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The Broken Bond with *Ghaggar*: An Anthropological Exploration of Apathy towards the Intermittent River

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Abstract

Rivers possess substantial importance in communities, acting as sources of water and nourishment as well as vital components of cultural identity, and nurturing local connections. That said, when rivers experience environmental degradation because of pollution, resource extraction, or climate change, this relationship becomes increasingly tenuous, resulting in both physical and emotional disconnection diminishing community involvement significantly. This qualitative study investigates into the socio-cultural ramifications of river pollution in Ghaggar, an inland and predominantly seasonal stream, carried out in S.A.S. Nagar district of Punjab, India. A total of sixty interviews along with eight focus group discussions were conducted in connection with river and the surrounding environment. The objective was to analyse the changing dynamics of the social landscape of the region and to assess how these changes are perceived by the villagers in relation to the riverine landscape. As a result, evidence of a declining interest in the Ghaggar River among its riparian communities underscores a growing detachment fuelled by urbanization, pollution, and socio-economic shifts. This research examines the broken bond, identifying the elements that contribute to the apathy among riparian communities. It is suggested to enhance water management and governance by establishing links with the riparian community, fulfilling spiritual and religious requirements, and safeguarding community rights and welfare in alignment with norms associated with global human rights.

Keywords: Broken bond, Ghaggar, Intermittent River, Riparian community, River water

Introduction

Water continues to be a historically and culturally specific subject, as scientists studying waterscapes document in the larger literature on sociality beyond the human physical space (Ballestero, 2019; Wagner, 2013; Hastrup and Hastrup, 2016). According to Orlove

and Caton (2010), water is "a total social fact", a phenomenon that affects almost every aspect of society, including behaviour, economics, political structure, and cultural and religious customs.

Earlier anthropological literature regarding river water were mainly concentrated on water entities within local myths manifesting a symbolic character. Subsequent to these initial exercises, there emerged a mid-twentieth century focus on the interplay of water, agricultural, and political organisation. The emphasis subsequently shifted to the significance of water as a political and economic asset, and more recently, to the recognition of freshwater as a limited resource and commodity (Wagner,2013; Bakker, 2003).

In line with the extensive literature on multispecies interactions, many modern ethnographies of rivers highlight profound intimacy and "commingling" (Salmond, 2014) between humans and rivers (Féaux de la Croix, 2011). These researchers demonstrate that rivers possess social dimensions and hence warrant deeper anthropological investigation and involvement. Moreover, they underscore the influence of rivers on all aspects of human sociality.

Given the innate social nature of rivers, these have transitioned from being supporting elements in ethnographic narratives to becoming central themes around which ethnographies are structured. Krause (2010) elucidates the interconnectedness of human social and material existence with rivers, demonstrating how rivers unite land and communities. Many anthropologists focused on riverine environments and perceived non-human entities, including rivers, plants, animals, and mountains, as "selves, that is, as beings possessing a perspective" (Kohn, 2013). They underscore the peril of neglecting the agency of rivers, as this perpetuates an anthropocentric perspective that systematically devastates the environment through pollution, biodiversity loss, and climate change.

Rivers have always been integral to human cultures, supplying vital resources such as water and food, in addition to carrying cultural, spiritual, and recreational advantages. Rivers possess substantial importance in communities, acting as essential sources of water and nourishment, as well as vital components of cultural identity and locally operative connections. The notion of "sense of place" embodies the emotional connection by which humans obtain significance and identity from their association with natural landscapes, such as rivers (Relph, 1976). Inculcating a feeling of river place extends this concept, with emphasis on the unique emotional bonds that arise as a result of prolonged intimate living alongside rivers, experiencing their rhythms, ebbs and flows, which form an essential component of everyday life. These attachments promote communal stewardship and environmental responsibility, since individuals usually perceive rivers as

more than simple resources, regarding them as essential to both personal and collective identity (Low and Altman, 1992; Trentelman, 2009). The 'feeling of river place' serves as an analytical construct that addresses the theoretical gap as indicated by anthropologists Feld and Basso (1996).

> 'Anthropologists have paid scant attention to one of the most basic dimensions of human experience – that close companion of heart and mind, often subdued, yet potentially overwhelming, that is known as sense of place.'
>
> (Feld and Basso, 1996)

That apart, when rivers experience environmental degradation from pollution, resource extraction, or climate change, this relationship becomes increasingly tenuous, resulting in both physical and emotional destabilization that diminishes the prospect of community involvement in conservation efforts (Larson and Santelmann, 2007; Pinto and Maheshwari, 2016; Alam, 2011).

The increasing interest of humanities and social science research on water provides an impetus for getting engaged in broader theoretical discussions regarding human-environment interactions and natural resource policy and practices. In anthropology, a 'culturally attuned' methodology has been utilised to analyse how individuals engage with and ascribe significance to aquatic locations, including seas, springs, wells, rivers, lakes, and marshes. Strang's (2005) ethnography of the Stour River in eastern England underscores the significance of human sensory interaction in the cultural formulation of water's meanings. She specifically illustrates 'water's potential as a locus for anthropological inquiry to examine attachment to place' (Toussaint, 2008). Such sensory engagements are central to the feeling of river place, as physical interactions with water shape collective memories, knowledge, and emotional dispositions.

Research shows that proximity to rivers is crucial for maintaining a community's perception of river place. Communities near degraded rivers, like Bangladesh's Buriganga River, crave for its restoration (Alam, 2011), while those near Oregon's Willamette Watershed express dissatisfaction with regulatory measures imposed (Rudestam, 2014). This highlights the impact of place attachment on conservation initiatives. Environmental deterioration can undermine both the physical ecosystem and cultural and social ties essential for efficient river management as is the case with Malaysia's rivers (Firdaus et al., 2021).

The deterioration of rivers undermines the merit of these bonds, breaking the social and cultural linkages vital for sustainable management. Despite the significantly documented ecological and economic ramifications of river pollution, less emphasis has been directed towards its negative influences like eroding culturally significant

connections and deep-seated place attachment among local populations. There is a paucity of literature addressing the topic of contaminated rivers from anthropological viewpoints. Several researchers employed a political ecological framework to investigate river pollution concerns. Harper (2005) illustrates the Hungarian response to the severe heavy metal contamination of the Tisza River in 2000. Williams (2001), describes in her critical analysis of the polluted Anacostia River that flows through Washington, D.C, unfolding the tension between people, the environment, and economic expansion. Alley (1994), while undertaking an anthropological research on the opposition of secular and spiritual issues within the Hindu society in India, analyses the depiction of urban garbage and pollution in Banaras, India. The present study investigates the socio-cultural ramifications of river pollution in Ghaggar, an inland and predominantly seasonal stream. It relies only on rainfall for its sustenance and lacks a permanent source of replenishment, as neither the primary stream nor any of its tributaries originate from the snow-capped Himalayas. The river, already threatened by its unpredictable water volume, has also been confronted with the threats of pollution. This is among the most contaminated river segments in the nation. Despite being smaller than other known rivers in India, the Ghaggar River stands as an example of a nagging conflict between exploitation and utilisation, as well as between unchecked and sustainable development. This conflict further underscores the significance of a river as a critical factor behind all the challenges faced by the place that has grown with it.

