ENVIRONMENT AND CULTURE

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How he who has not known the mystery of the rivers of Bangladesh would really know Bangladesh?...at the tender shore of the Bay of Bengal meet the sea and the river. The river is women, the sea is man. They mate on the tip of the storm-caught waves; the soft, alluvial *Banga* is their child.¹

Nature's place in contemporary discourse of culture can be examined from two broad perspectives: one is wider civilizational complexes of mankind and the other is everyday cultural life in a given society. Attempts to connect a nation's cultural attainment to a particular environment have been made for a long time. An Arab scholar in the middle ages, for instance, noted that the people of northern Europe had been so affected by the extreme distance from the sun (i.e., cold climate) that they possessed no sense of humour, developed pale skin colour and 'mental blindness'. During the period of European dominance world wide, environment³ became an important part of the emerging discourse of knowledge and power. In the eighteenthcentury Europe, an urge for connecting racial category with environmental factors led to the emergence of the theory of 'climatic determinism'. This theory was popularized by the writings of a French intellectual, Montesquieu, who asserted that people in hot climate would feel both physical and mental matters more passionately than the inhabitants in the cold regions. He argued that the people in the former regions were restless and uncontrollable hence a strong despotic rule was more appropriate for them, whereas the people in the cold regions were temperamentally suited to a more democratic order.⁴ Climatic determinism was soon superseded by 'biological determinism' whose proponents, generally known as Social Darwinists, argued that Europeans of the nineteenth century had a dominant role over the non-European world because they were biologically superior, indicating a resonance of the belief in 'survival of the fittest' in the natural world. In the twentieth century, particularly in the post-WWII period, the intellectual practice of associating race with environment lost ground and a more dynamic interpretation of nature surfaced as exemplified in the theory of longue duree which traced the development of civilization and culture in long-term environmental trajectories.⁵

¹ Pramathanath Bishi, Chalan Bil (3rd edn, Kolkata, 1957, 1364 BS), pp.17-8.

² Said al-Andalusi, Kitab Tabaqat al-Uman, ed. L. Cheikho (Beirut: al-Matbaah al-Kathulikiyah, 1912), pp.8-9 quoted in P.K. Hitti, Islam and the West, p.166.

^{3 &#}x27;Environment', 'ecology' and 'nature'—these words are used interchangeably throughout the essay, if not otherwise specified.

⁴ Denis Richards, Modern Europe 1789-1945 (London: Longmans, Green and Co, 1950), p.6.

⁵ Fernand Braudel, Mediterranean and the Mediterranean world in the age of Philippe II.

In the case of intimate interaction between people's everyday cultural life and their natural environment, Ibn Khaldun was one of the earliest scholars who, through examining the cultural life of the Arab Bedouins, sought to find linkages between a particular lifestyle and the physical environment in which it flourished. In modern period, a subsidiary of Social Darwinism promoted the idea that human beings were members of the animal world and that human behaviour must be governed by biological drives and instincts. Thus warfare and violence were equated to 'aggressive instinct', mass behaviour to the 'herding instinct' or homemaking to the 'nesting instinct' and so on. In the early twentieth century, however, the biological discourse of culture was gradually replaced by psychological explanations. Behaviouralists denounced heredity or 'instinct' as sources of socio-cultural practices of human being, and argued that what people became was dictated by the events in their physical environment.

While nature's influence on both the broader civilizational and archaic cultural patterns has been appreciated, the vulnerability of nature itself has not been adequatly examined in the discourse of relationship between nature and culture; nature merely symbolized permanence that was supposed to be permeable through time and space. It is only very recently that the cultural-environmental discourse has been informed more by a sense of vulnerability of nature than by its perceived omnipotence. Current issues have emanated from a concern for a fast-degrading natural world whose existence is equated with that of human race itself. Thus, an overwhelming sense of vulnerability of mankind in the wake of environmental degradation has contributed to the emergence of varied, pluralist and microscopic study of relationship between nature and culture.⁶

