the Sundarbans coasts because I wanted to have an open-air recording. An indoor recording would require at least three different light sources. Given the sporadic nature of electricity in the region, planning for an indoor shoot would have been unwise. I was scheduled to arrive in Kolkata, India, on June 8th, 2018. So, we agreed upon the earliest available dates (9<sup>th</sup> and 10<sup>th</sup> June 2018), which was a weekend.

As a part of larger international collaborative projects involving multiple stakeholders, my previous visits to the forest were always in groups, and they were either on private vehicles or luxurious cruises. Being a part of opulence while visiting the ‘have nots’ had made me uncomfortable in the past. As I was on my own (only my videographer accompanied me), I decided to take the public transportations used by the villagers and stay at Arjun *Da*’s house. To spare the painstaking details of the journey, the summary would suffice. It took three ferries, two trains, five vans (a standard mode of public transportation in the region), and 7 hours to arrive from my home in the Suburbs of Kolkata. Even if the village Rajat Jubilee is around 95 kilometers from the city of Kolkata, it takes the villagers 7 hours to reach their closest tie to civilization (read resources). The Sundarban region is one of the most underdeveloped regions of West Bengal in terms of communication facilities and transport. The navigable rivers Gosaba River and Dayapur River and creeks form the principal means of communication in the

Sundarban for long, which is recognized as the most dangerous means of communication. The mud roads almost become impassable during the rainy season. This hindrance is magnified manifold, especially for women during pregnancy period and other emergencies (Vadrevu & Kanjilal, 2016, p. 1). That is the reason many villagers prefer to visit the local temporary clinics because getting to the sub-center hospitals means crossing a long path. Thus, people of Sundarbans continue to take chances with their life and health. And that is one of the pretexts of why the lives in these villages are stressful.

Arjun *Da* lived with his wife, Pushpa, and two young adult offspring, Rahul and Priyanka, both of whom were named after the former Indian Prime Minister Rahul Gandhi's (1984-1989) offspring. His house was one of the two brick houses in the locality. There were two other concrete buildings, one was the Rajat Jubilee High School, and the other one was a cyclone shelter belonging to the Government of West Bengal. After the initial greetings, we recorded our first interview with Arjun *Da*; he talked about their lack of voice in the administrative decisions, the lack of livelihood opportunities and the government's ignorance on the matter. He also shed light on how the booming ecotourism does more harm than good in the region. Ironically, he talked at length about the plights of the tiger widows, women who lost their husband in tiger attacks. Arjun *Da* lost his life on a tiger attack while catching crabs on June 29th, 2019.

His interview was recorded on the lawn of his house. Once the sunlight dimmed and we could no longer shoot, he took us to see the rehearsals of the next day's performances and introduced me to Mr. Subhendu Joddhha, locally known as *Mashtermoshai* (which is a common way to address teachers in Bengali), one of the singer-songwriters of the groups that were scheduled to perform the next morning. Later

that evening, with the setting sun Arjun Da, Ishanu, and I discussed the logistics of the shoot. We planned to shoot the performances in his lawn, where we already shot his interview, with a lush green background of plants, ponds, and agricultural lands. Keeping the directions of the rising sun in mind, we made a mental sketch of how to arrange the dancers, singers, and the audio-video recording equipment.

The performers were scheduled to arrive at 6 am on Sunday, and we were supposed to finish recording by 10 am. I had checked the weather on ever-reliable Google, which seldom fails to predict in the cities. Since in June after 11 am, the sun becomes too bright for shooting, and the heat makes the performers uncomfortable, we wanted to wrap up before 11 am. With the excitement and anticipation, I failed to sleep well (I am sure jet lag played its role too). Tomorrow was a big day, and I could not afford to wake up late.

Nature had some different plans for us. It was all dark when I woke up at around 5.30 (the sun usually rises at five during this time of the year). It was raining heavily. All our plans were falling apart. The same weather applications I used earlier showed that the rain would only get severe with time. Plus, it would rain all day till midnight. We had no other option but to seek alternative locations.

Along with Arjun Da, I went out and looked for alternative indoor locations. There was an empty hall in the nearby Rajat Jubilee High School; however, the room did not have electricity. 3-point lighting where the talents are illuminated from left, right and back, was almost impossible to achieve. We looked for battery generated lights, but the community had only one. We also had to get permission from the school authority for the shooting. It was a Sunday; the school was closed. Arjun *Da* went to meet the headmaster

(principal) for permission, and I could only wait. By this time, the performers had started gathering; they started dressing up and putting their make-up on.

At around 9 am, the rain became less intense and just to be on the safe side, and for the sake of not returning empty-handed, we decided to start the performances under a canopy. It is needless to mention that we neither got the desired light nor the visuals. Nonetheless, that was the best we could get. Finally, the weather cooperated, and we got the desired light after 10 am. The most important lesson for me here was that no matter how well planned one is before shooting, there are always surprises. I also learned, in a hard way, that the weather apps are probably not the best resources when it comes to Indian tropical forests and remote locations.

Keeping the planning and visions alive is essential; however, it is equally important to be patient and have plans B and even C if one can afford to do so. We finally filmed in the scorching sun; the lighting was not desired; the performers were sweating, but they never lacked enthusiasm. Throughout the uncertainty, each performer (there were around 35 of them) stayed clam. They put on their make-up and continued their rehearsals. Given the weather predictions, I was panicking, but they were nonchalant. It could be their lived experiences of the fact that weather in the Sundarbans is never predictable or their sheer love for the art or both. Nevertheless, they helped me restore my faint in co-productions. Arjun *Da* being the master organizer, had arranged breakfasts and lunch for all the performers. While we shot, his wife, Pushpa *Di* cooked rice and chicken curry for all of us. Once the recording was over, we all sat on the lawn and had our food together.

Outdoor shootings, especially when it involves large groups, are never easy to execute as per plans. Moreover, while working on a small budget with a small crew (only me and my videographer), it always remains a challenge to cope up with nature's surprises. I learned that making environmental films are all about being patient. Nature does not follow a script or a storyboard, so it is better to be prepared for surprises beforehand. As Asch, Marshall, and Spier put it, we kept the unpredictability of scripted ethnographic films in mind and altered our visions while recording (Asch et al., 1973). We video-recorded 19 performances that day. Two of which are in *Musical Mangrove*, the rest are a part of a larger archival project I want to work on in the future.

## **Part Two: Bangladesh (summer 2018)**

While communicating with Urvashi Sarkar from PARI, I was also seeking contacts of artists from Bangladesh. I knew through a Mongabay article that artist-activists were protesting a proposed powerplant in the Sundarbans. The 2014 article, written by Minnesota based environmental journalist, Jeremy Hance, was my first gateway to Bangladesh. I got in touch with Jeremy, and he quickly put me in touch with Mowdud Rahman, who is an activist himself. He directed me to Bithi Ghosh, one of the founding members of *Samageet*, the most famous activist performing group in Bangladesh. After the initial email exchanges, like with Arjun *Da*, I continued my conversations in Bengali (the national language of Bangladesh).

Once the shoot in the Sundarbans was over, I made more rigorous attempts to visit Bangladesh. My initial plan was to either cover Indian Sundarbans or Bangladesh. Yet, after finishing video recording in the forests, I still had money and time to work in Bangladesh. Unlike the native performers of the Sundarbans in India, in Bangladesh, the

performers were urban intellectuals. The performers were mostly students, ex-students, and faculties of the University of Dhaka, the oldest university in Bangladesh. After the partition of India and Pakistan, the University of Dhaka became the focal point of Bengali Nationalism and played a crucial role in the independence of Bangladesh in 1971. Though I was in touch with the Bangladeshi artists before I left the US, it was the time of Ramadan so, my conversation with them did not progress much.

