Bioregional Analysis and Ecological Politics of the Indian Sundarbans: An Interpretative Study

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Abstract

The Sundarbans is a uniquely gifted landscape. From the world's largest thriving mangrove forest to the home to the Royal Bengal Tiger, it is indeed a storehouse of natural resources. But sadly, this ecosystem is equally fragile. This vulnerability is projected through biodiversity loss, rise in average temperature, and sea level rise due to climate change. In addition to being a low-lying coastal region, which makes it more susceptible to frequent cyclones, tidal floods, and earthquakes; this landscape experiences severe conflicts of interest between the locals and the wildlife, which has been impacting this dynamic relationship since the introduction of the conservation policies in the colonial era. There are many theoretical paradigms that challenge and examine this dynamic relationship, and one such is *bioregionalism*. Bioregionalism, in short, is both an environmental movement as well as a philosophy that affirms that a region is not solely defined by the border led by politics or legislation, but is held together by its natural forms, flora, and fauna.This movement critiques the mainstream dualistic modernity perspective and posits a co-adaptive, sustainable, and de-centralized working society. For this reason, this paper proposes to explore the Indian Sundarbans, as a unique cultural landscape by analyzing three events from the past: Project Tiger 1973, Morichjhanpi Massacre 1979, and The Sahara India Group Project of "Virgin Islands" 2003 from a bioregional perspective. This paper intends to undertake a correlational philosophical study to analyze a South Asian landscape (Indian Sundarbans) from an American theoretical standpoint (bioregionalism). Using the Indian Sundarbans as a case study, this study is aimed at exploring the underpinnings of bioregionalism and understanding the discourses that condition it.

Keywords: Indian Sundarbans, bioregionalism, human-wildlife, nature, culture

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Bioregionalism: More Than a Socio-Environmental Movement

In a world characterized by rapid globalization, and scientific and technological advancement, together with urban expansion, there has been an inevitable urge within people to find connections back with the natural world. While the manner in which people suspire forthese connections and the way in which they go about it can be problematic

and debatable, what remains established is that the connections sought and the implications of the same are imperative in scholarly discussions in the environmental discourses. Bioregionalism is a concept rooted in the belief that human communities should be intricately harmoniously linked with the ecological, physical, and geographical features of the land they inhabit, and not merely seen as separate individuals. This idea that is anchored in relationality offers a unique framework to assess, analyze, and address our relationship with the environment. By fostering a deeper sense of place and promoting sustainable relationships with the environment, bioregionalism holds a superlative potential to inspire innovative solutions to some of the pressing global challenges. There is a growing need for recognizing our interconnectedness with nature and so, exploring the layers of bioregionalism becomes even more pertinent.

Bioregion, though not a very easy construct, literally signifies 'life-place' or 'place of life' or 'life territory' (Schroeder, 2000), adding an extra dimension to the existing notion of regionalism. The core conceptions of bioregionalism are way older than the term itself. It attempts to situate human beings within their respective spheres that is their bioregions as interconnected members of the ecosystems. The conspicuous consolidation of human-environment relations can be strategically and organically constituent in enabling constructive activism towards protecting the environment. The idea of dividing the earth into five regions of Northern, Southern, Temperate, Torrid, and Frigid zones based on similar climatic features was put forth by Pomponius Mela back in the first century, is one such instance to show that regionalism is an ancient concept (Young, 2000). It is a long-established fact that economic patterns, bureaucracy, and political boundaries have influenced the formation of a region (Lang, 2002). Region, William L. Lang writes, "always has referred to a portion of a larger polity or a specialized area of economic activity" (Lang, 2002, p. 414). As a result, the local cultures and identities have been compromised for building unified national narratives.

Regardless of geography, regions can be broadly classified into three types- "functional, formal and vernacular" (Young, 2000, p. 47). As the name suggests, the boundaries of functional regions are determined by the extent of their operational or serviceable reach (Young, 2000). These regions remain stable as long as the built relations are left undisturbed. The 'function' in a functional region can be political, business-oriented, social, or cultural. Popular examples of functional regions are metropolitan cities planned, centering trade and commerce, harbours and ports created for coastal infrastructure, and shopping complexes built at the center of a city too can be considered as a functional region. In contrast, according to Young, formal regions "... does not focus on the operation and range of a phenomenon but is an area defined by the essentially uniform distribution of a cultural or natural feature or features within it" (Young, 2000, p. 47). This generalization is used in both ways- either to differentiate the region from the adjacent or distant areas or to form a formal region based on a common feature, like language and so India is the biggest example of a formal region because India was internally divided into states based on the regional languages. Lastly, vernacular region is an emerging concept where the boundaries are flexible with no definite function dominating the region or any feature declaring itself as the universal identity of that region (Young, 2000). Bioregionalism, in certain ways, blends in with

each type of region and forms a holistic combination.