In spite of the fact that the study of environment and culture has developed to a great extent over the past few decades, no significant research has been done in or about Bangladesh in this context. In the bulk of literature on the culture of Bangladesh major focus is on debates around the way Aryan and non-Aryan cultures, or Hindu, Muslim, and European cultures clashed or co-existed, ignoring or not adequately appreciating the physical atmosphere in which different cultures of the region emerged and were nourished. On the other hand, environmental studies have focused on the contemporary context of degradation with no substantial focus on broader historical or cultural context of environmental patterns and changes and on wider cultural connotation of the environment. A study of mutual relationship between the environment and culture of Bangladesh is important not because this theme has not been adequately explored in serious academic forums, but also because Bangladesh itself offers an intriguing context for examination of the subject. This chapter is an attempt to explore the varied patterns of relationship between the environment and culture in Bangladesh in particular and the Bengal Delta in general. The first section focuses on the environmental context of wider civilizational development that took place in the region from proto-historic time; the second section examines the intricate cultural ways in which the people of the region respond to their surrounding

⁶ For a theoretical discussion of relationship between environment and culture, see Kay Milton, Environmentalism and Cultural Theory: Exploring the Role of Anthropology in Environmental Discourse (London, New York: Routledge, 1996); Ramesh C Misra, Pierre R Dasen, Shanta Niraula, 'Ecology, language, and performance on spatial cognitive tasks', International Journal of Psychology, 2003, 38, 6, Dec, 366-383.

environment; the third and final section explores into the patterns of man's creative engagement with nature as reflected in artistic and literary modes of expressions.

Ecological settings and the scope of its influence on Bangladesh's culture and identity

Geological evidence suggests that most of the regions of the Bengal Basin remained under water during the Paleolithic period and perhaps because of that human settlement was made in the hilly regions and adjacent valleys. Evidence of antiquity of man in this region has been sought, therefore, not on the deltaic plain land, but in the older geological formations. It is possibly because of the lack of land formation in the plain land, substantial Pleistocene deposits containing Paleolithic tools, likely to be 10,000 to 15,000 years old, were found in the hilly regions in and around Bangladesh eg. Hills of Rangamati and Chittagong, Rajmahal Hills, Garo Hill tracts, Naga Hill tracts, Lalmai in Comilla and Feni Districts. Neolithic age in the region seems to have lasted from 3,000 BC to 1,500 BC and similarly Neolithic tools were found at Hilly regions of Sitakunda in Chittagong and Mainamati near Comilla. It is believed that the 'thinly forested laterite hills in eastern Bengal dotted with fertile valleys provided a congenial environment for Neolithic settlements.'8 As the Delta extended by sedimentation process, human settlement also gradually extended to plain land. It may be assumed that by the late Neolithic Age, a substantial landmass must have been formed which made it possible for settled life between 1000 BC and 300 BC when the ancient *janapadas* flourished with mature cultural and political organizations in place. In this context of ecologically induced process of land formation between the hills and the sea, it is not surprising that ethnically the majority of the people of Bangladesh have more affinity with the aboriginal peoples of the surrounding hills than with the people of other regions. 10 Malony has found that though majority of Bangladesh population show signs of genetic affinity with that of the West Bengal, such affinity are more remarkable if compared with tribal people living along the eastern border of Bangladesh including north Indian hilly states and north Burma. Malony suggests that these similarities 'accounted for either by gene flow within that region, or by shared common selective factors'11

⁷ D K Chakrabarti, Ancient Bangladesh. A Study of the Archaeological Sources (Dhaka: University Press Limited, 1992), pp. 177-8.

⁸ http://asnic.utexas.edu/asnic/countries/bangla/bangladeshm.html

⁹ The Bengal Delta owes its emergence and territorial expansion to the age-old process of deposition of sediment in the Bay of Bengal. Several South Asian natural phenomena have sustained this process. Between 1 and 6 million years ago, as the forces of mountain building waned, erosion levelled the topography down to the deep-level metamorphic rocks, generating a huge amount of sediment in the Himalayan ranges, which thus became a giant repository of sediment. A portion of this sediment regime has been brought down to the Bay of Bengal by two major rivers: the Ganges and the Brahmaputra. These rivers, jointly falling into the Bay of Bengal through the eastern Bengal territories along with their numerous branches, are reported to carry the highest proportion of sediment, amounting to about 25% of what is carried away by the rest of the world's rivers. It is estimated that some 40,000 million cubic feet of silt are deposited in the deltaic plain or thrown out to the sea every year in this process. At the same time, the ocean currents are also impeded by the heavy outflow from the rivers, and in turn 'drop down the burden of sand'. Thus a double process of land-making continues amidst the mutual confrontation of silt-laden rivers and the sand-carrying sea. See, W.W. Hunter, *Imperial Gazetteer of India* (vol. VI, 1885), pp. 24-8.