Additionally, as the 2018 Bangladeshi general elections were due in December, political protests were not easy to organize. After months of discussions with Bithi *Di* and Amal Akash, the president of *Samageet*, we finally got their dates. On June 21st, 2018, they asked us to visit on the weekend of July 6th. Since Ishanu and I are Indian citizens, we required a visa to enter the country. Although Indian citizens do not need to pay for Bangladeshi visas, the two concerning countries are not famous for corruption-free administrative processing. After multiple attempts at legally submitting visas applications, due to lack of time, I gave in and handed over my and Ishanu's passports to a complete stranger outside the Deputy High Commission of Bangladesh, Kolkata, who promised to give us the visa stamps within three days for merely \$25 each. The official processing time was seven business days. The man ran a visa application help center, which helped with the filling up the application forms and printing documents right next to the embassy. His shop consisted of a laptop, two stools, and a young fellow in his early 20s.

I was desperate, I did not have time, and Ishanu did not want his friend to take the risk alone. We gave our passports to the broker, and he promised us that the stamps would be authentic, and this is how he makes a living. He also showed us a stack for 10+

Indian passport and Bangladeshi visas on them to gain our trust. After the two sleepless nights, I met him at the same location and got our passports back with Bangladeshi visas stamped in Tripura, a northeastern Indian state. We hopped on our flight on the 6<sup>th</sup> and prayed that the immigration officer would not ask us why we got our stamps from Tripura while living in the state of West Bengal. The corruption ran deep, and no one asked us anything.

On the same evening, we met Amal *Da*, Bithi *Di*, Rebeka Neela, another eminent member of Samageet, and a few other performers. We met at the University of Dhaka premises and discussed the plans for the next day. That was when I learned the length and breadth of the musical and artistic movement that took place in Bangladesh to protest the proposed Rampal Power plant in the fringe of the forest. The protests started in 2010 as soon as the plant was announced and continued for years. The researchers, journalists, visual and performing artists protested and performed on the streets and public places in the capital city of Bangladesh, Dhaka, and in other cities such as Narayanganj. Two-thirds of the Sundarbans belong to Bangladesh, and one third belongs to India. Given the size of the country and location of the forest (far from the capital city of Delhi), the mangrove never makes it to the national news stories in India; even the stories of the forest hardly reach the capital of West Bengal, Kolkata. However, the scenario was different in Bangladesh. The Sundarbans stretches most parts of the southern coasts of Bangladesh. So, the dense mangrove saves them from not only tropical cyclones and floods but also soil erosion. The proposed Rampal Power Plant immediately threatens the forests and wildlife, but in the long run, it threatens the very existence of the country (Mookerjea & Misra, 2017). Hence the movement was a part of their national narrative. I

also learned about the history of the country's artistic protests, which began with villagers of Fulbari protesting a coal mine in 2014.

During the same meeting, we also discussed the logistics of shooting. The original plan was to organize a musical protest at *Rajpath* (one of the most prime locations of Dhaka). However, they were unable to organize it. As the 2018 Bangladeshi General Election was to be held between October to December, there were more strict rules on open protests in the city. Keeping the restriction in mind, we decided to record at multiple convenient locations.

The next day we arrived in Narayanganj, where the office of Samageet is situated on the rooftop of a dilapidated multistoried building. The office moved to a new location in 2019. The building has been torn down because of its run-down condition. Amal *Da* and Bithi *Di* had asked all their performers (more than 20) to arrive in the morning along with senior poet, singer, songwriter, and singer Kafil Ahmed. We interviewed him first, and then the group presented their most-performed song, '*Dwellers of the Forest Arise*,' aka '*Go Back Get Out India*.' The proposed power plant is a joint venture of the Bangladesh Power Development Board and India's state-owned National Thermal Power Corporation (NTPC). To imply that India should step back, the lyrics used the phrase '*Go Back Get Out India*' multiple times. My identity as an Indian initially created a little discomfort among them, but after some initial conversations, the sense of discomfort was gone.

The group always performs in the street protests, so they did not want a stage-like performance where the camera remains static. They moved, danced and so did we. We walked, crouched, and moved along with the performers. Ishanu used a DSLR to capture

the close-ups of individual performers and instruments, and I used a GoPro to get wide-angle footage, which captures the overall mood. We became a part of the performance. Although I was the producer and director, *Samageet* was the guiding body. Instead of directing them according to our convenience, we approached it the other way around, and in retrospect, it became the most valued possession of the ‘*Dwellers of the Forest Arise*’ video. Once we shot the song, we shot a group discussion among the members about the movement and the importance of environmental movements. After a sumptuous Biriyani (the most royal food in the region) lunch, we recorded another song about the Sundarbans which they staged as a rehearsal.

The next destination was the National Press Club, Dhaka, where we interviewed writer-economist and the most prominent face of the Sundarbans movement Anu Muhammad. He elaborated on why the proposed, country’s largest power plant will crumble the forest. By this time, we had lost daylight but still had more performers to meet. We decided to go ahead and shoot with whatever lights we have. The performers and artists were waiting for us in Charukola, the Faculty of Fine Art, University of Dhaka. There were both visual and performing artists such as Samata Sharmen, and Syed Farhad. The long day finally ended with recording their interview and performance.

The next morning, we again met at the University of Dhaka and recorded three more songs, one was by *Mabhoi*, a father-son duo that performs on environmental issues. The other two were by a group named *Bhatiyal Sohure*.

Once all shooting schedules were over, I realized the peril of my situation. HWW required only one song, and here I was with twenty-five songs, nineteen from the Sundarbans, and six from Bangladesh, not to mention the several interviews. I realized

there was no way to tell the story I had, in one musical video. The story was much larger than the scope of HWW. I knew I had to go back.

### **Part Three: Sundarbans (summer 2019)**

Upon arriving in the USA, I met with Professor Pedelty and talked to him about the possibilities of going back and shooting the forest to finally make a documentary film as a part of my dissertation. He happily agreed. I applied for the International Thesis Research Travel Grant and went back. I had been in constant dialogue with my collaborators from both the countries about the travel. I arrived in Kolkata, and on the same day, Arjun Da died of a tiger attack. He was hunting crabs in the forest and lost his life. The accident was something that I am still grappling to cope with.

This time I traveled without Ishanu because of clashing dates and had to cancel my Bangladesh visit because of the last-minute changes. My videographer was Koyel Mitra. I had most of the performances, but what I lacked was footages of the forest that can demonstrate the story. I wanted to capture the forest, so we traveled like tourists and booked the West Bengal government's lodge and their ferry rides. Though the rides are designed for tiger watching, the possibilities of seeing one are not likely. The guides were very keen on showing us the Royal Bengal Tiger, but knowing the tragedies of human-tiger conflict, I was not so eager to see them. There are multiple watch towers throughout the Sundarbans National Park, India, but the crowd of tourists pushes the wildlife away from these places to the deeper jungle. However, the days long stay helped me to gather the footages I needed to tell a comprehensive story of the movement. During this visit, we also recorded some interviews where the locals talked about how pollution impacts

the forests and the booming ecotourism business harm flora and fauna. The next step was editing.

#### **Part Four: Post-production**

The post-production of a documentary where one has hundreds of hours of footage is a tricky business. For the sake of brevity and precision, Professor Pedelty and I decided to limit the length of the documentary film to 30 minutes. I worked on narrowing down the performances, which are diverse and the interviews, which could tell the most wide-ranging story. The task was, at times, painful because I had to let go of great performances and interviews. A lot of the performances and interviews I mentioned in the previous sections are not a part of *Musical Mangrove*. Nevertheless, those are also stories worth telling. I intend to create a video archive of them as my future project. Budgets always remain a constraint in such projects, especially when they are led by graduate students; however, I was lucky enough to secure some extra funding to work with the HWW collaborator and editor Karl Demer for the final post-production which included sound mixing and subtitling. Subtitling remained a delicate business as *Dwellers of the Forest* was edited by Karl and remained a part of *Musical Mangrove*, matching the format required his presence. Besides, translations are notorious for information and emotion loss; I tried more to keep the essence and intentions of the interviewees intact than focusing on meticulous word to word translation. Since Karl does not know the language, it was a great experience to see the film through his eyes, and having a foreign point of view about the technicalities of spoken language versus written translations.