Bioregionalism received a breakthrough in the year 1972 when Berg and Allen Van Newkirk, an American poet, shared mutual concerns over the widespread environmental degradation. The term 'bioregion' is believed to have been originally coined by Van Newkirk, which was later developed by Berg and Raymond Dasmann, an ecologist who was then working for the International Union for the Conservation of Nature and Natural Resources (Evanoff, 2017; Glotfelty, 2015; Young, 2000). From the beginning, Van Newkirk was concerned about cataloguing and preserving varieties of plants and animals; and was of the opinion that the borders of a region should be determined by the prevailing landform, soil type, and native species living on it (Glotfelty, 2015). That is why he preferred naming this phenomenon as 'bioregion' (literally meaning life-place) over 'region'. He envisioned bioregions as a way of classifying natural areas in scientific terms in order to "develop concepts and information that could be used on an academic and agency level" (Berg "Beating" 385 as cited by Glotfelty, 2015, p.16). However, for Berg, bioregion was a way to include ecological concerns within the purview of political and cultural discourses. Berg and Dasmann together defined bioregion as a term applicable to "both to a geographical terrain and a terrain of consciousness- to a place and the ideas that have developed about how to live in that place" (Lang, 2002, p. 416). According to Berg's bioregional vision, "Bioregions are geographic areas having common characteristics of soil, watersheds, climate, and native plants and animals that exist within the whole planetary biosphere as unique and intrinsic contributive parts" (Glotfelty & Quesnel, 2015, p. 62). Such that every region is a bioregion.

Perhaps, one of the most compact definitions of bioregion can be found in Kirkpatrick Sale's account, who explained it as "a place defined by its life forms, its topography, and its biota, rather than by human dictates; a region governed by nature, not legislature" (Alexander,1990, p. 162). Sale's treatise, *Dwellers in the Land: The Bioregional Vision,* provides a systematic introduction of bioregionalism to the masses. According to him, bioregionalism is an alternative paradigm that critiques the flourishing "industrio-scientific paradigm" (Aberley, 2005). Sale preferred region and community over state or nation. He wanted to integrate urban, rural, and wild settings together. For him, a bioregional paradigm would mean to encourage symbiosis relationships amongst species in an ecosystem rather than supporting monoculture or polarisation (Aberley, 2005). The governance scheme for Sale refers to the "adoption of a decentralized structure of governance that promotes autonomy, subsidiarity, anddiversity" (Aberley, 2005, p. 28). He is in favour of an anarchist and utopian socialist form ofa managerial planning system.

In bioregional thinking, there is an urge to shift the standard of defining places in terms of geopolitical factors as opposed to their ecological features, which is not an easy shift to embrace. This begs the question: how to determine a bioregion? To begin with, William L. Lang has identified two philosophical strands within the bioregional framework*: materialist* and *idealist* (Lang, 2002). On one hand, materialists like William Robbins had opined, that bioregions "must give central consideration to material, physical, even objective realities" (Lang, 2002, p. 417). This outlook emphasizes the resources available in that landscape which the inhabitantsmake use of and so their reliance justifies the relationship with that region. This sort of explanation distorts the

whole purpose of the paradigm shift from geography to ecology on the simple grounds of 'needs'. An idealist like Yi-Fu Tuan would disagree who thinks a landscape to be "a construct of the mind" and so, bioregion would implicitly refer to a place where people 'think' they live. Or differently put, in Wendell Berry's words, "If you don't know where you are you don't know who you are" (Lang, 2002, p. 418). An idealist approach to defining the borders of a bioregion runs the risk of calling it a figment of imagination. However, this closely reflects the connection of identity with a bioregion as suggested by Berg too. For Berg, questions like: "Who am I?" and "Where am I?" find a bioregional justification that eventually redefines human identity in the following ways:

- You are a member of Homo sapiens, a mammal species sharing the biosphere interdependently with other species and natural systems that support them.
- You are in a bioregion, an ecological home place that has distinct continuities that affect the way you live and are affected by you (Glotfelty, 2015, p. 4).

Gary Synder, another important figure in the history of bioregionalism, defines this movement as, "the entry of place into the dialectic of history" because he thought that the people were losing a sense of place, especially in America (Schroeder, 2000, p. 11). Bioregionalism does not comprise only living in a certain place, but rhyming with the cultures and ecology of the dwellers of that place. In Stephanie Mills' words, "In a bioregion, the citizenry is more than human. Bioregionalism goes beyond ecology, in its enfranchisement of other life forms and landforms, and its respect for their destinies as intertwined with ours" (Alexander, 1990, p. 162). Becoming an ecological citizen is what Berg and Dasmann have described as *reinhabitation*.