Research Area and Methodology

The Ghaggar is a 320 km-long seasonal river and is among the smallest inter-state river basins in India. It originates in the Shivalik Hills of Himachal Pradesh and traverses through Punjab, Haryana, and Rajasthan. Among the major tributaries on the left bank of the Ghaggar River are the Markanda, Tangri, and Chautang rivers. The Ghaggar River Basin is categorised as semi-arid to subtropical (Rai et al., 2023). It may be mentioned here that in Northwest India winter rains (December–March) contribute around 15% of the annual precipitation, whilst the contribution of the monsoon (July–September) is about 74%. The Ghaggar River and its tributaries constitute the natural drainage system of the Derabassi block within the district. The region is defined by predominant land use and land cover categories, including agricultural land, forests, residential zones, water bodies, and industries such as pharmaceuticals, brick kilns, paper mills, and stone crushers. This qualitative study was conducted in the villages of Bhankarpur and Kakrali, situated in the Derabassi region of S.A.S. Nagar district, Punjab .This area falls under the *Puadh* (the eastern half of Punjab) region, lying between the Sutlej and Ghaggar rivers. The study was carried out from July 2023 to July 2024 in different phases. The research area is illustrated in the Figures 1, 2, and 3.

Figure 1: Map of India
Source: www.freeworldmaps.net

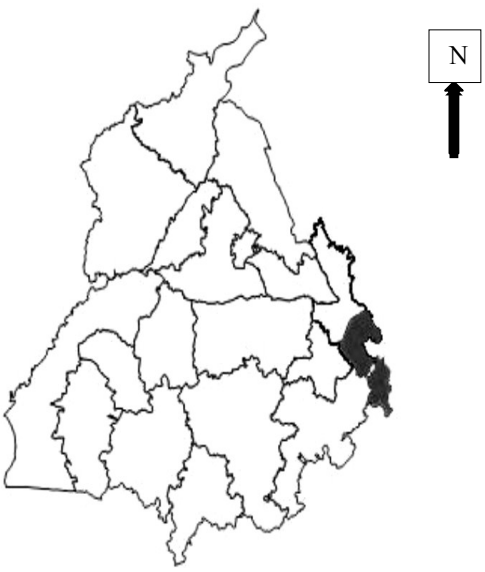

Figure 2: Map of Punjab
Source: https://www.cgwb.gov.in/old_website/District_Profile/Punjab/SAS%20Nagar.pdf

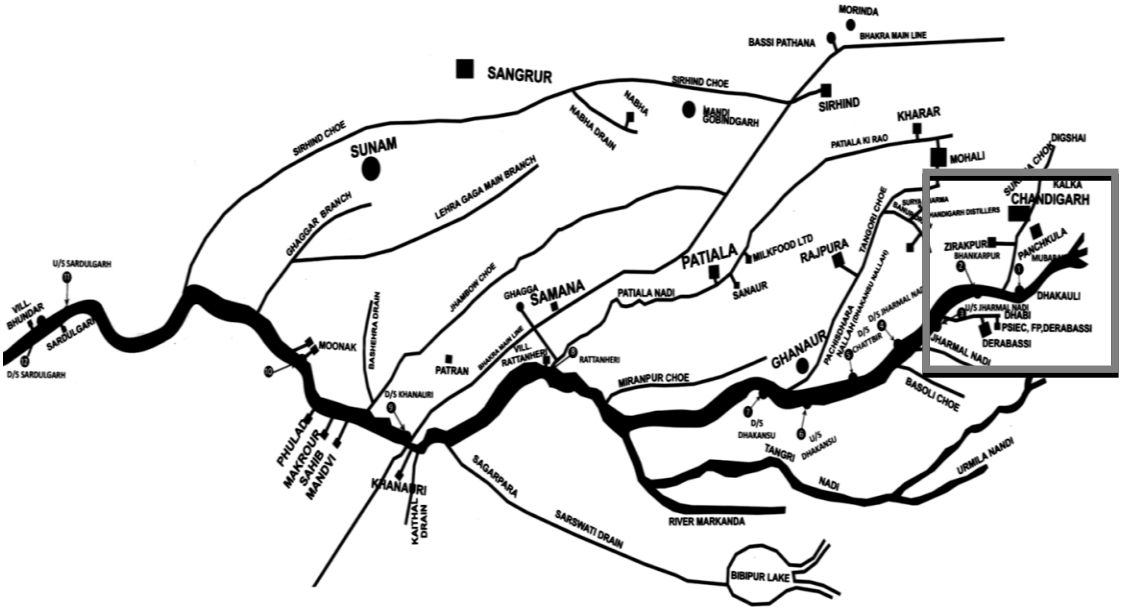

Figure 3: Ghaggar river basin with the highlighted region showing the study area
Source: Punjab Pollution Control Board

Ethnographic methods such as observation and in-depth interview were used to know about the local people's daily lives. Data were collected on oral tradition, tales from the past, and cultural practices connected to the river. In-depth interviews with key informants yielded insights into historical narratives, cultural beliefs, and traditional behaviours linked to the river. Focus group discussions examine shared perceptions and apprehensions about the quality of river water.

A total of sixty interviews were conducted. Purposive and snowball sampling techniques were utilized to identify participants, focusing on those who had resided near the river for over 20 years and were available for interviews. Participants aged 35 years and above were selected to ensure a diverse range of perspectives. Elders (aged 60 and above) were included for their ability to provide historical and cultural insights into the river, while middle-aged individuals (aged 35- 59 years) offered valuable information on socio-economic transitions and current river usage pattern. Community members who actively participated in religious ceremonies or festivals associated with the river were also interviewed. Additionally, women who were traditionally engaged with the river for tasks such as fetching water, washing clothes, or other household activities, and men who relied on the river for farming or related livelihoods, were included. This careful selection ensured the inclusion of knowledgeable individuals capable of providing in-depth and meaningful insights into the river's changing role in the community.

Interviews were conducted with different stakeholders, including, the Aanganwadi supervisor, village elders, healthcare professionals, farmers, community leaders, primary school teachers, ASHA workers. The in-depth interviews, spanning around two to three hours each, elaborated on viewpoints of river utilisation based on participants' actual experiences. Personal interviews conducted with the help of a schedule cover demographic details, questions on historical and cultural significance of the river, current usage and dependency, pollution sources, environmental and health concerns, community involvement, river attachment, future aspirations. Eight focus group discussions among 6-10 members were held with individuals representing farmers, elders, community leaders like Panch members, ex-Sarpanch, mid-day meal workers, Aanganwadi workers, house-wives. FGDs were conducted broadly on the themes of river use in the past, experiences, rituals, or traditions associated with the river, and changes over the years in terms of its present appearance, flow, and role in the community.