Working on post-production also inevitably gears the filmmakers towards imagining their audiences. I was no exception. I was making *Musical Mangrove*, as a part

of my doctoral dissertation. So, I had to keep the western academic audiences in my mind. As a filmmaker who also wears the hat of a media researcher, I imagined academic conferences as a viewing place. Since scholarship-based grants funded my project, I also had to keep the potential scholarly contributions of my film in mind. Thus, the film was prefigured in a way that it can communicate to western academics. There are two instances in the film where I narrate some of the critical points of the Sundarbans movement which my collaborator and/or interviewees did not flesh out. Keeping the diversity of my audiences and their lack of understanding of Bengali (the primary language of *Musical Mangrove*); I did my narration in English. I put a lot of effort and attention into the subtitles as well, for that matter. However, the goal of any film is successful communication. In that sense, the editing process did not interfere much with the thought of reaching its audiences. Nevertheless, my primary goal has always been to convey the story of my collaborators with utmost honesty and compassion. I was entrusted to tell the stories of people who barely knew me. Thus, despite the prefiguring of funding agencies and my doctoral requirements, I kept the intend of my collaborators above all other needs and made sure their stories are appropriately presented.

### ***Filed to Media: The Methodological Intervention***

While *Field to Media* is informed by Freirian educational philosophy (2000) of dialogues, it has connections to visual anthropology and performance studies as well. As an example of the latter, Schechner (2003) introduced the idea of quadrilogue. Whereas dialogue traditionally accounts for two individuals, quadrillogical relationships involve various players and their shared rapport. Schechner categorized the players as performers,

partakers, sources, and producers. The performers by definition are the ones on stage; partakers witness the event, often the anthropologists fall in this category; sources are the ones involved in training the performers for camera and research; and finally, producers create the environment and act as the link between the performers and the sources. However, the status of these players is fluid and is not preconfigured normatively. In the case of *Musical Mangrove*, both the idea of quadrilogical relationships and the fluid nature of the category proved instrumental.

We engaged in quadrilogue which created a separate space for all the parties involved, for example, the artists (both visual and performing in this case) acted as performers, the viewers who came to enjoy the performances became the partakers (as music can bring people together, there were always some audiences, gathered to enjoy the live performances), the academics and the journalists acted as the sources, and the organizers became producers. According to Schechner (2003), connections between these players can be of equal weightage, but the hierarchy and dominance between these relationships reveal the underlying currents of the performances. *Musical Mangrove* both adheres to and problematizes the idea. For example, in the Sundarbans, Arjun *Da* acted as the producer and became the link between me (the source) and the performers; but in Bangladesh, Bithi *Di* and Amal *Da* were both producers and the performers. The interconnection and the primacy between all of them were also interchangeable. While the collaborators switched roles, I was also wearing different hats at different times, during the shoot in the Sundarbans, I had enough helping hands (for example, Arjun *Da*'s son, Rahul did the audio recording) to act like the director calling shots, however, in Bangladesh, I was the videographer. Since people wore different hats at different points,

with the shifting roles, the power dynamics of the production shifted accordingly.

As the director of the film, also a co-videographer and co-audio recordist, I was the one who could take the final calls in terms of the shooting. However, all the decisions were taken after free exchange of ideas and fair amount of discussions with the organizers. For example, in the Sundarbans, on the day of shooting, Arjun *Da* and the other performers decided to start their performance before the rain stopped. They performed under a canopy, the sound of rain interfered with the audio, the light was anything but ideal, but I followed their lead and went ahead with the shoot, partially to make sure I do not come back empty-handed, but more so to be a team player and boost their enthusiasm. Like Peter Biells' (2009) participants, my collaborator also brought in their expertise to work of *Musical Mangrove*.

Premising on the Freirian (2000) approach that the researchers must learn from the sequential exposure to the world they themselves aim to change, I do not claim to be an expert of the region, I am still learning, and I will continue to learn, perhaps beyond the scope of my dissertation. To echo Koch (Koch, 2019), *Field to Media* is not an “I” or “eye” of the researchers observing the “other,” “but a web of activities between structures and agencies that entangle a wide variety of imaginations and practices (Koch, 2019, p.165).”

The two schools of the developmental field of applied visual anthropology – participatory films and observational films shed direct light on the work of *Musical Mangrove*. The filming experience strengthens the claims of Grimshaw and Ravetz (2009), that observational cinema engages less with truth claiming but more so with the intersubjective dynamics of the filmmakers, their subjects (in this case collaborators), and

the audiences.

Whereas ‘documentary observation’ focuses on ‘factual’ representation of the reality rather than ‘ethnofiction,’ ‘participatory cinema’ underlines the transcultural collaboration in filmmaking (Koch, 2019). ‘Participatory cinema’ does not only account for films as a method of data collection but also considers it as a tool for development and social change. In contrast with the traditional mode of ethnographic data collection, which only aims to document culture, visual anthropology historically uses ethnographic films to inculcate behavioral changes and, in the long-run social change. *Field to Media* takes a step forward and uses video production to study and amplify musical responses to environmental challenges such as climate change, sea-level rise, deforestation, and pollution in the era of Anthropocene (Pedelty et al., 2020).

Human activities have alerted the earth’s geologic, atmospheric, biospheric, hydrologic, and all other natural systems and now rivals the forces of nature (Steffen et al., 2011). Hence the earth’s most recent geologic era is termed as Anthropocene. The term Anthropocene was popularized by Nobel Laureate and atmospheric chemist Paul Crutzen (2002). He claimed that the impact of human activities increased radioactive and chemical gases and particles, which have become discernible on earth. However, the term gained momentum during the last decade (Steffen et al., 2011), when the ubiquitous nature of human imprint became a scientific consensus. Amid the anthropogenic climate change shifting the world, the global south and the small islands become the most vulnerable zones of the world (Chowdhury et al., 2016). With climate change, rising sea level, and unprecedented extreme weather events, studying the altering course of nature becomes crucial across all disciplines and methods. The era of the Anthropocene requires

the attention of academics across all disciplines to achieve an equitable, less exploitative, and sustainable socio-economic society. Communication scholars are no exceptions. However, the gap between academic knowledge and grassroots practices remains a challenge (Chowdhury et al., 2016). *Musical Mangrove* is one such effort to reduce that gap using *Field to Media* as a method.

Blending participant observation with participatory action research *Field to Media* from its very core intends to act as a pragmatic process. “*Field to Media* involves using video production to study and amplify ecomusical responses to climate change, pollution, deforestation, and other environmental challenges (Pedelty et al., 2020, p. 24).” The term ecomusical defines the musical practices that have emerged to engage with local environmental issues.

Unlike the most common documentary media production where the intent is to document, the videos generated by *Field to Media* intend to serve the community from the very first till the end. The highly engaged, production-oriented methodology not only allowed to gain insight about the community based musical culture but also to catalyze and mobilize the movement by providing audiovisual tools (Pedelty et al., 2020). Co-production in cross-cultural exchanges is neither novel nor above the commercial interests (Rangan, 2011) but is aspired by the researchers. To live up to those aspirations, *Field to Media* creates ‘intentional communities’ that gather around shared interest and allows for a defined and purposeful role for the community members. These intentional communities are not dissolved when a project ends, and the relationship continues beyond a single project and aims to bring material social change.

*Field to Media* recognizes that ethnographic filmmaking and ethnography as

space of production pose the danger of erasing or overlooking the complexities in order to search for a single unifying truth. To avoid such ethical and moral pitfalls, we derived from Freirean principles (Pedelty, 2017) of dialogue and Schechner's (2003) idea of quadrilogue to ensure more equitable and ethical participation from the community members. Building upon Freire's notion of dialogues, as opposed to the banking model of education, I tried also to eschew the tropes associated with presenting the global south for a western audience (Arora, 1994). My identity as a Bengali has provided me with deep cultural in-roads to the project. However, I was both a native and non-native ethnographer. I speak Bengali, the language spoken in the Indian forest of the Sundarbans, and in Dhaka, in both places, the dialects are different from mine, although. And so are the expectations, interactions and intentions. In the forests of West Bengal, I was often misread as an authoritative figure who has come from the United States and holds power to alleviate their situation by inculcating governmental and non-governmental policy changes. Although Arjun *Da* knew the nature of my research and intentions, all the performers were not as well informed. It is important to note that there were around 35 performers on the shoot day, and they had come to perform for someone who lives the United States of America, a country often associated with wealth and power. I had to conduct multiple discussions with the performers, especially the coordinators of each group, to make sure that they understand the nature and limitation of my work. The fact that I paid the performers upfront and provided lunch for them (the performers are often not offered the essential comfort in the region); did not help much in explaining my limitations either. Hence, I used the opportunity to have open communication during lunchtime when most of them were present to elaborate on what

the HWW project is, what my intentions are, who the audiences are, and the timeline of the project. Later, I conducted one on one meetings with the coordinators of each group, Rabindra Sardar (*Bhai Bon Sampradaya*), Rabindranath Meddha (*Adibashi Tusu Sampradaya*), and Subhendu Joddha to ensure an uninterrupted, free exchange of dialogues.