Themes of Bioregionalism: Exploring the Tapestry of Bioregionalism

Bioregionalism aims to overcome the dual thinking of nature versus culture by reiterating that both these components form a symbiotic relationship (Evanoff, 2017). The primary goal of bioregionalism was to establish a co-adaptive relationship between the local cultures and their environment, through "reciprocal interaction" where both co-evolve and transform each other (Evanoff, 2017, pp. 57-58). For Jim Dodge, bioregionalism involves three basic principles, "a decentralized, self-determined mode of social organization; a culture predicated upon biological integrities and acting in respectful accord; and a society which honors and abets the spiritual development of its members" (Evanoff, 2017, p. 58). For Sale, a bioregional framework would oppose the "industrio-scientific-paradigm" which favoured the capitalist mindset for unlimited exploitation of nature by advocating a centralized form of a government (Evanoff, 2017). Bioregionalism preaches self-sufficiency from local production for the local population. In this regard, Dasmann makes an interesting distinction between 'ecosystem people' and 'biosphere people' which resonates with Ramachandra Guha and Madhav Gadgil's differentiation of 'ecosystem people' versus 'omnivores' (Evanoff, 2017; Karan, 1997). In this section, the key themes of bioregionalism are discussed to demonstrate its potential for being more than a socio-environmental movement.

Ecological regionalism: *Bioregions*

Bioregionalists perceive administrative boundaries and nation-state borders as artificial

constructs (Alexander, 1990). According to bioregionalists, a bioregion is defined by its natural flora and fauna, topography, and other geographical features. Bioregionalism encourages the local communities as well as the individuals to identify with these unique natural characteristics of the landscapes they inhabit, thereby fostering a place-based identity. By espousing an ecological boundary system, bioregionalism seeks to promote eco-friendly lifestyles by limiting internal and external exploitation of resources. Here, Dasmann's distinction between 'ecosystem people' and 'biosphere people' becomes relevant (Evanoff, 2017). Ecosystem people are focused on sensibly utilizing the resources of their bioregion and take complete control of their actions. In contrast, biosphere people exploit the resources of other bioregions from outside, to support their elite lifestyles and encourage consumerism (Evanoff, 2017). This sort of exploitation gives rise to economic and social differences too. Kirkpatrick Sale differentiated bioregions into three interlinked categories, namely- *ecoregions*, *georegions,* and *morphoregions*. Where *ecoregions* would entail vast landmass with similar natural vegetation and forms; *georegions* can be identified as a mid-size-region trapped within mountain ranges, river basins, and valleys; and finally, *morphoregions* are comparatively smaller portions of land identified by changing "life forms and human landuse patterns" (Evanoff, 2017, pp. 56-57).

Bioregionalism is also a territory-based standpoint. In this context, Schroeder discusses Deleuze and Guattari's conception of a territory, which is both a physical and mental space (Schroeder, 2000). Where mental ecology implies cross-boundary processes including social and natural interactions; and social ecology, in contrast, "follows from the resingularising activity of mental ecology and constitutes the local aspect of the universal-which is not to say global- extension of thinking" (Schroeder, 2000, p. 13).

Decentralisation

One of the crucial tenets of bioregionalism is decentralisation. By opposing strongly external authority, bioregionalism advocates decentralised region-based government which would favour the needs and values of the community living in the bioregion. This form of a power structure within bioregionalism was formulated by Jim Dodge and Kirkpatrick Sale. For Sale, the 'bioregional paradigm' (Sale, 1985) would grant economic, social, and political powers to the local communities. For Berg, it would mean grassroots-level activism and supporting other bioregional communities in need. However, if went wrong decentralisation can be a tricky standpoint. One of the problems with decentralization is that, as Brian Schroeder also mentions, "... it seems to conflict with the desire and tendency to universalize socio-political strategies to effect their stated goals" (Schroeder, 2000, p. 11). In addition, the critics of bioregionalism often think of this decentring as an over-simplistic form of "social anarchy or chaos that blinds itself to the concrete social, economic, and political realities" (Schroeder, 2000, p. 12). In other words, bioregionalism encourages local autonomy and self-sufficiency. By relying on the local resources and knowledge about the limitations of that region, communities can build a resilient form of government that will be less dependent on distant centralised systems. At the same time, it challenges the existing ways of governance and urges to be inclusive, responsive, and participatory in addressing complex environmental concerns.

Ecological sustainability

Bioregionalism supports self-sufficiency and ecologically sustainable practices through spreading awareness about such practices and resource management. It seeks to work in harmony with the traditional practices of the locals and integrate them with modern technology.

Reinhabitation

Reinhabitation, according to Berg and Dasmann meant,

> learning to live-in-place in an area that has been disrupted and injured through past exploitation. It involves becoming native to a place through becoming aware of the particular ecological relationships that operate within and around it. It means understanding activities and evolving social behaviour that will enrich the life of that place, restore its life-supporting systems, and establish an ecologically and socially sustainable pattern of existence within it. Simply stated it involves becoming fully alive in and with a place. It involves applying for membership in a biotic community and ceasing to be its exploiter (Berg & Dasmann, 2015, p. 36).