Findings of the Study

The following section outlines the main findings of the research based on thematic analysis of responses obtained from the interviews and focus group discussions.

Recollections of the River

Shared experiences form the collective memories that bind people together and remain alive through group interactions and reminiscences via cultural activities and performances. There is an intertwined relationship between social memories and place

identity. River plays a role in shaping the emotional base of collective expressions-turned-memories of a riparian community.

In the ever-evolving tapestry of human experience, the stories of the elders hold a profound and timeless significance. As they reminisce about their past, a window is opened into a world that has long since passed, one where the rhythms of daily life were intricately woven around the presence of a river. During the interviews with the villagers, elders often recounted tales of their youth, when the river was a constant companion, a source of sustenance, and a canvas upon which the ebb and flow of their lives was etched. They spoke with a sense of tranquillity about observing the gentle currents, recalling with excitement the times replete with a profound sense of community participation that thronged the riverbanks during celebratory gatherings. In the words of respondents,

Mr. A (47)- ik_mann'ta_hai_apni_Parampara_ae…chaldi_a_ ri_hai…

Apne_Puadh_area_mein_khwaja_maantehai

Ghaggar_pe_jayenge… mattha_tekde_ne_paani_di_dhara_nu

Pind_ma_sukh-shanti_rawe…pind_di_rakhi_karda_ae…

(In our Puadh region, it has been a long-standing tradition to revere 'Khwaja Ji' (referring to Ghaggar as the Water God). Since time immemorial, we have been showing our devotion to the Ghaggar River, visiting it, bowing before it, and seeking its blessings. This practice symbolizes our prayers for peace, harmony, and protection of our village.)

Mr. B (62)- Pehlan_pura_paani_tha…saaf_paani_tha...

Rupiya_ger_dyo…saaf_chamk_ kara_tha…

Macchi_khud_dekhi_thi_hamne…raat_nu_sab_kujh_dikhe_tha…

(In the past, the Ghaggar River had a strong and clean flow. When coins were tossed into the water, they could clearly be seen resting at the bottom. The sight of fishes swimming in the water added to common delight. Even at night, water's clarity provided excellent visibility.)

Mr. C (67) and Mr. D (45)- Aapan_bhi_nhawan_the…Humara_ swimming_pool_yahi_tha

hume_aap_pee_lein_the_unjla_gel…

Jede_dangar_the_o_vi_peewan_the…

Kheton_mein_dene_ke_liye_istemaal_hoye_ kara_tha…

(We used to bathe in the Ghaggar River; it was our natural swimming pool. We drank its water cupped in our hands. Our cattle quenched their thirst from the river, and its water nourished our fields, sustaining both life and livelihood.)

Ms. E (35)- jandi_si_chote_hunde_Ghaggar_ma_veer_ji_de_naal…

Saaf_hi_si_paani_tan…khed_de_hunde_si…

(When I was a child, I used to visit the banks of the Ghaggar River with my elder brother. The water was clean, and we spent our time playing by the river side, creating cherished memories.)

These memories, vibrant with sights, sounds, and emotions of a bygone era, serve as a powerful testament to the deep-rooted connection between the people and the place adorned with a river. On being asked about how has this connection been damaged, the respondents' replies shed light on the complex tapestry of human experience to comprehend the profound connections existing between people, place, and the natural world. Elders have recounted how the once-pristine water of the river have become misty and discoloured, causing the abundant fish population to decline. This has disrupted the rhythms of daily life and the cultural traditions that were intrinsically tied to the river. As the villagers witness the degradation of the riverine ecosystem, they feel a deep sense of loss and concern for the future generations who may not experience the same profound connection to this vital resource. However important this connection may be to the elders, to the young people it holds little meaning. That there is a generation gap cannot just be wished away.

Factors Responsible for the River Pollution

According to the majority of respondents, the following are the primary factors that contribute to pollution of the river:

Municipal waste: The Shivalik foothills, primarily the catchment area for the main river and its tributaries, are confronted with increasing risks from sewage pollution. Until four decades ago, the Ghaggar River served as the vital artery for the villages situated along its course. The continuous discharge of sewage effluent suffocated its vitality, reducing it to a mere drain.

Mr. C (67)- Talle_jari_sari_sewerage'an_Zirakpur_ka_yo_sara_Hallomajre_tak Dayalpura_sara_Ghaggar_ma_gir_raya_talle…

(All the sewage pipes from Zirakpur, Hallomajra, and Dayalpura drain directly into the Ghaggar River downstream.)

Unplanned urbanisation: The study area is situated in the vicinity of the towns of Baltana, Zirakpur and Panchkula. Rapid acquisition of land for housing development has led to the narrowing of the river basin. Waste materials caused by unchecked construction and demolition have also been contributing to the pollution load in the river water. No doubt, encroachment has inflicted considerable harm on the Ghaggar and its tributaries.

Mrs. F (68)- Kakrali_to_paran_ palace_khulge_28 sector_bann_gaya…

(Wedding halls have been constructed, and Sector 28 has been developed near Kakrali village.)

Mr. G (76) - jadd_ae_Chandigarh_baseya_Panjhkula_baseya…odon_latrine_da_paani_Ghaggar_ma_aa_gya…sara_sewerage_Ghaggar_ch, ae_Manimajra, Industrial area, Baltana…aina_da_sara_ganda_paani…Sukhna_choe_da_vi_isi_ma…

(Since the development of Chandigarh and Panchkula, their sewage effluent has been discharged directly into the Ghaggar River. The wastewater from Manimajra, the industrial area, and Baltana

also flows into the river through various drains. Additionally, all the wastewater, including the outflow from Sukhna Choe, are emptied into the Ghaggar.)

Linear infrastructure intrusion: Linear infrastructure, such as roads, railways, and pipelines, often poses significant challenges to riverside villages. These projects fragment ecosystems, disrupt natural water flow, and encroach on agricultural land. Additionally, they increase diverse human activities causing pollution of rivers and localities nearby, thus straining the already fragile ecosystems further.

Mrs. H (68)- Jad_da_ae_highway_baneya, aithe_aawa-jahi_badhgi,

Log_pull_ke_upar_te_hi_ger_de_hai_paani_ma, traffic_zada_hogya

Shehar_bas_ge_nede… ar_hum_dur_hoge…

(Since the construction of the highway, traffic in the area has increased significantly. People frequently throw garbage from the bridge into the stream, polluting it further. With the nearby township development, we have been increasingly distanced from nature.)