¹⁰ Maloney, 'Tribes of Bangladesh and synthesis of Bengali culture', in *Tribal cultures in Bangladesh*, ed., Mahmud Shah Qureshi (Rajshahi University: Institute of Bangladesh Studies, 1984), pp.33-35.

¹¹ Malony, *ibid.*, p. 50.

This fact is important for it reminds us of the possibility of Bangladesh's Southeast Asian cultural contacts through a host of migrants who had settled in the hilly strips as they followed the direction of land formations. This also denotes that pre-Aryan cultural development in Bangladesh was integral to the Southeast Asian monsoon cultural continuum. This possibility has been amply bolstered by recent researches. It is generally believed that the ancient stock of mankind which emerged in Africa dispersed first in the Middle East and then in Southeast Asia and Australia about 50,000 years ago. Those who traversed in Southeast Asia developed Austric languages and some of these Southeast Asian ethnic and linguistic groups assumed to have traversed in the Bengal Delta region. 12 In this context we find that 'the practice of growing rather than just hunting and picking' came to Bengal from Southeast Asia, which probably hosted the earliest cultivation practice in the world. Thailand is considered the place where cultivation was first invented and then spread to Bangladesh particularly via Burma. Malony observes, "Naturally, the people who cultivated their own food would be ecologically more efficient, culturally strong, more numerous, and more politically organized. This gave rise to Austroasiatic cultural and linguistic continuum, which stretched from the Pacific Ocean through Vietnam, Cambodia, Thailand, Burma, Bengal and into the Ganga plains and central India, and brought Munda language in India."

Thus from the point of view of pre-historic intra-Asian cultural exchanges, Bangladesh not only came under the sway of agrarian culture of Southeast Asia, it was also a 'shattered zone' which became a contact point between Southeast Asia and middle-Ganga region of India. The process of transmission of Southeast Asian Neolithic agro-cultural elements, such as wet-rice cultivation and Munda languages, to the middle-Ganga region via the Bengal Delta, seem to have taken place well before the West Asiatic Neolithic cultural elements reached there via northwestern India. In discussing the culture of Bangladesh, a reference to the early cultural development in the middle-Ganga region is important because by being a 'shattered zone' Bangladesh remained integral to Indian as well as Southeast Asian cultural diaspora in both proto-historical and early historical periods. Malony found the middle-Ganga region as a proto-historic site for resistance by Munda-speaking people against the invading Aryans. He even thought that the Munda-speaking people were, in fact, the Kauravas who, in the Mahabharata War, were said to have fought the Pandavas who represented western Indian culture. Malony also assumed that Brahmanical Hinduism was largely a product of the composite Indo-Aryan and Dravidian culture of the Indus region and western India, whereas original Buddhism, in reaction to it, represented more of the values of the middle and lower Ganga region.13

Bangladesh, therefore, appears to have played an important role in proto-historic period by absorbing Southeast Asian cultural influences, such as language, botanic and ritualistic traditions including birth practices, and then by transmitting them to middle-Ganga region. At the same time, we must also acknowledge that Bangladesh, because of its particular geographical location, again acted as a transit point when

Harun Er Rashid, 'Land and People', in A.F. Salahuddin Ahmed and B.M. Chowdhury ed., Bangladesh: 12 National Culture and Heritag (Dhaka: Independent University of Bangladesh, 2004), p. 12

For elaborate discussions of related issues see, Clarence Maloney, 'Tribes of Bangladesh', pp.5-51.

Buddhism from middle Ganga region spread in Southeast Asia at a later date. 14 If we are to accept Malony's suggestion that 'proto-historic cultural contact was from Southeast Asia...in historic times the contact was mainly to Southeast Asia with the diffusion of Indian civilization', then we must also accept Bangladesh's central place in both phases of these historic interactions. As Buddhism grew and expanded, its followers not only sought to propagate the religion but also, when occasion arose, to protest against Brahmanical restrictions on sea voyages for trade and commerce; but for Buddhists to flourish across the ocean needed a coastal outlet which Bangladesh was able to provide. Bangladesh came under the influence of Buddhism both as a region adjacent to the birth place of Buddha himself as well as a 'transit point' for the spread of Buddhism in Southeast Asia. Thus the Southeast Asian proto-historic contributions of Austro-Mongoloid monsoon rice civilization to lower and middle Ganga region were amply rewarded back by the Buddhist cultural contributions to Southeast Asia in the early historical period. 15 Being a 'cultural transit point', Bangladesh not only transmitted but also assimilated the cultural cross-currents between the Southeast Asian monsoon rice civilization and the middle-Gangetic Buddhist cultural traditions.