In Bangladesh, however, the situation was different in every sense. I was a non-native to begin with. The performers were the urban intellectuals, and most of them were academics or students who did not make a living out of performing arts. Hence the communication took a very different turn. My very first letter with them started with me explaining the nature of the HWW project. Gradually, I also talked to them about the four other researchers, Mark Pedelty, Rebecca Dirksen, Yan Peng, and Tara Hatfield and their respective sites. I also discussed the goals of the collaboration, such as five different musical videos, journal articles, documentary films, and future screenings at academic conferences and film festivals. What excited them the most was the possibility of screenings at film festivals, which I hope to be the future of the documentary.

During post-production, I faced the dilemma of a producer, director and editor juggling between what to put and what to leave to tell a coherent story. The question of authenticity and truth-making kept appearing in my mind throughout the process. As the director, and a videographer of *Musical Mangrove*, I was attached to some visuals, some songs, and the hard choice of finishing the film in 30 minutes made me take some tough choices. I was set up to tell the stories of a seven years long Sundarbans movement in Bangladesh and a lifelong struggle of the natives on the Indian part of the forest in a mere 30 minutes. Only the editing table made me realize how daunting the task was and still is.

While letting go of some dear images and performances, I was also dealing with the ethical considerations of editing. Editing in itself is an act of manipulation, where the interviews are cut short, and words are removed. My first intension behind choosing the parts of the interviews was to make sure they all tie together and tell a story that representants both nations, their key players, and performers. In a few cases, I had to get rid of some interviews because of technical reasons such as poor lighting and/or poor sound quality, which were beyond the scope of recovery. As someone who has been entrusted by people whom I met for the first time, to echo their stories, my second most crucial intension was to make sure that I do not misrepresent anything my collaborators said. I made sure that even if their words were curtailed, their intensions were communicated with the same rigor and essence. In some cases, the job was more comfortable because a few interviews were repetitive, so I picked one over the other depending on the precision of their messages and/or the visual and sonic appeal. At the end, it became a tribute to Arjun *Da*. My emotional investment in his death was too massive for me to look past that and treat the film objectively. The film became something different than what I was set out to direct.

While *Musical Mangrove* serves as the 3<sup>rd</sup> chapter of my dissertation, I would like to provide the historical and geographical context required to effectively understand (Duff, 2002) the film in the following sections.

## **Sundarbans: The Deep Contextual Backstory of the Musical Mangrove**

In describing the Sundarbans, Kafil Ahmed, one of the senior-most artist-activists of Bangladesh, said, “the Sundarbans is a country by itself. There is no India or Bangladesh of it.” The archipelago is also called *Bhatir Desh*. In Bengali, the regional language, *Bhati* means ebbtide and *Desh* means country so, *Bhatir Desh* is a country of ebbtide (Ghosh, 2005). As per the popular belief, the name Sundarbans came from the abundance of Sundari trees (*Heritiera fomes*) in the region. However, the literal meaning of Sundarbans is a beautiful forest because *sundari* means beautiful, and *ban* means forest in Bengali. In 1987, UNESCO declared it a world heritage site and in 1992, the islands were designated a Ramsar site. The mangrove is a cluster of small low-lying islands spanning about 6000km<sup>2</sup>, including both nations (Naha et al., 2016). The elevation of the forest is less than 5 meters (Sen, 2020). The forest is not only habitat of endangered species such as the Royal Bengal Tigers, crocodiles, Irrawaddy dolphins, and Ganges river dolphins but also it habitats nearly 7.2 million (4.5 in Indian Sundarbans and 2.7 in Bangladesh) people whose livelihood depend on natural resources (Danda et al., 2019). As (Uddin, 2019) puts it, the Hindus and the Muslims of the region considers the forest sacred because it provides them with everything they need for a sustainable life. In her book “Forest of Tigers,” (Jalais, 2011) argues that moving beyond the social markers of caste, creed or tribe, the islanders of Sundarbans articulate their social standing and relations by referencing to the non-human world – the forests and its horrifying protagonist, the man-eating tigers.



*Figure 1. The Geographical Location of Sundarbans. (Courtesy: Google Maps)*

There is a long history of myths and conflicting stories about how humans started living in the forests of Sundarbans. Because of the lack of archeological pieces of evidence due to severe storms and floods in the region, historians rely on ancient Indian epics, travelers' accounts and maps. The dense forests and complex physiography make it very difficult to conduct scientific research on the history of the region. Hence, there are contradictory views of different historians. Historians paint different pictures of human history in Sundarbans (Sarkar, 2010). The earliest mention of the province could be found in the Indian epic Mahabharata (Sarkar, 2010), but there are contradictory stories on the existence of ancient civilization in the Sundarbans. One school of scholarship (specifically western historians) believes that there was no civilization worth mentioning in the region before the British colonial era. They believe that even if there were human habitats, it was too scattered and sparse to be called a civilization, which could also be an indication that the population was migratory and used the land for agriculture seasonally

(Ghosh et al., 2015). On the other hand, Indian historians such as Satish Mitra and Kalidas Dutta paint a glorified picture of the archipelago with flourishing trade and commerce abroad via several ports (Bhattacharyya, 2011). According to the Chinese travelers' accounts between 1204 to 1575, the Sundarbans were sparsely settled with efforts to turn the forest into agricultural lands (Eaton, 1990). There are prominent theories of depopulation during the middle ages. The reasons behind depopulation range from earthquakes leading to subsidence of land, to repeated attacks of Arakans and Portuguese (Ghosh et al., 2015; Sarkar, 2012).

Sarkar (2010) echoes the theory about the existence of forest turned agricultural lands before the colonial era, and how subsidence and rampant attacks of pirates and robbers added to the decay of settlement. Lack of evidence (the existence of humanmade artifacts was inconclusive because floods or tidal forces could have displaced them from their place of origin) makes it difficult to pinpoint since when people started living in Sundarbans (Sarkar, 2010). Between the 17<sup>th</sup> and 19<sup>th</sup> centuries a *punthi* (books of religious accounts and poetic fairy tales) literature thrived in lower deltaic Bengal. The verses of *punthi* were devoted to the gods and goddesses of the Sundarbans. The literature reflected the then social and environmental surroundings and became accounts of the struggle between human and nature (Sarkar, 2017). Since these books were written before and during the early days of colonization, they are free from the bias of imperial settlement reports.

Nonetheless, the currently existing settlement in the islands started in the colonial era. In 1771, Clod Russell, British collector general, took the initiative to divide the forest of Sundarbans into plots and lease them for revenue collection. These lease-holding

landlords brought poor farming communities from the adjoining districts of Bengal, with the promise of land and work, as well as from the neighboring states for clearing the forest, and developing agricultural lands (Hunter, 1876). These people were mostly marginalized and tribal populations who later settled (Sarkar, 2012). The current population comprises of the descendants of these migrant farmers and the descendants of the central Indian people who were brought in by the British to construct the embankments (Danda, 2007). Embankments were built to keep the saltwater from entering the island to turn them into agricultural lands. Ironically, with climate change and sea-level rise, some of these islands are now below sea level. Hence whenever a cyclone or high tide brings saltwater into the islands, the water is trapped (Danda et al., 2019). The colonial effort in turning the forests into human habitats shrunk the forest (currently the Indian side of it) from 6588km<sup>2</sup> to 2307km<sup>2</sup> between 1776 to 1968 (Ghosh et al., 2015). Despite the existing body of research, Sundarbans remains a challenging place for the researchers firstly because its economic and geographical patterns require contemporary analysis which is free from the colonial biases, secondly because its popular culture is yet to be vigorously analyzed (Sarkar, 2017).