Industrialisation: Derabassi region has an area demarcated for large-scale industrial activities as displayed on the signboards also. The development of industries within the proximity of river adds to the loads of waste in the stream either directly or through drains as told by the participants:

Mr. B (62) and Mr. A (47)-
Sharab'an_di_factory_laggi_hoi_aa_panja_killeya_ma

Baddi_Chemical_di_factory'an, _oda_vi_aa_raya_ae

Aaj_tak_sabse_ganda_paani_jo_aaya_hai_wo_PCPL_chemical_factory_da aaya

Crasher'an_da_paani_vi_aa_reya_ae

Baarish _padi_aa_kaal…chodh_diya_hoga_ke_pata_ni_lagega

to_chodh_ de_ha_factory'an_paani…

(A liquor factory has been established on a 50 acre land nearby, adding to the environmental strain. Chemical factories from the Baddi region also contribute to the waste to the river. The most severe pollution to date came from the PCPL (Punjab Chemical Private Limited) chemical factory. Additionally, nearby stone crushers drain their wastewater into the stream. After yesterday's rain, industrial operators took advantage of the downpour to release their wastewater, disguising it as rainwater runoff to avoid detection.)

Mrs. H (68)- *ure_bohot_chheti_paani_kharab_hoya,*
patani_toh_ure_factory'an_bohot_jada_laggi…

Wahan_te_etta'an_de_bhatthe, bajri_de_crasher_hoge_o_cheej'an_aa_zada…

(The water quality here has deteriorated rapidly, though I'm unsure if it's solely due to the rapid industrial development. The area is dotted with numerous brick kilns and stone crushers, which may also contribute to the environmental degradation.)

Religious offerings: Idol immersions during festivals have also contributed to silent killing of the river by the addition of Plaster of Paris (POP) and other chemicals into the water. When migrant populations from other states come and perform Chhath Pooja, Ganesh Chaturthi, and Durga Pooja, the situation gets worse.

Mr. I (55) and Ms. E(35)- Jonsa_koi_matha-muthatekde_ne…

aad-kabad_sab_kuch_vicha_ae_baha_de_hai…

Chhath_puja_ne_dekhyo_kinna_bura_haal_hunda_ae, gand_faila_re_ne

Pavitra_samaj_ke_gherte_hai…rehe_to_ganda_ae_yo_Paani_barbaad_hi_ohna_ne_kara_pandta_ne…insaan_ko_chakkar_ma_pa_de_hai

(People who worship the river often dispose of ceremonial items into its waters, believing it to be a part of the sacred act. During the Chhath Puja festival, their activities exacerbate the situation. The practice has its contribution towards the river's degradation. Priests, by promoting such superstitious activities, have unintentionally added to the pollution load in the river.)

Migrants' interference: Transient populations tend to show a lack of concern with the welfare of the surrounding area. Migrant workers, with no stake or without any significant investment in the river's long-term health, exacerbate pollution through improper waste disposal or indulge in other environmentally detrimental behaviours.

Mrs. H (68)- Itni_gandgi_khanda_di_bahar_ke_UP-Bihar_ke_ne_aake_yahan…

Plastic_ke_jhole_hi_gher_de_aa_paani_ma…

(Migrant labourers from Uttar Pradesh and Bihar have significantly contributed to littering the area, often discarding their waste in plastic bags directly into the stream.)

Illegal sand mining: Residents of Kakrali village confirm that sand miners carry out their illegal operations at night, extracting sand till the early morning hours.

Mr. B (62)- Ibb_fer_khodan_lag_ge_thalle…tipper_chal_rya…

Chidiya_Ghar_pe_te_sau_gaddi_din-raat_chal_ryi...

panj-char_machina_roj_ja_rayian…

(They are excavating deep into the Ghaggar River, with tippers operating extensively in the area. Numerous vehicles ply the roads day and night, especially from the Chhatbir Zoo side. Four to five heavy machines move back and forth daily, intensifying the activity.)

As reported by the villagers, tipper trucks are employed to transport sand and stones, and the villagers generally avoid going to the area which has been dominated by the mining mafia.

Mr. C (67)- Do_saal_hoge_banjar_bana_di…

Ghaggar_patt_diya_sara_pacchi-pacchi_foot…mhare_choye_talle_gaye…

(Over the past two years, the land has been reduced to a wasteland. The Ghaggar River has been dug up to a depth of 25 feet, causing a significant decline in the water level.)

Mr. J (40) and Mr. A (47)- Ghaggar_ka_ to_business_bana_liya_logo_ne…
Reta_patt_liya.... Pichle_panjh_saal_dab_ke_mining_hoi_aa…
Crore'on_rupaye_ka _retta_gaya_ae…

(The Ghaggar River has been transformed into a business venture, with rampant sand mining engulfing the area for the past five years. Sand, worth crores of rupees, has been extracted, turning the river into a hub of illegitimate enterprises.)

Village sullage: Villages are devoid of adequate drainage system. Sullage is discharged through *'naalis*' (narrow drains), pouring directly into the river stream. A limited number of respondents have tried to articulate their own perspectives by fixing responsibilities that are not performed:

Mr. J (40)- Gaon_ka_paani_bhi_Ghaggar_mein_jara_hai_sewage ka…

Kaun_bolega_gaon_ka_hi_to_paani_hai…

(The sullage from the village is also discharged into the stream. However, no one speaks up, as it is seen as a simple way of disposal of the village's waste.)

Mrs. K (64)- Kakrali_da_vich_gir_reya_ae, Camp_da_vi, humare_pind_ka_vi

(Wastewater from Kakrali village, Mubarikpur Camp, and our own Bhankarpur village is discharged directly into the stream.)

The villagers do not raise their voice against these violations, suggesting that they are either too meek to do that or find nothing in them to protest against.

Transformation of the Riverine Landscape

The presence of river, that is, Ghaggar, is becoming less visible in the lives of the people residing nearby. The river has actually been separated from the life of the villagers as a result of the multi-directional growth in population, the industrialisation of the towns that are located near the river, and the increased human activities that have taken place on the landscape. Taking into consideration the actuality that the river no longer constitutes the primary source of drinkable water or for performing household chores, an attempt may be made to draw some inferences.

In this particular case, it may be possible to come across juxtaposition of two realities that are extremely different from one another but both make their presence in the same landscape, which, when taken together, take the form of a new "fable." But the plain truth that the river has become silted, narrowed, and degraded in terms of its original properties is vivid enough, which is a geographical or physical reality.

As told by one of the respondents, *Mrs. H (68),*

O_Ghaggar_ibb_nahi_reha_ae…Hun_tan_bacchyean_ne_kulan_da_pata_ni_hai…

Jinna_hun_Ghaggar_reh_gaya… aine_bade_tan_kull_hoye_karan_the...

(The old Ghaggar River no longer exists as it once did. Today's children are unaware of the traditional '*kuls*' (water drains). The Ghaggar that remains now is almost equivalent to just one '*kul*' of earlier times.)

Mr. A (47)- Khod-Khod_ke_itna_dunga_ho_gaya_Ghagagr…

(The Ghaggar River has been dug out excessively and it is narrowed to a considerable extent.)