A community that practices living-in-place lives a life of balance and sustainability. The idea of reinhabitation is closely associated with building a bioregional identity as well as increasing employment opportunities (Berg & Dasmann, 2015).

Activism and Advocacy

Peter Berg believed that people themselves could bring positive changes to environmental problems, and he named them "the planetariat" (Glotfelty, 2015, p. 2). He further elaborates,

> Planetarians, people who view themselves from within the biosphere rather than from the top of it, extend importance beyond the human species to include other life and the processes by which all life continues. The planet is organismic and expresses itself through diversity … Planetarians are anxious about maintaining distinct regions, cultures, and species, and look forward to experiencing full ranges of planetary diversity without destroying them (Glotfelty & Quesnel, 2015, p. 42).

The Sundarbans: Land, People and Nature

The early traces of interactions with the land of Sundarbans, of human settlements, and the nature of its surroundings are perhaps most accurately portrayed in myths and local folklore. The name Sundarbans is a recent development because in the oral tradition of folk songs, this land was referred to as *bhati* extending from the eastern shores of Bhagirathi in the west to Chittagong in the east (Chakrabarti, 2009; Sarkar, 2010; Ghosh, 2005). A *bhati* refers to a low-lying area routinely washed by the ebb tides. A line from one of the folk songs depicting this place is, *"Bhati haite aila bangal, lamba lamba dari"*, which means "The long-bearded Bangal (a term locally used for a resident of eastern Bengal) has arrived from Bhati" (Chakrabarti, 2009, p. 76). One of the earliest references to the Sundarbans by Hiuen-Tsang, a Chinese traveller was also in terms of a low-lying

land bordered by the sea (Chakrabarti, 2009). Originally the Sundarbans, according to Chatterjee, referred to the entire southern portion of the Gangetic delta, but was also strongly applicable to the area of the land which was far beyond the scope of permanent settlement (Chatterjee, 1990). There are varied derivations attached to the name- 'Sundarbans'. Much appropriately pointed out by John Rudd Rainey that the Sundarban has been mistakenly anglicised in the plural form and probably referred to the entire landscape (Rainey, 1891). For ease of referencing in my study, I will be using Sundarbans in a similar sense, Indian Sundarbans specifically for the Indian Sundarbans deltaic region and Sundarban Biosphere Reserve (SBR) alluding to the biosphere reserve in the Indian Sundarbans.

Without overly romanticising wilderness, the Sundarbans is also a mysterious place of adventure, filled with fear and anxiety. It is naturally built on a network of estuaries, intersecting river channels, creeks, islands, and islets; as a result of regular tidal forces and flooding, leaving behind a heavy mass of mud and soil, which has led to the formation of the land, now familiar as the Sundarbans (Sreemani, 2005; Sarkar, 2010). This deltaic tract of forest lies at the lowest region with negligible availability of fresh water and is frequently subjected to cyclonic depressions, violent storms, and floods, especially during the monsoons (Sarkar, 2010). From recent studies, it has been found that one of the characteristics of deltas is associated with climate change, resulting in sea-level rise, increased salinity, hydrological effects, and inundation which straightaway impacts livelihoods and economic development of those areas (Nicholls, et al., 2020). These everyday life battles add to the adventure index along with the fear factor. Strikingly, this landscape has gained popularity in recent years not so much for its prevailing critical conditions, but mostly because of the diverse biodiversity and for being the largest surviving mangrove habitat with human-eating tigers, which has attracted tourists from every corner of the world. However, sadly due to the contemporary triple planetary crisis, this landscape is slowly vanishing.