### **Current Settlements and Daniel Hamilton**

Sir Daniel Mackinnon Hamilton, a Scottish businessman, leased around 9000 acres at Gosaba, Rangabelia, Satjelia villages in Sundarbans in 1903. However, he was not a typical *zamindar* (estate holders) interested in only generating revenue. Hamilton was somewhat interested in social experimentation. He created model villages with the cooperative principle. With an objective of overall development, he brought laborers from the mainland (Danda, 2007). Eventually, he bought several other islands and

expanded his effort towards overall development. People from all the different religious and ethnic backgrounds were welcomed. Hamilton built embankments, desalinization plants and schools. To fund his ventures, he established the Central Bank of Gosaba and Gosaba currency (Das, 2018). The following was written on his currency:

Side 1:

“Sir Daniel Mackinnon Hamilton promises to pay the Bearer, on-demand, at the Co-operative Bhundar, in exchange for value received, one rupee worth of rice, cloth, oil or other goods.” (Das, 2018).

Side 2:

“The value received in exchange for this Note may be given in the form of bunds constructed, or buildings erected; or in medical or educational service. The Note may be exchanged for coin, if necessary, at the Estate Office. The Note is made good, not by the coin, which makes nothing, but by the assets created and the services rendered. The Note is based on the living man, not on the dead coin. It costs practically nothing and yields a dividend of One Hundred percent in land reclaimed, tanks excavated, houses built, etc. and in a more healthy and abundant LIFE.” (Das, 2018).

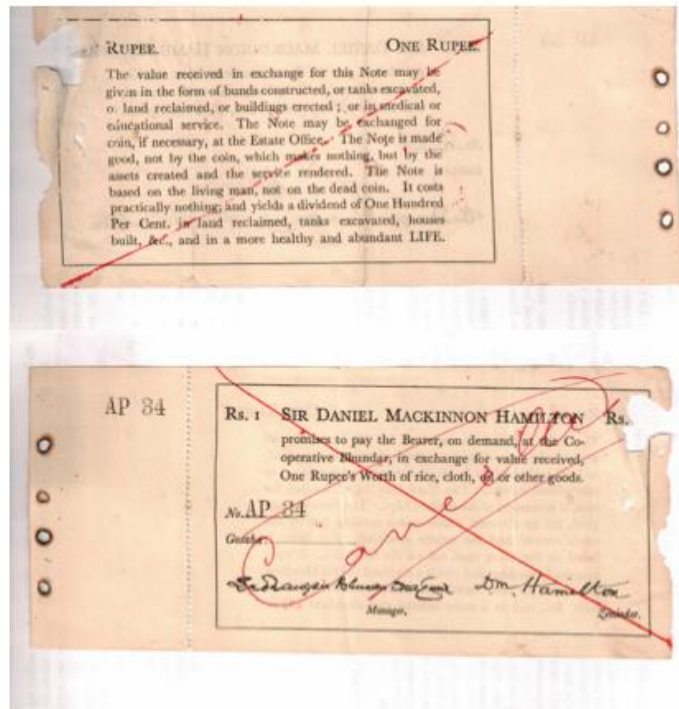


Figure 2, An image of Sir Daniel Hamilton's currency (Das, 2018).

Sir Hamilton died in 1939, and his dream of a harmonious, cooperative society was dismantled by the subsequent de-facto *zamindars* (Das, 2018). However, Hamilton remains a beloved, almost mythical figure in the region still now. As stated by Arjun *Da*, the people he brought with him are still the most genuine inhabitants of Sundarbans. Some locals believe that Hamilton brought settlers from China; however, there is little historical evidence to support that claim.

### **Current Issues**

The 1947 partition (India- Pakistan) separated the islands of Sundarbans when two-third of it became a part of East Pakistan (now Bangladesh), and one third remained a part of the Indian state of West Bengal. The partition, when Hindus from East Pakistan migrated to India, had an enormous impact on the population of Indian Sundarbans. According to the 2011 Census, the population grew from 1.1 million in 1951 to 4.5 million in 2011 (Ghosh et al., 2015). Including Bangladesh and India, around 7.2 million people live in the forests, of which around 2.7 million are in Bangladesh (Danda et al., 2019). In the Indian part of the forest, 34 percent of the population remains below the poverty line, 47 percent below some food shortage (Danda et al., 2019). These impoverished and marginalized populations, without access to the necessary amenities such as healthcare, education, transportation, sanitation, clean water and electricity, pose neither the capacity to independent adaptation nor to resist government inaction. The lack of sophisticated urban public platform makes these voices of the natives unheard. The situation aligns with what Pezzullo and Cox (2017) called indecorous voices, where the marginalized communities are unheard of by the policymakers. Currently, the archipelago is jointly administered by India and Bangladesh, which leads to a unique set of regulatory

pitfalls. The region is also regulated by different sets of international, national and regional wildlife and forest preservation acts which premise on the double edged sword of putting conservation above human life (Chowdhury, 2011).

The thick forest acts as a shield that safeguards densely populated cities like Dhaka and Kolkata from tropical cyclones and Tsunamis rising from the Bay of Bengal (Danda, 2007; Eaton, 1990). Usually, the mangroves are more resilient to cyclones and severe weather events than other tropical forests, Sundarbans takes around 25 years to recover, but human activities and climate change hinder the process (Islam, 2014). As climate change augments the frequency of cyclones, the recovery process slows down. Data suggest that in the Bay of Bengal, the number of cyclones increased by 26% from 1881 to 2001 (Singh, 2002).

A cyclone named Aila, with a wind speed of 110km/hr hit the coasts of Sundarbans on May 25th in 2009. The agricultural lands were flooded with saltwater; around 8000 people were registered missing; nearly a million people lost their homes in two countries (Ghosh et al., 2015; Rahman, 2017). During Alia, the cyclone shelters were inadequate and inaccessible (Mallick, 2011). In November 2019, the coasts were hit by Cyclone Bulbul, and in May 2020, Super Cyclone Amphan (equivalent to a category five hurricane), the fiercest storm of the century, slammed the mangroves (Choy, et al. 2020). Unfortunately, the people were still recovering from Alia when Amphan hit. There have been only three (first in the year 1582, and second in the year 1737) Super Cyclones hitting the Indian State of West Bengal in recorded history. Due to Amphan, 118 people lost their lives, including India and Bangladesh. In West Bengal itself, the cyclone caused

estimated damage of \$13.2 billion. More than 600 square miles of land were affected (Sen, 2020).

Though the perils continue, according to Subrata Vaidya, a local tour guide who works for the West Bengal Tourism Board, “some circumstances changed after 2009 when cyclone Aila devastated the communities which made scores of residential youth to venture out in the quest for jobs (S. Vaidya, personal communication August 7th, 2019).” It will take years to fathom the short and long term ramifications of Amphan fully. In Sundarbans, a significant number of populations, roughly 75% of the people, are involved in fishery activity, crab hunting, honey and wax procurement as their means of sustainability and livelihood. Agriculture is primarily prevalent during monsoon, and Sundarbans oddly produce monoculture (Kharif rice cultivation). Limited irrigation facilities, mono-cropping agriculture and salinity by both groundwater and surface water have hamstrung the lives of the villagers in Sundarban. If the tide surges, pushing the saline water over the embankment into the agricultural fields, then dangerous, devastating repercussions can be encountered. Generally, for 2-3 years, no cultivation can happen there (Sen, 2020). For example, there are sub-districts of Sagar and Namkhana, where villagers cannot support agriculture at all either because of brackish water inundation or loss of land because of erosion or submergence (Danda et al., 2019). As a result, there is a gradual community abandonment, where remaining population is unable to move even if they wish to, and become trapped population (Black & Collyer, 2014). The condition, in turn, makes the communities vulnerable to human trafficking (Molinari, 2017).