The second aspect is that constructions around the river have increased covering a wide area, and as this happens, the earlier "perception" of the people residing nearby about the landscape surrounding the river has changed. While recalling the changes taking place in the area, one participant said,

Mr. B (62)- Mere_khyal_tan_pacchi-teeh_saal_tan_ho_rye_aa…

Jis_tem_mukhyamantri_Beant_Singh_tha… uss_tem_laggi_aa_factorian…

(As I see it, these changes have come to light during the last 25 to 30 years. The shift began during the tenure of Beant Singh as Chief Minister, when industrial development in the region took off.)

Mr. C (46)- factory_aagi_shehar_aage_aale-dawale…

Pehle_Ghaggar_tha_ek_ab_toh_naala_ban_gya…

(Factories have sprung up, and towns and cities have made their appearance nearby. What was once the river Ghaggar has now been reduced to a mere drain.)

(Mr. D (46) commented, the very purpose of the Kaushalya Dam, built by Haryana at Pinjore, to store what is supposed to be clean water of the river, could not be materialised because waste water from factories is discharged into it. What was once beneficial to us has now become a source of waste.)

The conjunction of these two factors has resulted in the "imagined" reality or a "fable" indicating little transformation of the river with the scope of retention of its former glory, while in the 'experienced' reality there has been an increasing realization of the fact that the landscape has undergone a significant transformation for the worse.

Another potential reason that may be contributing to the declining interest of the locals is the widespread destruction of flora along the riverbanks. They recalled that when they were younger, there were a good number of trees growing along the banks of the river. As the whole region becomes more and more urbanized, the vegetation is cut down to make the land available for the construction of the highway and under-construction high rise buildings. One of the respondents pondered over the guava orchards that used to grow on the land.

Mrs. H (68)- Ghaggar_de_lag-lag_darkhat_khade_hoye_kar_de_jis_taran_Dek_Neemb_Safedaa_khadeya ….

(The banks of the Ghaggar River were once lined with trees such as Dek (*Melia azedarach),* Neem (*Azadirachta indica*), and Safeda (*Eucalyptus hybrida*), among others.)

Another respondent *Mr. B (62)* said,

Andhera_miche_kara_tha_darkhatan_da…bagh_howein_the…

Amb_howein_the…jammna_howe_thi…ibb_koye_pedda_bhi_ni_hai…

(The dense canopies of the trees used to cast deep, cooling shadows along the riverbanks. There were orchards of mango and black plum, but now there is hardly anything of that left.)

The uprooting of a forest or vegetation cover results in a loss that extends beyond the mere number of trees felled; it also entails the obliteration of the ecosystem reliant on and nourished by that vegetation. While explaining the current situation of the river, a respondent Mr. D (46) commented during one of the focus group discussions,

Jo_ajj-kal_Ghaggar_hai…o_sewerage_ka_hi_to_paani_hai…

Ghaggar_ka_paani_to_reha_ni…

(The Ghaggar River today is nothing more than a canal of sewage water. It no longer has its own natural flow.)

Understanding the Growing Apathy towards the Ephemeral River

By exploring this disconnecting link further, the researchers have tried to seek the answer of a critical question: why is there a lack of urgency among the riparian community despite being directly impacted and despite being aware about the sorry plight of the river? The responses provided by the respondents are analysed cutting across several dimensions of the problem:

Disrupted sense of place

A "sense of place" is cultivated through positive interactions and shared experiences in a specific location. In the present case, pollution disrupts this attachment by eroding the aesthetic, recreational, and cultural values attributed to the river. River creates shared spaces for recreation, festivities, and social engagement. It also creates a cultural mosaic or a realm of 'heritagescape' wherein traditional festivities as well as performances take place (Singh, 2017). These spatial practices affect the intangible values of 'place attachment'—the emotional characteristics of connection to a location, which are accompanied by cognition (thinking, knowledge, and belief) and practice (activity and behaviour) (Low and Altman, 1992).

The Ghaggar River, which was claimed to be formerly pure and regularly used during cultural occasions, has been substantially contaminated in recent years. It is now difficult for anyone to stay near the river, much less use the water for drinking or even for irrigation purposes. The significance of a rural tradition is waning, mainly because the

younger generation lacks a relationship carrying a sense of identity with the river; they also find practically no utility of the river water. The interviewed older generation people, who had the experience of living along the riverbanks, did not completely give up the idea of protecting the river and its water. They valued river water highly and held ceremonies in honour of the river and prayed to it. However, with the onset of industrialisation and agricultural expansion, people have shown little interest in preserving their past. Now the cultural performances and ceremonies have been reduced to nominal events. The river in its present appearance is without any truly significant character that it had earlier. There has been a sharp decline in the traditional river-use pattern. The river's degradation diminishes its role as a focal point for community gatherings. Some of the opinions of the respondents about the issues are given below:

Mrs. H (68)- O_mahol_us_tem_bohot_change_lagge_karein_the…
hun_te_kujh_vi_ni_haiga… o_na_rounkan_na_o_gall_na_o_salah...

na_o_battan_rayii…mehsoos_tan_bohot_howe…

(We cherished the environment and spirit of the old days. Now, those pastimes are lost—gone are the splendour, vibrant conversations, and meaningful discussions that once reverberated the atmosphere. We deeply feel the void they have left behind.)

Mr. D (45)- Pehlan_ik_time_aisa_tha_ke_pujte_the_hum_isko

Ab_ye_nasur_ban_gaya_hai_humare_liye

(There was a time when we revered this river, worshiping it with devotion. Now, it has become a source of sorrow for us.)

There is a growing generational disconnect as younger villagers have practically no first-hand positive experience in the form of a close interaction with the river.

Mr. A (47)- Baache_toh_jayenge_hi_ni_na… nahane_bhi_nhi_jayenge…

Hum_jaane_ni_denge…hum_paani_ni_peene_dete_uska_jana_to_kahan_hai…

(Kids don't go there at all, not even for bathing, and we certainly don't allow them to be near the riverbanks. Drinking from the river is completely out of bounds.)

Another participant emphasized on the lack of interest her younger family members have in the river, stating,

Mrs. H (68)- Bacche_ni_jande_aan_mare_dus-dus_saal…

inna_nu_vi_dikha_key_lyawein kadi-kadi_iske_dada_ji…

bahu'aan_ni_jandiya_ne…ae_vi_kadi-kadi_dekhan_jawein

(My kids haven't been to the river for years. Their grandfather sometimes takes them along when he goes to visit the agricultural fields nearby. Even my daughters-in-law rarely go there; they only visit occasionally to have a quick look at it.)

A few responses highlighted the separation that has disrupted the natural rhythm and interconnectedness, once existed between the cattle and their water source. As the river becomes increasingly polluted, the cattle have been forced to seek alternative sources, leaving behind the familiar riverbanks that were once an integral part of their lives.