The Sundarbans can be divided into two segments- the north-western part and the southern portion with distinct geographical features, as agreed by most of the scholars in this area. The north-western part is closer to Kolkata, one of the metropolitan cities in India, which is relatively more stable, and safer, has fertile patches of land due to a freshwater irrigation system, and is less tormented by storms (Jalais, 2010; Ghosh, et al., 2018). The extreme north is bordered by the Hooghly River which has sustained the development of various ports, making navigation easier as compared to its southern counterparts (Sarkar, 2010). According to Jalais' demarcation of 'inhabited islands', this largely occupies the 'stable delta' which was the first to be deforested and cultivated between 1765 to 1900 (Jalais, 2010). While the southern half, also referred to as the 'active delta' by Jalais, is more susceptible to environmental damage as it is prone to extreme erosion and is less stable (Ghosh, et al., 2018; Jalais, 2010).
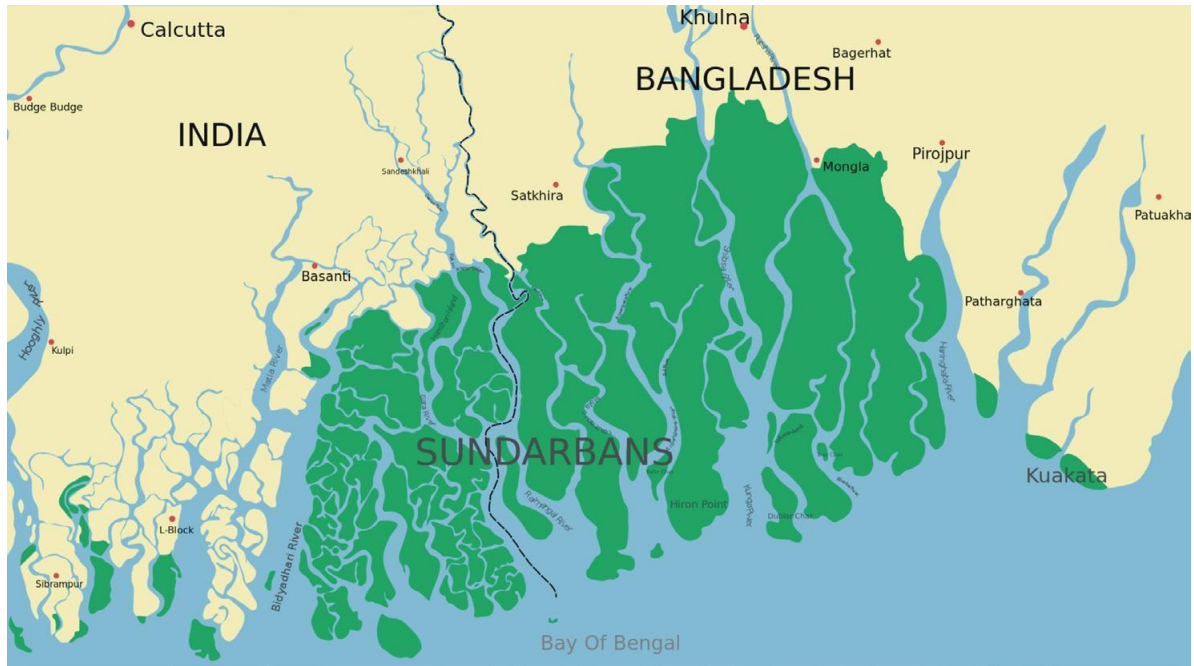
Figure 1. The Combined Sundarbans. (Source: Uddin, 2019, p. 291)

Currently, the Indian Sundarbans are divided into districts and administrative blocks for better management. According to the Department of Sundarban Affairs, Government of West Bengal[i], this region is spread over two districts of West Bengal state- the North 24 Paraganas and the South 24 Paraganas, which is further divided into nineteen administrative blocks, having sixteen police stations. Additionally, these districts are distributed into sub-divisions ofKakdwip, Diamond Harbour, Baruipur, and Canning in South 24 Paraganas, and Bashirhat in North 24 Paraganas (Sundarban Affairs). According to the latest India Census 2011, out of one hundred and two islands only fifty-four are inhabited by human settlements, with apopulation of nearly five million people (Ghosh, et al., 2018; Paul, 2017).

Politics of Conservation: Cases from the Past
The role of power and politics of conservation has interminably been the core causeof environmental degradation in the Sundarbans, and not quite the inhabitants alone. At this juncture, I wish to clarify that I condemn the exploitative anthropogenic activities such as species trafficking, deforestation, and changes in vegetation patterns, which have threatened biodiversity. However, the management strategies that claim to be universal and better suited to improve the relationship dynamics within the Indian Sundarbans have substantially failed due to the underlying power structures through which they are employed. In contrast, hypothesizing to apply bioregional thinking while mapping out place-specific environmental policies thatfocus on the immediate problems faced by the members of the ecosystem of that place while bearing in mind the past lessons and future implications may be a robust and sustainable method.

In this section, I consider three historically significant episodes that would demonstrate my standpoint by highlighting the inadequacies of the cases against the bioregional framework. There are several such contingencies and conservation policies that reflect the core problems of this area. However, I have chosen only the following three cases, which manifestly highlight the conflict of interests and potential gaps in my intended field of study. In order to do so, I list three events: the Project Tiger, the Morichjhanpi Massacre, and the Sahara India Group project.

Case 1: The Project Tiger 1973

The Sundarbans have constantly been in a state of flux- from land formation and destruction by tides to reclamation for human settlements. But this is not the only characterization of the Sundarbans. When need be, it has provided shelter to the unwelcome largely when the state of Bengal was extremely fragile. In one of the folk cultures, as Chakrabarti mentions, a place called *Byaghratatimandal* which evocatively translates to "a forested seashore infested with tigers" proves that the tigers were one of the native species of this place and probably this was one of the main reasons why reclamation was so difficult during the early days (Chakrabarti, 2009, p. 85). The fear of tigers was and still is real. In this case, both the Europeans as well as the Indians were on an even footing. People preferred to be accompanied by the *shikaris* (hunters) who would occasionally shoot to divert or frighten the tigers, and if required may hunt the game in defense. The terror of the tiger not only affected the inhabitants but also resulted in the discontinuation of development-oriented work. As a consequence, the British government formulated a policy to reward the indigenous *shikaris* (hunters) who were inherently looked down upon due to their modest social stature, to kill the tigers (Chakrabarti, 2009; Chatterjee, 2023).