A series of new regulations and conservation policies are adopted by the government in an effort to curb human-animal conflict. For instance, no new license is

issued for new entrants. Since 2009, there are only 709 boats with license certificates to enter the Sundarbans Tiger Reserve in India. The number is ridiculously low, given the enormity of the population that depend on fishing. However, without an alternative, the fishermen are left with no choice but to enter the forests without valid permits (Ghosh, 2015). Most of the fishermen need to either pay a lump sum amount to rent these boats or venture illegally. Compensation and life insurance coverage from the state is paid for human casualty. The compensation, however, is provided only to those who are engaged in fishing as, according to the rules (with boat licensing certificates), no form of assistance is provided when the death occurs in the prohibited/protected buffer zone of Sundarbans (Ghosh, 2015). Given the steady growth of the population, the rivers close to the villages where humans live are overfished (Das et al., 2018). As the fish vanish from the rivers closer to the villages, the fishermen are forced to go deeper into the jungles where the tigers are most likely to attack (Naha et al., 2016).

With rising sea level, not only is the region losing its islands rapidly, but also the gradual encroachment of saltwater towards the northern sweet water sources are making access to drinking water scarcer and irrigation a challenge (Rahman, 2017). So, the people of Sundarbans resort to fishing and honey collection, even by risking their lives from man-eating tigers. Human-tiger conflict is a grave health issue that confronts while fishing and crab collection (Chowdhury et al., 2016). According to Arjun *Da*, “this seems to be evident as the villagers enter their territory, not the tigers, but the villagers are incapacitated as there lies no other way as it is their sole income source. Crabs and fish, available in the mudflats deeper in the forest, are the most lucrative choice for Sundarbans’ fishermen as fishes are disappearing fast from the river close to the village.

Thousands of fishermen feel compelled to go deeper into the narrow creeks in the forest. Another challenge while entering the forest is to hunt and locate the spot of the beehives. Of course, this necessitates the villagers to navigate deeper into the forest on foot. Moreover, invariably, the villagers become easy prey to the Royal Bengal Tigers (Mandal, personal communication June 8th, 2018).” Sundarbans has the highest magnitude of human-tiger conflict all over the world. Data suggests that every year an average of 22 people are killed by tiger attacks on Bangladeshi Sundarbans, and 36 people are killed in Indian Sundarbans where only 28.5% bodies are found (Naha et al., 2016). Human–crocodile conflict is also one of the most dangerous threats to the people of the region (Das & Jana, 2018). “In short, the Sundarbans have been and shall always remain synonymous with fear and anxiety (Sarkar, 2017).”

In the total area of Indian Sundarbans, there are estimated 3,000 women whose husbands have been killed by tigers, who require immediate and long-term relief. After the Forest Right Act (FRA, 2006), a comprehensive survey, in Lahiripur District and 22 other interconnected villages shows a total count of tiger widows have crossed 250 in numbers. The pressure to survive is tremendous for any family in Sundarban. Even so, it is several notches higher for tiger-widows, who also battles with post-traumatic stress and stigma (Chowdhury et al., 2016). These women are then the sole breadwinners of their family and have no means to earn and feed their children. The families receive no compensation or aid from the government. Moreover, local administrations have loopholes in the policies. But with no other job on offer, the villagers have little option than to carry on with one of the most dangerous professions in the world. Mukhopadhyay (2016) argues that marginality of the islanders and their vulnerability is induced not

merely by environmental disasters but by the scant attention being paid to problems people face in such a disaster-prone and flood vulnerable region.

The Sundarbans also attracts a large variety of tourists from over 192 countries. But harmful natural and anthropogenic impacts of ecotourism and overexploitation of natural resources are causing severe damage to the ecosystem. For example, the main ecotourism routes in the forest show high lead (Pb) pollution and the central forest shows high Cadmium (Cd) concentration (Chowdhury & Maiti, 2016). The locals are aggrieved with the lack of proper management and adverse effects of so-called 'ecotourism.' The Sundarbans forest hosts a large stock of biodiversity comprising of various species of flora and fauna. Around 110-120 various species of fauna are there. For example, riverine dolphins, estuarine crocodile, white fish, Vetki, Tiger prawn, etc. are among aquatic fauna. Improper garbage disposal, poor sanitation, noise and pollution from mechanized boats are deteriorating the environment. Mangrove ecosystems are susceptible to human use and the negative impacts of visitors can be extreme. These ecosystems are relatively unique and highly productive, which might be disturbed even with low anthropogenic activities.

Thermocols (Styrofoam), liquor bottles, plastics in the river are interfering in the mangrove's natural growth rate. Without proper training and awareness programs, the quality of the forest ecosystem deteriorates.

Sundarban is vulnerable to a variety of anthropogenic activities, including intensive boating and fishing operation of mechanized vessels, the disintegration of soil from riverbed and excavation are current threats to the ecosystem. The maintenance of embankments is degrading for the absence of a sufficient budget. The embankment is a

crucial part of inhabiting an island or a deltaic region as the islands are created by silting. The locals inhabiting coastal land are based at the limit of low water level and frequent flooding that induce shore erosion. In consequence, the silt that would have otherwise deposited on the island raising its height, are now deposited in the creeks, the other side- the forest, raising the level of the creek bed higher than the low lying areas; converting them into permanent marshes (Ghosh et al., 2015). As the situation aggravates, the villagers are left with no choice but to migrate, but many are unable to do so because they neither possess the social or financial asset required for migration. Cernea (2004) identified eight causes of climate-change-induced displacement, which are landlessness, joblessness (loss of income), homelessness, loss of access to common property and services, marginalization, increased morbidity and mortality, food insecurity, and social disarticulation. The natives are facing all the circumstances as representatives of 'Impoverishment Risks' (Cernea, 2004). The government has mostly abstained from active resettlement efforts, coastal embankment construction and restoration barring some exceptions (Danda et al., 2019). In 1990, the state of West Bengal implemented joint Forest Management (JFM), a method that incorporates community participation in forest conservation. But JFM proved to be futile in the region where the marginalized remained deprived and the politically and economically powerful received the benefits (Sen & Pattanaik, 2019).

Furthermore, the animals in the forest are also facing inconvenience with the upsurge in salinity in the water level that is claiming severe damage to the health of freshwater aquatic as well as terrestrial animals subsequently. According to the locals, the coarseness in the water in this area has put them in a state of constant discomfort as the

animals, like wild boar, spotted deer (*Axis axis*) are consuming too much saltwater resulting in serious health condition. Food shortage is also one of the major issues for the animals as the mutual interdependence is a must for human-animal survival. As villagers vastly depend on fishing, this practice, in a way, is seizing away their food. So remarkably, the animals are facing the fundamental challenge of food security. The two most evident anthropogenic threats to the forest are the lack of fresh water supply from the upstream attributed to the construction of embankments to divert water for irrigation and industrial wastewater pollution (Ghosh et al., 2015).

The transnational water bodies are also a path for the oil business, which makes it susceptible to major oil spills. An oil tanker filled with around 250 metric tons of furnace oil sank into the Shela River in the Sundarbans in December 2014. Neither the concerned organizations nor the government had a contingency plan. So, government officials and environmentalists failed to take action. Days after the spill, the locals started plunging oil with their bare hands without any training. Abdullah Harun Chowdhury, a Professor of Environmental Science at Khulna University, Bangladesh, led a research team around the region after the disaster. According to him, four years after the oil spill, the only progress is learning about the disaster and making sure that it never happens again (Sander & Husein, 2018).

To make the situation worse, the Bangladesh government has proposed the country's largest coal-burning power plant in the fringe of the Sundarbans. Bangladesh Power Development Board and India's state-owned National Thermal Power Corporation (NTPC) are jointly establishing the coal plant named Rampal Power Project. The plant's massive demand for water, almost 10,000 cubic meters every hour, can reduce the water

level of the nearby Passur River, which is crucial for maintaining sweet and saltwater balance in the region. Additionally, the carbon emission will disrupt the air and water quality of the ecosystem. Subsequently, the Bangladesh Department of Environment has permitted nearly 200 factories, including liquefied petroleum gas (LPG) plants, oil refineries, gas cylinder manufacturers, shipbuilding factories, sawmills, cigarette manufacturing plants, ice factories and an iron welding factory, in the critically endangered area (CED) around the Sundarbans (Roy, 2018). The India-Bangladesh joint power venture has been widely challenged by activists, civil society groups, non-governmental organizations, journalists, and artists. But that did not hinder the ongoing construction work, and the plant will likely start functioning in December 2018 (Pisharoty, 2018). Though the plant has not been functional as of May 2021, the construction work continues. *Musical Mangrove* tells the story of these artists, activists and encapsulates their musical performances.