Mr. A (47)-
Jaise_insan_hai_vaise_hi_jaanwar_hai…Dangro_ko_bhi_ni_le_ke_jaate…

Paani_vaaste_nahon_layi_ja_khule_ch_charan_layi…maja_ni_aata_na_woh…

(The situation is similar both for us and for our cattle. We no longer take them to the river to drink water, bathe, or graze on the green patches nearby because the exercise is no longer safe or enjoyable for them.)

Veterinary Doctor, Mr. Q (47)- Dangar_bhi_pinjre_ma_hoge…phlan_te_itni_jadi-bootiyan_aale_pede_khan_nu_milde_si_bahar…Par_hun_te_ghare_aa_sara-kuj…

(Even the cattle are now confined. There was a time when they roamed freely along the riverbanks, grazing on a land riddled with a variety of herbs and shrubs. Now, they are almost confined to their sheds.)

There is a sense of alienation caused by health concerns or unpleasant conditions (e.g., foul smells, contamination). The absence of government and industrial accountability foster feelings of neglect and loss of voice. Locals feel powerless, leading to emotional detachment.

A Sense of helplessness

Villagers feel powerless to address the problematic issues due to the inter-play of complex factors causing pollution. The power imbalance that exists between rural people and the decision-makers who are responsible for managing these resources is a factor that further exacerbates the problem of river pollution. While talking about the problem faced in tackling the issue of illegal sand mining, a participant Mr. L (68) responded in one of the focus-group discussions,

Mein_khilaf_bolya…thane_ma_pahunchaya_mainu _Ghaggar _khodne_picche...

raat-ae-raat_patt _ke_pahunchta_i_crasher'an_pee...

pata_ae_ni_lagya_hai… ae_chor-bajariyan_ne…

(When I spoke out against the digging and mining of the Ghaggar, I was taken to the police station. The sand that was mined was transported to the crushers overnight, with no one noticing. This is nothing less than organized theft.)

To add to this, another participant Mr. I (55) lamented,

Je_tuss_is_acchai_dekhan_bhejoge…

Tuhadi_ainna_ne_sunwai_ni_karni…agge_ni_bhejni_report…

(If you attempt to reveal the truth, your voice is likely to go unheard. The issue will either remain unreported or any report made will fail to progress.)

On asking how to clean the river, one of the participants (48, M) said,

*Ghaggar_tan_natural_hai**..** *ainu_thodi_saaf_kar_sakde*

(The Ghaggar River is a natural entity, and restoring its purity falls beyond our capability.)

To add to this, *GurudwaraPradhan*, Mr. M (75) said,

Bas_rabb_ae_safaya_karega…hor_ni_ho_sakda_kuj…

Na_court'an_ch_insaf_na_Sarkar_kol_insaf…

Raula_paoge_tan_police_aalya_ne_dande_marne_case_bana_dena…

(Only the Gods can cleanse it now; nothing else seems possible. There is no relief or justice to be expected in the courts or from the government. If you raise your voice, you risk being beaten by the police and be falsely implicated in fabricated cases.)

In the absence of effective technology to clean the river in these areas, people are almost resigned to the belief that restoring the river to its original purity is impossible. This sense of hopelessness often leads to further neglect, resulting in even more pollution.

Impact on the social fabric

Social capital is built through shared activities and a collective vision for sustainability. Due to the industrial development, a lot of migrant labourers have been working in the area. Local community members highlighted the lack of civic sense among outsiders causing harm to the river's condition; their roles only aggravate the worsening condition.

Mr. C (40)- Nuksan_ye hai_ki_bahar_se_aake_log_bass_ge...

Uska_aapsi_bhaichare_pe_farak_padta_hai…

(The loss lies in the fact that outsiders have settled here, which also impact our prevailing sense of brotherhood.)

On being asked how do they could experience this gap, he answered by saying,

Ab_jaise_ye_chhatth_puja_hogi…humein_pata_hi_ni_kya_hoti_hai…

Uss_din_yahan_mella_lag_jata_hai_gaon_ke_charon_taraf…

(During Chhath Puja, a festival unrelated to our tradition, a fair is held near the village by the side of Ghaggar River, which holds no significance for us.)

Of course, they do not deny their helping hand in getting the chores done. To this, another participant Mr. A (47) said,

Labour_bhi_chahiye_uske_bina_kaam_bhi_ni_sarta…

*(*However, we have to rely on the support of these labourers; without their assistance, we cannot function effectively.)

Impact on agriculture

There is a perceptible presence of generational disconnect as younger villagers lack first-hand knowledge or experience about the river. Changing agricultural practices and economic development spree have reduced dependence on the river, leading to a decline in its perceived importance. With the introduction of technology into agricultural practices through tube wells, spread of farm chemicals, etc., there is less dependence on the river flow, the decline of which does not cause any immediate concern. This is further aggravated by the reduced importance of farming as the main occupation. One focus group discussion highlighted the issue:

Mr. N (65)- Kheti_te_khatam_ae_aa_thodi-thodi_zameen'an

Badde_zimidaar_bas_latak_re_aa_isi_tarah

Kujh_acquire_kar_li_Sarkar_ne_kujh_ne_vechi_hoi_aa

*(*Agriculture is declining as landholdings continue to shrink. While some large landowners manage to sustain their holdings, others have sold off their land or let it acquired by the government.)

Mr. O (72)- Kuchh_to_bahar_hi_chale_gaye…
aur_ure_reh_ke_marna_hai_unhone_sadd_ke…

Hum_toh_fass_gaye_is_life_mein…unko_thodi_fassne_denge_isme

Pota_kehnda_khetan_mein_jana… me keha_bilkul_ni_jana…

(Some have gone abroad, convinced there's little left for them here. We are resigned to this life, but we are determined not to let the next generation endure the same. My grandson often insists on going to the field, but I strongly forbid him.)

Focus on alternatives

The easy availability of alternatives for daily needs, like piped water for drinking and washing, overshadows the urgency of addressing the Ghaggar's water quality and related issues. The extension of piped water in settlements has partially reduced reliance on the Ghaggar. Respondents highlighted the comfort provided by the public tank installed in the village. People save piped water in house tanks as well, which further turns their attention away from the river water.

Mrs. K (72)-
Pehlan_tinda_aale_kuyein_luwaye_the_uste_baad_fer_bore_karaan_lag_ge…

Paudi_chadd_de_gaye_jyun-jyun_agge_vadd_de_rahe…

(In the past, we relied on water wells, which were later replaced by borewells. As times changed, we got adapted to the best available sources of water.)

Mr. Q (47 years), a veterinary doctor, said,

Pehle_jo_generation_thi_woh_dependent_thi,

Ab_di_generation_nu_ni_enna_farak_penda_options_bohot_ne

(The older generation people depended heavily on the river for their needs. In contrast, the new generation have numerous alternatives available to them; they need not have to depend on the river at all and therefore remain largely unconcerned about its present condition.)