The following news article was published in the Calcutta Gazette newspaper in 1883, authorizing the rangers and the foresters to reward the hunters for killing tigers. I quote from Chakrabarti here,

> In 1883 the amount of the reward was Rs. 50 for each full-grown tiger and Rs. 10 for each cub. To receive their reward, the shikaris were required to produce the skin and skull of the animal for the forest official. The reward was gradually raised over time, each increase following fresh depredations of tigers in the jungle. In 1906 the reward was raised to Rs. 100 per full-grown tiger and Rs. 20 per cub. In 1909 the amount for a full-grown animal was further raised to Rs. 200. This last raise was prompted by the loss of 500 lives to tigers between 1906 and 1909 (Chakrabarti, 2009, p. 87).

Roughly, 2400 tigers officially were reported to be killed between 1881 and 1912 (the killings outside the forest area or unreported ones are not included in this figure) (Chakrabarti, 2009). The population of the tigers reduced in piecemeal and by the 1970s, it was recorded below 2000 from 40,000 in 1947 (Indian Express, 2023). Earlier this year, the Project Tiger celebrated its fiftieth anniversary. The Project Tiger was launched on 1st April 1973 to address the diminishing population of tigers in India as a result of habitat loss and unrestricted hunting. The Sundarbans Tiger Reserve became one of

the nine tiger reserves in India. This project though named after India's national animal, was not only limited to the conservation of the tigers. Because of the positioning of the tigers in the food chain, it necessitated to factor in other species like deer, monkeys, lions, rhinoceros, waterresources, and the flora around. It certainly required to think about questions like- how much land each tiger requires. Which zones will be the best fit for the tigers for undisturbed mating? This further required claiming for more land limiting the inhabitants and displacing them from their homes. It perceptibly ignited tensions between the locals with the forest officials on one hand, and on the other end gave rise to the human-tiger conflict. Chakrabarti comprehensively elucidates this crisis as,

> In their struggle for survival, thousands of people enter the forest braving the crocodiles, sharks, and tigers in order to gather honey, cut wood, and catch fish. This brings them face-to-face with the tigers. Sometimes the tigers enter villages near the buffer zones and carry off men, women, or cattle. This is an area where tigers kill hundreds of people a year, but since they are a protected species, killing a tiger that has been preying on a village will bring in the government authorities to mete out punishment; a terrifying prospect for the deceased's nearand dear. Thus, the new widow and the victim's children are forbidden to cry and taught to say their father has died of diarrhea, because if the actual cause of death is found out the family members will be forced to pay for the dead trespasser and will be treated like criminals (Chakrabarti, 2009, pp. 91-92).

Case 2: Morichjhanpi Massacre 1979
The Sundarbans were not completely populated until the late eighteenth century and it had events of migration earlier too. After the partition of India in 1947, the eastern part of Bengal belonged to East Pakistan where the lower-caste Hindus became a minority. Due topolitical instability and religious differences, the minorities were brutally persecuted in East Pakistan (present Bangladesh). As a result, the minorities migrated in bulk to India during the 1960s-1970s, and sought refugee status in Dandakaranya and Mana camps in central India(Jalais, 2007). Dandakaranya was situated near the states of Chhattisgarh, Odisha, and MadhyaPradesh which was culturally as well as topographically distinct from the Gangetic delta, and so the migrants were ill-at-ease. These migrants felt insecure as the land was arid, and whateverthey managed to grow was destroyed by the tribal communities already living in those areas.Ross Mallick quotes from Khanna, "The soil is poor and there is no irrigation. Our crops are looted by the local Adivasis [tribalsl, whom we cannot fight because they shoot with bows andarrows, but even more so because they get protection from the police, which is anti-refugee" (Mallick, 1999, p. 105).
Meanwhile, in Bengal, the Communist Party was then in the opposition and was strivingto reserve votes. Learning about this injustice, the Communist party made the most of this situation by promising land for these dislocated migrants in Morichjhanpi island in the Sundarbans. After coming into power, the promise remained unfulfilled due to some discrepancies within the newly formed Left Front

Party. Yet the refugees managed to reach Morichjhanpi, many got arrested on their way and were sent to camps. About one lakh and twenty thousand people left the camp for Morichjhanpi between January and June 1978 (Jalais, 2005).