Recent discoveries in Wari-Bateshwar, two villages near Narsingdi District in the Meghna Valley, suggest that the region around Dhaka played a prominent role in the dissemination of Mauryan trade and Buddhism. The proximity of the region to the Meghna river that flowed to the nearby Bay of Bengal speaks of international maritime connection of the area, presumably with Southeast Asia and the Roman Empire. Professor Dilip K Chakrabarti suggests that Wari-Bateshwar could have been Ptolemy's Sounagoura which stood in rank and glory with other contemporary cities of Arikamedu (India), Mantai (Sri Lanka), Kion Thom (Tailand) and Oc-Eo (Vietnam) - each of these sites being the first urban centre in their respective regions. They were each major ports, all have been identified as emporia listed in Ptolemy's Geugraphia. 16 In the post-Mauryan period, the existence of about four hundred years of Buddhist rule in Bangladesh, including that of the Palas and the Devas, testify to the assumption that the Buddhist cultural tradition was firmly rooted in all sectors of the society and all these were due to the longing of the Buddhists to expand and disseminate the *dhamma* via the geographic routes that Bangladesh provided. ¹⁷ At the same time, during periods of insecurity and persecution in different phases of Indian history, Chittagong, protected as it is by rivers and hills on all sides, became one of the secure places for the retreating Buddhists.¹⁸

¹⁴ To support the hypothesis that Southeast Asian rice cultural practices went up to the middle Ganga via Bangla, it may be mentioned that the last diet of Buddha himself was fine rice rather than bread.

For a general discussion of commerce and culture of South Asia and Southeast Asia, see Kathleen D Morrison, 'Commerce and Culture in South Asia: Perspectives from Archaelogy and History', in *Annual Review of Anthropology*, vol. 26 (1997), 87-108; For reference to 'cultural transit' point, see Chakrabarti, pp.179-80.

¹⁶ MM Hoque and SS Mostafizur Rahman, 'Wari-Bateshwar', in Banglapedia.

¹⁷ For a detailed study of the society during the Pala rule, see Shahanara Hussain, Everyday life in the Pala Empire (Dacca: Asiatic Society of Pakistan, 1968); For a narrative of the Hindu-Buddhist rulers of southeastern Bangla, see A.M. Chowdhury, Dynastic History of Bengal (Dacca: Asiatic Society of Pakistan, 1964).

¹⁸ According to the Buddhist tradition prevailing in Chittagong the name Chittagong was derived from the word caityagram or cetiyagram meaning thereby a land of cetiyas or caityas i.e. Buddhist

An emphasis on Buddhist cultural tradition in ancient Bangladesh should not let one ignore the robust Hindu indigenous cultural development in the region. As is wellknown, Buddhism was probably never able to fully disengage itself from the traditional core of Hinduism. The subtle difference that remains in this regard is that while Buddhism offered a wider platform for Bengal's socio-cultural development encompassing cultural continuum of two monsoon agrarian frontiers, Hinduism offered stimulus to a more localized interaction between culture and nature. We will deal with these issues in the following sections, but to be more in tune with the theme of this section, we need to examine as to why Buddhism, rather than Hinduism, lost ground to the Muslims? If persecution by the Muslim rulers were to be held responsible, the mantle would have fallen equally on the Hindu community; but it did not. Some historians have argued that in the context of Sena Brahmanical persecution in the twelfth century, the Buddhists were waiting for an emancipator and they found it in the Islamic polity. Another group of scholars have focused on the internal decay of Buddhism as exemplified in Trantic deviation. From an ecological point of view, however, it may be noted that the maritime trade and commerce of the Buddhist era in Bangladesh met a relative decline during the time of the Sena rulers who were not, as Brahmanical scriptural traditions entailed, keen on sea-faring. In this context, it may not be too far-fledged to contend that Islamization in Bangladesh perhaps meant a rehabilitation of the seafaring Buddhists in the Muslim seafaring tradition. This assumption, however, is yet to be substantiated. In any case, with the arrival of the Muslims in Bangal frontier, the three major cultural streams- Hinduism, Buddhism and Islam, provided a solid and pluralistic cultural impetus to the region.