Barriers to reconnection

Social and ecological factors influence community engagement with a place. In the present instance, there are systemic barriers preventing locals from reconnecting with the river: Industries' claims of "zero liquid discharge" and people's perceived inaction by those who are responsible for it might foster mistrust. Lack of community programs or resources for river restoration limits opportunities for re-engagement. A type of psychological distancing is discernible, which might be the result of a long-term helplessness or hopelessness coupled with perceived irreversibility of the damage caused to the river. The area's lack of infrastructure facilities is evident from the responses of the villagers:

Mr. A (47)- Pakad_lo_jadd_ko_Jahan-Jahan_tak_Ghaggar_vich_ger_rahe_paani_woh_na_gere_treatment_plant_lagayein…

Industry_nu_hidayat_ho_sakht_ki_paani_chaddna_ae_te_saaf_karke_chaddna_ae…

(Address the problem at its root. Ghaggar River must be freed from waste drains, and proper treatment plants should be established. Industries must be strictly warned against releasing untreated wastewater into the stream.)

The ex-Sarpanch, Mr. P (75) told that for the instalment of STP (Sewage Treatment Plant), he had received a message from the concerned government office,

Zamin_deyo_dedh_kill_o_lagan_giya_charkhadiyan_saaf_karan_aali

Kiski_chada_le_zamin_ure_zamin_chodde_aa_koi_koye_deke_ni_raazi…

Lagna_tha_jahan_Zamina_aa_Shamlat_ki_kabze_kare_hoye…

(The government requested for 1.5 acres of land to set up a treatment plant. However, no one was willing to give their land voluntarily. The proposed site was under common ownership, but it was encroached upon by the villagers.)

And there ended the matter.

Summing up

Water of the ephemeral river Ghaggar under study is highly contaminated in terms of its physical, chemical, and bacteriological qualities due to the influx of pollutants from various sources. The contamination or degradation of water quality can be attributed to the changes in the economy and land use pattern of the surrounding area. Industrial set-up and direct sewage disposal into the river are the major causative factors, augmented by the increased use of pesticides and other chemicals in the farms. The contamination poses

serious human health and environmental hazards, while reflecting on fundamental changes in the economy and land use of the surrounding areas. Industrial setups and unregulated drains exacerbate the problem, further polluting the river. Villages near the river have borne the brunt of its declining quality, suffering not only from environmental degradation but also from a profound erosion in cultural and emotional attachment to the river. This detachment is particularly evident among younger generations, who are increasingly disengaged from traditional river-based practices and intergenerational knowledge, driven as they are by modernization, urbanization, and socio-economic transformations. Participants recounted memories of childhood excursions, familial relationships, and leisure activities like bathing and playing by the riverbanks, which had helped developing a profound sense of attachment to the river-based locale. These narratives underscore the concept of rivers as "feeling places," where emotional and sensory experiences converge with ecological and cultural values – a process which has also been mentioned by Rodríguez-González et al., (2022). Decreased water quality and availability affect both natural functions and communities' capacity to interact meaningfully with the river. The disconnection was apparent in the narratives of participants who expressed sorrow over the deterioration of the river site they used to value. Degradation engenders a "value-action gap," when individuals articulate profound emotional ties to rivers, yet perceive themselves as helpless in averting their gradual deterioration. The depiction of "transparent, shallow floodwater illuminated by filtered light, along with the presence of fish and orchards" underscores the role of visual and sensory factors in enhancing the emotional allure of these ecosystems. Such encounters reinforce individuals' connections to rivers, fostering a sense of ownership and responsibility. The study underscores the river's diminishing role in cultural and recreational activities, which has also been discussed by Nagpal and Sinha (2009) asserting that river landscapes dominated by unplanned, fragmented mixed-use developments fail to create a cohesive identity and leads to the loss of the community's heritage and identity tied to the river. Similarly, the Aboabo River in Ghana and the Seti River in Nepal have experienced significant environmental degradation, disrupting historical and cultural ties with rivers (Bhandari, 2008; Danquah et al., 2011). Studies highlight the need to integrate cultural perspectives into restoration frameworks to address disconnection and foster long-term conservation, promoting inclusive and effective environmental management.

The case of Ghaggar River highlights the pressing need for restoration efforts that may balance ecological objectives with the lived experiences and cultural values of local communities. Modernization, pollution, and economic shifts have significantly altered the community's relationship with the river, diminishing its significance as a site of cultural and recreational importance. Evidence from this study suggests that younger generations, in particular, exhibit a growing detachment from the river, driven by the loss of traditional practices and the pursuit of alternative livelihoods. This detachment is symptomatic of a broader transition from dependency on the river to reliance on other

non-natural, technology-oriented resources, fuelled by the depletion of natural systems and socio-economic transformations of the region.

Restoration of the Ghaggar River must involve not only ecological interventions but also cultural rehabilitation. By embedding community and cultural perspectives into river management practices, restoration projects can foster renewed attachment to rivers, ensuring that they are preserved as vital ecological and cultural resources. This approach recognizes that sustainable restoration is not solely a scientific endeavour; it is deeply rooted in the social, cultural, and emotional dispositions of the communities involved. Traditional practices provide valuable insights into integrating spiritual and cultural values that could be of use in restoration frameworks, demonstrating how ecological health and cultural identity can be strengthened simultaneously (Fox et al., 2016). The UK's Don Catchment project could transform neglected urban rivers into community assets through green infrastructure and community engagement, promoting collective responsibility and sustainability in river restoration practices (Shaw et al., 2021).

The main objective of the study is to analyse the changing dynamics of the social landscape of the region and to assess how these changes are perceived by the villagers in relation to the riverine landscape and to explore what river means to the riparian community, what are the main issues and problems faced in managing river health. Like other rivers (Sepik River in Papua New Guinea and the Whanganui River in New Zealand) examined anthropologically, the Ghaggar river has evolved from a source of subsistence and an epitome of a cohesive culture to a locus of environmental and social conflict (Salmond, 2014; Wagner, 2013). These disturbances not only affect natural systems but also destroy the emotional and culturally significant connections that communities formerly had with the river. By incorporating cultural values and community engagement into the conservation framework, policymakers can support initiatives that may reconnect people with rivers and enhance the resilience of riverine ecosystem. This approach emphasizes the importance of nurturing physical and emotional ties to rivers, ensuring that communities are empowered to act as guardians of these vital resources. In the case of the Ghaggar River, it means addressing both the environmental and socio-cultural dimensions of the restoration process so as to create a future where the river is not only ecologically healthy but also deeply integrated into the lives and identities of the people who depend on it. Through these efforts, the river can once again serve as a source of inspiration, identity booster, and collective heritage, sustaining both the ecosystem and the community's sense of attachment to the place for generations to come.