With time, the refugees formed a community in Morichjhanpi with "a viable fishing industry, salt pans, a health center, and schools over the following year" (Mallick, 1999, p. 107). Apparently, Morichjhanpi was a part of the Sundarbans Reserve Forest which was officially signed in the year 1973 and hence, inhabitation meant violation of the Forest Act. Ross Mallick quotes from a report issued by the Refugee Relief and Rehabilitation Department1979, that the refugees were "in unauthorised occupation of Morichjhanpi which is a part of the Sundarbans Government Reserve Forest violating thereby the Forest Acts" (Mallick, 1999, p. 107). This is quite problematic and questionable as to why it was not brought to notice before. But when the persuasion from the government failed to convince the refugees to abandon the island, harsh external forces were used. Unfortunately, their days of relief were short-lived. On 31st January, 1979 they were killed and tortured to death. It was a state-sponsored massacre without media coverage, to get rid of thousands of people in the name of 'protecting biodiversity'. Till date, there are very few records of this event since the media coverage was strictly banned by the state (Jalais, 2005). It was not restricted to killing but brutalities stretched to "239 adults to die of cholera and typhoid and 136 of starvation, 271 children to die of hunger or due to lack of medical care, and at least three persons to commit suicide" and "24 women were raped and sexually assaulted, 128 people went missing, and hundreds injured and imprisoned" (Jalais, 2005, p. 2458).

This massacre sheds light on the different levels of injustices enforced by the system. A polarisation had formed within the state of West Bengal, which seemed to deliberately treatthe Sundarbans as remote. Already being denied basic amenities by the government, the islanders tried reaching out to the nearest city in search of odd jobs and found themselves managing the households of so-called 'educated elites'. One of the islanders, as noted by Jalais, mentions "Tigers, annoyed at the disturbances caused by the violence unleashed in the forest had started attacking people and that this was how they ended up getting a taste for human flesh." (Jalais, 2010, p. 171). The islanders noticed that the tigers had become "arrogant" (Jalais, 2010). This brutal episode attacks the very foundation of the conservation policies andthe organising bodies that incubate it and persuades us to think critically about the covert layersthat are embedded in these structures.

Case 3: The Sahara India Group Project of "Virgin Islands" 2003
In the debate article, "The Sundarbans: Whose World Heritage Site?", Annu Jalais (2007) critiques the dual treatment of the government for expanding the wild-humans gap by capitalising on tourism-based projects and conservation policies. In 2002, the Supreme Court of India ordered the eviction of the inhabitants, mostly the fishermen of Jambudwip island fora tourism project sponsored by the Sahara India Group for building a dream island destinationwith urban facilities (Jalais, 2007).

According to an online report by the Environmental Justice Atlas[ii], the project was supposed to be built on the islands of Sagar, Fraserganj, L-Plot, Kaikhali, Jharkhali, and others,with a combination of floating houseboats and on-shore cottages. It was an eco-tourism projectsanctioned by the Government of West Bengal in accordance with the Ministry of Environment and Forest and the Sahara India Tourism Development Corporation (SITDCL). As a result, an agreement was signed that ensured partial monopoly by the Sahana group over the Sundarbans'land. A report by the Times of India[9] stated that "In the activity area of Integrated Sahara Tourism Circuit (SITC) project in the Sundarban region, SITDCL will have control ofShanra's own operational system in respect of land and floating facilities to be extended to tourists and service personnel" (Times of India, 2 February 2004)[iii]. In addition, "No new agencywill be permitted to initiate similar tourism activities in the activity area without the permissionof the government of West Bengal" (Report by Times of India, 2 February 2004).

Jambudwip Island in the Indian Sundarbans came within the boundary of the reserve forest and was mostly populated by the fishing community. Almost since 1955 the fisherfolkshave lived on this island and continued fishing, which was the only source of their livelihood.Due to the influence of capitalism and the popularity of eco-tourism, the government then signed up with the private Sahara India company to transform the islands of the Indian Sundarbans and save them from extra land deterioration (Das, 2014). Later from a study using GIS technology, it was proved that the land deterioration (such as the land cover change due tosea-level rise, monsoon patterns, and temperature rise) was caused naturally and was not a result of fishing or other man-made activities (Das, 2014). However, the inhabitants were evicted and eventually, the project had to be cancelled due to innumerable protests and environmental activism.

Bioregional Analysis of the Cases: A Discussion
No matter how distant one case study is from the other, the mundane treatment meted out towards the inhabitants (who are almost always dispossessed) and feeling of 'unsafe' and 'unwanted' at any given time is perhaps comparable. In case 1 of Project Tiger, it all startedwith unfettered killings of the tigers, started because from the beginning they were portrayed as"man-eaters" and wild beasts. In this scenario, the unsafe becomes the ferocious tigers. This projection is completely negated in case 2, where the tigers become the main citizens and the poor migrants fall prey to a politically staged conspiracy of conservation diplomacy. Case 3 is a combination of corporate abuse, lack of transparency in the governance, and false projections of extractive fishing activities as being the cause of environmental degradation-making way for a mega-tourism project that naturally failed to transform the environment for the better.