The culture that developed in the Bengal Delta thus represented assimilation as well as remarkable divergence of various streams, particularly between that of non-Aryan and Aryan. The aspects of divergence, however, appear to have been largely fashioned by the respective cultural group's perception of the ecological circumstances in the region. In other words, ecological variations within the greater Bengal Delta provided corresponding cultural variations. Since the Southeast Asian rice-based civilizational elements remained strongly embedded in Bengal, the Arvans failed to make any remarkable inroad in the cultural landscape of the region. It is in this context, cultural expressions, motifs and practices in Bangladesh are found to be still dominated by wet-land ecology. On the other hand, the failure of the Aryan dry agro-ecological and cultural elements kept sharply informing the mind of those who wanted to engage with this region out of political ambitions but with certain degree of difference. This is reflected in several Aryan texts which referred to the people of this region as inferior and untouchables who lived in 'jungles'. In the middle ages, Navadwipa (Nadia) played central role as the excellent seat of learning. Poet Brindabana Dasa (Born 1537) writes:

> Navadwiper sampatti ke borniber pare. Ek Ganga Ghate Lakha lok snan kore. (Who can describe the [intellectual] wealth of Nadia (Navadwipa) Millions of people alone take bath at a bathing ghat of Ganga)

temples where the image of Buddha is generally housed for worship by the laity. See, P.R. Barua, 'Buddhist Shrines and Monasteries in Chittagong', Abdul Karim Sahitya-Visarad Commemoration Volume, ed Muhammad Enamul Haq (Dacca: Asiatic Society of Bangladesh, 1972), p. 172.

Those who were close to or part of the intellectual or linguistic development that took place in medieval Navadwipa, however, sometimes considered themselves as superior in comparison to people of other regions within Bengal. A number of luminaries based in Navadwipa accordingly considered Eastern Bengal dialects and cultural traits as inferior to that practised in Navadwipa. In the later 16th century Kavikankan ridiculed the dialects of Eastern Bengal. Even Caitanya, who was born in Nadia in 1485, could not avoid the 'temptation of jeering at the people of the Eastern Bengal on account of their peculiar dialect¹⁹ But it is interesting to note that the linguistic sophistication and perceived intellectual excellence of Nadia in the middle ages was probably a result of its geographically suitable situation where three politico-cultural as well as dialectically important areas of Bengal, Varendra (Northern), Rarh (Western) and Vanga (Eastern), met and thus Nadia appeared to be 'eminently fit to be the common literary vehicle of the Bengali thought'. ²⁰ And in this process, River Ganga played central role in its capacity as the major provider of transport and communication. Such sense of 'otherness' on the part of the medieval intellectuals in Western Bengal was not only expressed in linguistic terms, but also on ethno-geographical consideration. In Manik Chandra Rajar Gaan, we find such lines as: Bhati Hoite Ailo Bangal Lamba Lamba dari [There comes the Bangal from tidal country and they have long beard!]. 21 At a much later date, Ghulam Hussain Salim commented that the deltaic Bangalis had 'shabby food taste, shabby cultural taste, shabby clothing taste.' It is not surprising that the British who came from a completely different environment would also find themselves alien to the environment of the region. British colonial perception of the environment in Bangladesh is nowhere so nicely depicted as in the following poem written with reference to a small town near Dhaka:22

> O Moonsheegunge, thou spot beloved Of paddy-bird and duck; Where all the land is water, And all the water's muck;

Where never, by remotest chance, A Sahib shows his nose; And where there's no society But that of Ram Nath Bose!

What have I done, relentless Fate, That thou shouldst stick me here, Remote from horses, dogs, and men, From all I hold so dear?

> As I sit in the verandah A-smoking my cheroot, I come to the conclusion I'm a miserable brute.

¹⁹ Md Shahidullah, 'A Brief History of the Bengali Language', Dhaka University Journal, (vol. VIII, April 1932), pp.97-100.

²⁰ *Ibid*

²¹ Nihar Ranjan Roy, Bangalir Itihasa, Adiparva.

²² C.S., and the title of the book is *Leaves from a diary in lower Bengal* (London: Macmillan and Co, 1896), p. 65.

There's Jones has gone to Shikarpore, There's Smith at Spinst'rabad, While I am left to linger here And probably go mad.

> To post a European here Is cruelty refined;— 'Tis rigorous imprisonment with solitude combined.

O may some future ruler In charity expunge Thy name from each gazettee and map, O slimmy Moonsheegunge!