Conclusion

The primary cause of deteriorating condition of the Ghaggar river is the lack of requisite infrastructure in its catchment area for the treatment of sewage and solid waste, in addition to other factors such as the discharge of treated, partially treated, or unprocessed waste and industrial effluents. This research examines the "broken bond," emphasising the elements that contribute to the growing apathy among the riparian communities

towards the river. There has been an erosion of cultural significance of the river because of urbanisation and alternative sources of water, which have diminished the traditional reverence for the river, severing in the process the cultural bond that existed between the river and people living in close proximity with it. This anthropological exploration of the intermittent river signifies one of the initial endeavours to acknowledge, prioritise, and integrate the social and cultural significance of river flow in conjunction with environmental continuity in its original form. The objective of this incorporation is to enhance water management and governance by establishing links with the riparian community, fulfilling the spiritual and religious functions, and safeguarding community rights and welfare in alignment with global human rights norms. However, this barely scratches the surface of the myriad relationships that exist between humans and rivers, as well as the opportunities that exist for incorporating these relationships into environmentally sustained flows. Further investigation into the river flow, its values and dependencies that are yet to be fully known or remain under-recognised, is something that the researchers strongly advocate.

References

Alam, K. 2011. Public attitudes toward restoration of impaired river ecosystems: Does residents' attachment to place matter? *Urban Ecosystems*. 14:635–653. https://doi.org/10.1007/s11252-011-0176-5.

Alley, K. D. 1994. Ganga and gandagi: Interpretations of pollution and waste in Benaras. *Ethnology.* 33 (2):127-146.

Bakker, K. J. 2003. A political ecology of water privatization. *Studies in Political Economy*. 70 (1): 35–58. https://doi.org/10.1080/07078552.2003.11827129.

Ballestero, A. 2019. The anthropology of water. Annual Review of Anthropology 48(1): 405–21.

Basso, K. H. 1996. Wisdom Sits in Places: Notes on a Western Apache landscape. In: *Senses of place*, ed. by S. Feld and K. H. Basso, pp. 53-90. Santa Fe: School of American Research Press.

Bhandari, A. K. 2008. Pollution of Seti River in Pokhara: An anthropological perspective. *Himalayan Journal of Sociology and Anthropology*. 3:11–15.

Danquah, L., K. Abass, and A. A.Nikoi 2011. Anthropogenic pollution of inland waters: The case of the Aboabo River in Kumasi, Ghana. *Journal of Sustainable Development*. 4(6): 103–115. https://doi.org/10.5539/jsd.v4n6p103.

Féaux de la Croix, and Jeanne 2011. Moving metaphors we live by: Water and flow in the social sciences and around hydroelectric dams in Kyrgyzstan. *Central Asian Survey.* 30 (3-4): 487–502. https://doi.org/10.1080/02634937.2011.614097.

Feld, S., and K.H. Basso 1996. Sense of Place. Santa Fe: School of American Research Press.

Firdaus, R. M., M. H Rasidi, and I. Said 2021. Components of river sustainability through community's experiences in riverside neighbourhood. *Planning Malaysia*. 19(1):77–88.

Fox, C. A., F. J. Magilligan, and C. S. Sneddon 2016. "You kill the dam, you are killing a part of me": Dam removal and the environmental politics of river restoration. *Geoforum*. 70:93–104.

Harper, K. M. 2005. 'Wild capitalism' and 'ecocolonialism': A tale of two rivers.*American Anthropologist.* 107 (2):221-233.

Hastrup, K., and Frida Hastrup 2016. *Waterworlds: Anthropology in Fluid Environments*. Oxford:Berghahn.

Kohn, Eduardo 2013. *How Forests Think: Toward an Anthropology beyond the Human. Berkeley,* CA: University of California Press.

Krause, Franz 2010. *Thinking Like a River: An Anthropology of Water and its Uses along the Kemi River, Northern Finland*. Bielefeld: transcript Verlag.

Larson, K. L., and M. V. Santelmann 2007. An analysis of the relationship between residents' proximity to water and attitudes about resource protection. *The Professional Geographer*. 59(3):316–333. https://doi.org/10.1111/j.1467-9272.2007.00615.x

Low, S. M., and I. Altman 1992. Place attachment: A conceptual inquiry. In *PlaceAttachment*, ed. by I. Altman and S. M. Low, pp. 1-12. New York: Plenum Press.

Nagpal, S., and A. Sinha 2009. The Gomti Riverfront in Lucknow, India: Revitalization of a cultural heritage landscape. *Journal of Urban Design*. 14(4):489–506.

Orlove, B., and S. C. Caton 2010. Water sustainability: Anthropological approaches and prospects. *Annual Review of Anthropology.* 21(39):401–415. https://doi.org/10.1146/annurev.anthro.012809.105045.

Pinto, U., and B. L. Maheshwari 2016. Community perspectives on managing health of peri-urban river systems: Evidence from the Hawkesbury-Nepean river catchment, Australia. *Journal of Environmental Planning and Management*. 59(7):1257–1276.

Rai, S. P., K. V. Akpataku, J. Noble, A. Patel, and S. K. Joshi 2023. Hydrochemical evolution of groundwater in northwestern part of the Indo-Gangetic Basin, India: A geochemical and isotopic approach. *Geoscience Frontiers*, *14*(6).

Relph, E. 1976. *Place and Placelessness*. London: Pion.

Rodríguez-González, P. M., et al. (2022). Challenges for riparian vegetation management: Insights from global experts. *Frontiers in Environmental Science, 10, 801250.*

Rudestam, K. 2014. Loving water, resenting regulation: Sense of place and water management in the Willamette watershed. *Society and Natural Resources.* 27(1):20–35. https://doi.org/10.1080/08941920.2013.840020.

Salmond, A. 2014. Tears of Rangi: Water, power, and people in New Zealand. *HAU: Journal of Ethnographic Theory*. 4 (3): 285–309. https://doi.org/10.14318/hau4.3.017.

Shaw, E., D. Coldwell, A. Cox, and M. Duffy 2021. Urban rivers corridors in the Don Catchment, UK: From ignored, ignoble and industrial to green, seen, and celebrated. *Sustainability*. 13:7646. https://doi.org/10.3390/su13147646

Singh, Rana P.B. 2017. *Cosmic Order and Cultural Astronomy: Sacred Cities of India.* Cambridge Scholars Publishing.

Strang, V. 2005. Emotion (or life, the universe, everything). *The Australian Journal of Anthropology*. 16 (2):198-211.

Trentelman, C. K. 2009. Place attachment and community attachment: A primer grounded in the lived experience of a community sociologist. *Society and Natural Resources*. 22(3):191–210. https://doi.org/10.1080/08941920802191712.

Toussaint, S. 2008. Kimberly friction: Complex attachments to water-places in Northern Australia. *Oceania,* 78 (1):46-61.

Williams, B. 2001. A river runs through us. *American Anthropologist.* 103 (2):409-432.

Wagner, John Richard (ed.) 2013. *The Social Life of Water*. New York: Berghahn Books. https://doi.org/10.2307/j.ctt9qd1nk.

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