Project Tiger: Bounded Spaces and Free Creatures

In the first place, Project Tiger would not have existed had there been no merciless killings. During the colonial and post-colonial periods, hunters were rewarded for killing tigers, as theywould disrupt the establishments and terrorize labourers and inhabitants. As the tiger population gradually decreased and simultaneously with the rise of environmentalism globally, Project Tiger was introduced in India under the presidency of Indira Gandhi's government. Soon the tigers became the real citizens, and the locals became the 'others'. The delegation of the Tiger Reserve did not factor in the inhabitants, which created a gap between the tigers and the islanders. Part of this old animosity as discussed by Chatterjee is due to biodiversity loss, deforestation, and habitat degradation and another reason is the lack of participatory community-based approaches to minimize human-tiger conflict (Chatterjee, 2023).

Arguing from a bioregional framework, firstly, in bioregionalism, epistemically each component carries equal worth. In a bioregion, every individual from plants to humans is believed to be living in a co-adaptive environment. Hence, there is no room for hierarchical treatment with respect to who gets more land or who needs to be protected. Another core idea of bioregionalism is to defy the dualistic thinking of nature versus culture, which also restricts polarisation in a bioregion. While deciding the borders of Tiger Reserve, the bioregional paradigm might have seemed useful for negotiating boundaries for tigers and the inhabitants, as it would have meant participation of the latter group. Incorporating bioregional understanding in the conservation discourses would ensure 'inclusion' over 'exclusion'.

Particularly, in the Indian Sundarbans context, another problem arises with respect to 'whomanages what?'. Each protected area is managed by different governing bodies, such as the Project Tiger is handled federally, national park and wildlife sanctuaries are headed by the WestBengal Forest Department, and overall, the Sundarban Biosphere Reserve is monitored by thedirector, delegated by the Principal Chief Conservator of Forests and Director. This sort of governance scheme reduces the effectiveness of the whole process. Nominating locals, insteadof hiring officials from the outside, might ease the process. In this way, a middle ground can be achieved, as complete decentralisation in the Indian context is not practically possible.

Morichjhanpi Massacre: A Strong Case for Reinhabitation

The Morichjhanpi event questions the role of government, and the need for protected areas andmore significantly points to a deeper identification of 'for whom?'. It compels us to think about the nature of a place, what constitutes a home, and what can lead to the uprooting of the same. 'Reinhabitation' is a process, as elaborated by Peter Berg and Raymond Dasmann, of

> learning to live in a place in an area that has been disrupted and injured through past exploitation. It involves becoming native to a place through becoming aware of the particular ecological relationships that operate within and around it. It

means understanding activities and evolving social behaviour that will enrich the life of that place, restore its life-supporting systems, and establish an ecologically and socially sustainable pattern of existence within it. Simply stated it involves becoming fully alive in and with a place. It involves applying for membership in a biotic community and ceasing to be its exploiter (Berg & Dasmann, 2015, p. 36).

By this definition, a disturbed place (non-disrupted places can be reinhabited too) can be transformed into a liveable one by practicing 'living-in-place'. This methodology of social organization is not restrictive to the locals only but also encourages people from outside to participate and build a relationship with the new place. Reinhabitation can be conversely viewed as a return to a potential bioregion for a renewed creation of an ecologically sustainable community (Ryan, 2012). The migrants' journey to Morichjhanpi Island can be compared with the process of reinhabitation. However, in the Morichjhanpi case, it was not the land that was disrupted but the people were. There are, at this stage, more questions than we perhaps have answers for, but the concept of inhabitation seems to inch towards 'accommodating' or 'accommodation'; and this if finely applied, can potentially enable reconciliations.

Sahara Project: A Capitalistic Exploitation

Arguing from a bioregional standpoint, this project would have been shelved on the grounds of capitalism or in Sale's terms, based on the "industrio-scientific paradigm" (Evanoff, 2017, p.59). This project would have resulted in loss of biodiversity, traditional practices, mass displacement, unemployment, and most importantly, loss of sense of place. Bioregions are conceived as self-sufficient places that can survive without any technological interventions. The interventions, if well-intended and noble, can induce a positive change; however, despicable corporate capitalist projects in partnership with government recklessness ought to yield hazards for not just the human-animal lives but the entirety of the landscape everyone is apart of.

Declaration of Conflicts of Interest
The Author declared no conflicts of interest.

Notes:

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i For more details, please refer to: https://www.sundarbanaffairswb.in/

ii For further details, please refer to: https://ejatlas.org/print/sahara-india-eco-tourism-project-in-sundarban-west-bengal-india

iii Report by Time of India, https://timesofindia.indiatimes.com/city/kolkata/floatel-clause-raises-controversy/articleshow/469239.cms

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