### **The Musical Groups of the Sundarbans, West Bengal, India**

In the Indian part of Sundarbans, there were three groups of performers. The groups had both tribal and native artists with singers, musicians and dancers. Most of the dancers were housewives. These groups were not only created to keep the local music alive but also to create an alternative means of livelihood. There were around ten performers in each group. These people were concerned about their home, Sundarbans. They are very aware of the anthropogenic climate change and how that makes them one of the most vulnerable populations. Their aim is to create awareness among the locals as well as to influence short-sighted governmental policies that are harmful for their islands.

***Sundarban Adibashi Loko Sanskriti Sampradaya (Tribal Folk Cultural Community of the Sundarbans)***

The group was founded by Mr. Subhendu Joddhha, locally known as *Mashtermoshai* (a common way to address teachers in Bengali). Since the 1980s, he used to teach *Bratachari*, a form of physical education with songs to create national awareness (Devi, 1990; Mohanta, 2014), in various elementary and secondary schools in different villages of the Sundarbans. However, with time he became incapable of traveling far. Hence, to keep his love for music and physical activities alive, Mr. Joddhha started teaching the local children at his home. During the early 2014 and late 2013, the ecotourism business boomed in their Island. A need for local entertainment was created for the urban crowd that wanted to have a taste of rural music and dance. So, to keep up with the demand, more people joined Mr. Joddhha. This time, some housewives were looking for an alternative means of livelihood. The name *Sundarban Adibashi Loko Somproday* was also coined in early 2014. Mr. Joddhha writes, composes and sings their songs and the women dance to the beats. Since the group started performing for money, they do not have any children. Although they primarily sing folk songs, they have songs for creating environmental awareness. For example, he wrote and performed a song called “Let us all come and plant trees.” The first few sentences of his song states,

Let us all come and plant trees

Please come my near and dear ones

Let us all come and plant trees

Plants give us oxygen

Which keeps us alive

And keeps the world environment in balance

Plants give us oxygen

Which keeps us alive

And keeps the world environment in balance

The song is a call for action, asking the villagers to plant trees to save the environment while scientifically stating the benefits of trees and why deforestation threatens their ecology. However, the group cannot avoid the market needs. While keeping the activist agenda alive, the performers and Mr. Joddhha are not above the necessities of crowd pleasing. The evening I first met Mr. Joddhha, at the front yard of his home, he and his team were rehearsing. Among folk songs, there was a song that stated, “*Didi* is saving Bengal (West Bengal).” The current ruling party in West Bengal is TMC and the chief minister of the state is called *Didi* by her followers. The song did raise my eyebrows and then Arjun *Da* and Mr. Joddhha explained to me, in a little embarrassed tone, that politicians visit the forest for policy negotiation or pleasure, and they seek local entrapment. However, they also wish to hear how their party made positive impacts in the state and the region through the natives. Hence, to please politicians, the teams perform to similar songs as well. Since I wanted to refrain from learning their political alignments, I did not continue the conversation. Talking about political allegiances could take a very different turn depending on the region and its people. Mr. Joddhha was rehearsing a song to praise the current chief minister of West Bengal; if I pointed out the limitations of the ruling party, I risked their faith in my motives. No matter how I talk

about political ideologies, it could jeopardize my collaborators' trust in my work. For example, if I supported the current government, they would continue to perform in the ways they perform to please the local politicians. On the other hand, if I criticized the incumbent government, they could classify me as an opposition, thus, would abstain from an open conversation. Therefore, to gain the confidence of my performers and co-producers, I did not share my political beliefs or tried to learn their beliefs.

### ***Tiblighiri Adibashi Tusu Sampradaya* (Tribal Tusu Community)**

The musical group was formed after a 2011 environmental awareness meeting. Arjun Mandal, along with the Gram panchayat (village counselor) Tapan Mandal, and Kanailal Sarkar, representative of a local NGO (Tagore Society for Rural Development), took the initiative to revive the native language (dialect) and folk cultures. *Adibashi Tusu Sampradaya* performed for the first-time during Diwali of 2011 as a group. Since then, the group has performed to keep folk music and language alive. The group comprises of the descendants of tribal communities such as Munda, Santal, Ho and Oraon, who were brought by the British as indentured labors who cleared the forest and built embankments in the 19<sup>th</sup> century. After centuries, they now speak Bengali with some dialects. But they still use their songs and dances to preserve their long-forgotten languages such as Banua (Sarkar, 2016). Like many other Indian tribal languages, their language has no written scripture. The songs and some spoken dialects only survive it.

The boom of ecotourism and mushrooming resorts have created a typical stage for the performances. However, the pick tourist season is winter. Monsoon and summer are not the time for tourists, and it becomes difficult for the groups to survive in those seasons.

### ***Bhai Bon Sampradaya (Brother-Sister Community)***

This group was also formed during 2013-14. Initially, it was founded by Ms. Usha Sardar, Ms. Pushpa Sardar, Ms. Rina Sardar and Mr. Rabindra Sardar. These women were seeking a means to promote their culture and work opportunities. Mainly led by housewives, this group has around ten active members. Although the members who initially joined the group did not remain a part for various reasons, the group continues to perform whenever they get a call. “We had big dreams, but because of the lack of opportunities here and the geographical difficulties, we could not do much.” – said Usha Sardar. Since all the groups are from the same village, Rajat Jubilee, there are overlaps of performers. The musicians, singers and dancers frequently perform for other groups whenever there is a need to fill in the gaps of missing members.

As probably demonstrated through the sections above, the movement in the forest is not as much environmental as survival. Furthermore, this quality perhaps separates the Indian musical groups from the Bangladeshi ones.

## Sundarbans Movement in Bangladesh

As mentioned by Pedelty, “Movements have always been propelled by song (2016, p.

2).” The Sundarbans movement in Bangladesh is producing a rich body of songs. “There has been a surge of protest literature in recent years on the Sundarbans in Bangladesh. These new songs, poems and dramas will define the contemporary movement for future historians.” – said Syed Farhad, an

activist musician. Dhaka, the capital of Bangladesh, is witnessing the most

creative protests in the past seven years. There have been rallies with singers, composers, actors, sculptors, painters and so on in the city for the Sundarbans. The Rampal Power Plant has spurred anger not only from the mass but also ignited the minds of the artists all over the city. “The number of people actively involved with the Sundarbans movement may not be large, but the diversity is unique,” - said Rebeka Neela, an organizer of *Samageet*.

The names that pop up in the artistic environmental movements in Bangladesh are musical groups such as *Samageet*, *Bhatial Sohure*, *Mabhoi*, and some individuals such as Kafil Ahmed and Syed Farhad.



Figure 3, One of The Many Logos That Were Created for the Sundarbans Movement (Courtesy Rebecca Neela)

## **Dhaka University**

Dhaka University acts as a platform that provides space and voice for the activists. It also happens to be the standard connection between all artists activists I worked with. Most groups were created from the campus, and the camaraderie among the member of different groups is remarkable. Most of my prerecording meetings took place at the university campus. Three of the songs were also recorded in the campus premises.

### ***Samageet***

‘*Sama*’ means equal, and ‘*geet*’ means songs. *Samageet* is a group of activist singers and musicians. It has been around since 2010. Based at Narayanganj, the group specializes in Bengali folks and protest songs. There are more than 25 active members in the group with an age group ranging from 18 to 60. The group rarely performs for money, and their main goal is to create awareness about the ongoing jeopardies of political decisions. Most of the members are academicians, and/or students of Dhaka University. There are music majors, fine arts majors, sculpture majors, and literature majors, to name a few disciplines from where the members belong. With the spirit of skits, the group prefers performances in the open air. Their most performed song on Sundarbans is called, “*Go back, get out India.*” The song clearly describes how the proposed power plant will destroy the ecology of Sundarbans.

### ***Bhatiyal Sohure***

‘*Bhatiyal*’ is a form of songs prevalent in both Bangladesh and West Bengal. The term comes from the Bengali word ‘*bhati*,’ the ebbtide. As the name suggests, the songs are literally or metaphorically related to the river. Traditionally the ‘*bhatiyali*’ songs were

sung by the boatmen about rivers, boats and fishing. ‘*Sohure*’ means relating to the cities. Hence, the *Bhatiyal Sohure* is an urban band that specializes in and adapts from *bhatiyali* songs. The group comprises of a few students and ex-students of Dhaka university. Tuhin Kanti Das, the lead singer of the band finished his masters from Dhaka University in 2014 and is now preparing to join the M. Phil program. Ramanuj Chakrabarty (aka Opu) plays Cajón and Polas is the other vocalist. The group is still in its nascent stage. They performed for the first time as a band on January 20<sup>th</sup>, 2018. Mr. Das has written and composed a song on Sundarbans that asks the birds of the forests to leave and never come back because their home Sundarbans will be destroyed by the government (the last song of *Musical Mangrove*).

### ***Mabhoi***

Of all the musical groups, Mabhoi is probably the most unique one. It is a father-son duo that performs on environmental issues. An assistant professor, Musa Kalim Mukul, wrote a song for Sundarbans. To remind people about a dying river in Sundarbans, he named his son Turag which is an endangered river in the Ganges delta. Mr. Kalim’s song talks about the geographical location of Sundarbans and its importance in keeping people safe from the tropical cyclones.

### **Farhad Syed**

The social welfare MA student Farhad Syed identifies himself as an activist-singer-songwriter. He believes that humans are an extended form of nature, and when nature is in danger, humans cannot escape. Every artist gets his/her inspiration from nature; hence the perils of nature make the artists anxious like any other informed human

being. He composed Syed Sakhawat's song that compares the beauty of Sundarbans with a woman (not included in the film).

### **Kafil Ahmed**

Kafil Ahmed is the senior-most and prominent figure in musical activism in Bangladesh. He is a poet, singer and songwriter. His song *Gangaburi* on the river Buri Ganga is an unofficial anthem of the young musician activists. He believes, Sundarbans itself in a nation, and it cannot be divided onto different nations. "The nations are identifying Sundarbans as heritage... treasure ... but for us it is life..." – said the veteran activist artist.

### **Conclusion**

As demonstrated above through the thick description (Geertz, 1973), drawn from deep ethnographic engagement, the methodological section intends to cater to two central foci, both pertinent to the understanding of field based study of ecocinema. The first one being particularistic in describing the experience gathered in the forests of Sundarbans, the other one being generalizing as a method that can be adapted by media scholars. The deeper historical context and wider geographic scale of Sundarbans informed my cinematic ethnography and that, in turn, engaging with the place and matter via ethnographic film allowed me to bring new insight to the issue. While on one hand, the chapter deals with recognizing filmmaking in a specific cultural setting, on the other hand, it is "directed toward the formulation of concepts and theories upon which to build a global metatheory of human communication (Saville-Troike, 2008, p. 2)." Relying on the ethnography of communication, I resorted to the macroscopic perspective in trying to

study “the social, cultural, and historical contexts for communicative events, uncovering attitudes and patterns of communication (Duff, 2002, p. 293).” This chapter is dedicated to illustrating what the viewers need to know to effectively evaluate, analyze and consume *Musical Mangrove*. But it is also part and parcel of my ethnographic narrative and research. In describing my work, I recognize the subjectivity I bring in, while accepting the limitations of *Field to Media* methodology (Pedelty et al., 2020).

## Chapter: 5

### Conclusion

The written section of my dissertation *Art, Activism and Sundarbans: A case study of Musical Environmental Movement through Film*, evaluates and broadens the role of moving images in the realm of ecocinema studies and environmental communication. Scholars of ecocinema studies primarily complete textual analyses of individual films. They have analyzed fictional narratives, documentary films, and independent experimental films to understand how nature is represented, manipulated, or omitted in films (Rust et al., 2013). While this method sheds crucial light on the ways people consume nature through screens, ecocritical readings do not allow the complexities of the collaborative nature of filmmaking to surface. Thus, my doctoral research brings in a more directly engaged field-based study of ecocinema.

Through the different chapters, I highlight the opportunities and limitations of the current course of ecocinema studies. In doing so, I also acknowledge the need for scholars to move beyond *reading* films as similar to reading books or articles. Since filmmaking is a much more collaborative process than writing a book or an article, the field might need to think about adding more engaging methods to account for the collective nature of filmmaking. I pose my documentary film, *Musical Mangrove*, as an example of a more hands-on research method. The documentary film shows an artistic environmental movement that has emerged in India and Bangladesh to save the world's largest mangrove forest, Sundarbans.

While pointing out the need for ecocinema studies to engage in field-based methods, this dissertation also initiates a conversation between ecocriticism and

environmental communication. Both subfields exist on the shared core idea that improving human communication steers people towards more ecologically informed behavior. Nevertheless, there has been very little interdisciplinary conversation between the two. Sections of this dissertation chart the commonality between the two and open scopes for more integrated approaches. Finally, I position my documentary film, *Musical Mangrove*, as an example of a conversation between field-based ecocinema and environmental communication which has been seeking community engagement (Harris, 2018) for a long time.

*Musical Mangrove*, a documentary film and the 3rd chapter of my doctoral research, reflects the issues of my field-based research site, the Sundarbans. The mangrove forest shares its islands and water bodies between India and Bangladesh. In describing the forest, climate fiction written Amitabha Ghosh (2005) writes in his book, “The Hungry Tide:”

“The islands are the trailing threads of India’s fabric, the ragged fringe of her sari, the *āchol* that follows her, half wetted by the sea. They number in the thousands, these islands. Some are immense and some no larger than sandbars; some have lasted through recorded history while others were washed into being just a year or two ago..... There are no borders here to divide fresh water from salt, river from sea. The tides reach as far as two hundred miles inland and every day thousands of acres of forest disappear underwater, only to reemerge hours later (p. 5).”

Harmonizing Ghosh’s (2005) description, the film *Musical Mangrove* shows the artistic and musical movement emerging in India and Bangladesh to save the forest.

Unsurprisingly, the term *āchol* also has been used to describe the region in the songs written about the forest in the film. The documentary follows the story arc of the musical groups from the tribal and native communities of Indian Sundarbans and the Bangladeshi urban academics and artists who write songs and perform them to protest a coal-burning power plant in the fringe of Sundarbans.

The final chapter of this dissertation delineates the method, *Field to Media*. Through thick Description (Geertz, 1973), I shed light on the embodied experiences of making an environmentally themed film, the collaborative nature of production and highlight the need to move beyond textual readings and embrace community-based research methods. There are tacit realities that are not reflected in *reading* a film, and with examples from my fieldwork, I bring the nuances which would be lost if one only *reads* a film. *Reading* a film by design overlooks the lived experiences of filmmakers, their cast, and crew. A field-based engaged method complements rather than replaces textual analysis. Textual analysis and writing alone have been and will continue to be the dominant modes, but the field needs to broaden, methodologically, and that *Field to Media* is one to consider. Thus, I pose my film as an example to illustrate my argument.

Ultimately, my work aims to bring a theoretical and a practical shift. Firstly, it shows the limitation of the textual reading of films and media objects and brings in the value of field-based work. It shows how the deeper historical context and broader geographic scale of the Sundarbans informs a researcher's cinematic journey and that, in turn, engaging with the place and matter via ethnographic film allows them to bring a new perception to the questions they are trying to answer. Secondly, my

example, *Musical Mangrove*, and the detailed method section target to provide a blueprint for the current film, media, and environmental communication researchers who wish to embrace a more hands-on approach. Thus, I bring together production-based experience as a field researcher with the broader field of film criticism, especially in terms of environmentally themed film and film studies, for the sake of making a distinct, experimental, and integral contribution to ecocinema studies, media studies, and environmental communication more broadly.

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