The relative sense of otherness with respect to Bangladesh region that has been shown by the British, by Jawaharlal Nehru in the 1940s, Ayub Khan in the 1960s and by Salman Rushdie more recently has to be viewed not in simple racial or linguistic term, but in the fact that the unique geographical setting of Bangladesh, with its highly fluid deltaic and forest regime, offered a formidable and significantly different political as well as cultural identity. The cultural 'other' that the Aryan mindset, in ancient as well as in medieval and modern periods, had constructed with respect to Bangladesh has, therefore, been largely an ecological otherness.

But how do we identify the key environmental links to the formation of a separate socio-cultural identity in this region? Answering this question would require us to take a look at the role of extensive *chars*, (alluvial formation), of the rivers and the forest in more recent history, especially in the British colonial period. The process of land reclamation in the deltaic regions did not denote a mechanical mode of cutting forest or developing *char* lands for cultivation. In most cases, reclamation was taken up in areas far beyond the vicinity of a settled tract or village. But even in the cases where distant migration took place societal relations seemed to have been reproduced. For instance, in Barisal Sundarbans, the gradual extension of the population southward was brought about by establishing daula bari or a second home. A settled cultivator of a village put up a daula bari at a reclaimable or partly reclaimed tract, which he occupied during the cultivating season only. As the new tenancy grew in value, the daula bari tended to become a real homestead to which the family, or more generally a part of it, migrated.²³

Among those who reclaimed wastelands, nine out of ten cultivated these lands with their own hands, though they might have employed others to assist them.²⁴ This collective process of reclamation and settlement bonded the reclaiming tenants together in a spirit of equity, if not equality. They developed mutual dependency as well as collective way of doing things. It was the custom of the cultivators to assist each other mutually with labour and recourse to hired labour was unusual.²⁵ As the

H. Sasson, Offg Collector, Barisal to W. Hunter, 7 Sept 1885, Movements of the people, p.24,

CSAS, Mukherjee papers: 'Thirty nine articles on the Report of the Bengal Rent Law Commission',

India Office Records, Temple Collection, MSS Eur F86/165, misc. colln. 14, no. 26/27J.G: Offg Joint Magistrate of Munshiganj to Collector of Dacca, 19 Sept 1873; Seton-Karr, 'Agriculture', p.

old aristocratic Muslim families and upper caste Hindus were not involved in the actual reclamation process, differentiation did not become the dominant feature in the society. Henry Beveridge was surprised by the dearth of aristocratic Muslim families in Bakarganj, which was full of Muslims.²⁶ As new lands were being created or reclaimed from forests, the tenants were at considerable liberty to settle in lands on terms best suited to their demand. If they were not offered favourable terms, they would leave to seek better deals elsewhere. A Magistrate of coastal district of Noakhali, for instance, reported that there were very few wealthy individuals, but on the other hand there were no paupers and the possession of wealth was 'widely diffused among all classes of the community'. He attributed this 'fortunate condition' to the system of land tenures which ensured the possession of a small plot of land or interest by 'almost every individual'.²⁷

Among specific social groups, the Badyas made a gypsy social group, who lived on boats, and rarely set foot on land 'save for the purpose of theft or to sell their rude manufacturers.' In the course of the nineteenth century they formed colonies of the ordinary agricultural type, gradually merging into the vast mass of the population. A remarkable instance of their cultural survival was their villages which appeared as 'a congeries of mat huts, of a shape identical with that of the cabins on their floating homes.' When the indigo industry was closed in the district of Sirajganj, the Bunas, another gypsy group, who served as coolies at the indigo factories, were induced by the local landlords to settle on the wastelands for the purpose of reclamation. Following this, the Bunas induced more of their fellow community members from their homes in the districts of Burdwan, Birbhum, Bankura and Purulia, to settle in this region, which included both zamindari estates and *khas mahals* or government lands. ²⁹

The Namasudras, numbering about 1,860,000 in 1901, made the second largest Hindu caste in Bengal and the largest group among Hindu cultivators in eastern Bengal. They also exemplify linkages between the process of the reclamation of wasteland and upward social mobility in the nineteenth-century eastern Bengal. The Namasudras did not exist as a distinct caste group before the nineteenth century when all inferior castes were loosely described as 'Chandals'. In the course of the nineteenth century most Chandals proved extraordinarily responsive to the opportunity of engaging in agriculture within the general ecological regime of the Delta which offered fertile land, higher wages for agricultural labour and profits from the commercialization of agriculture. The highly fluid environment of the marshy tracts where they lived and which they reclaimed for cultivation often 'diluted the intensity of oppression by the dominant classes'. Towards the end of the nineteenth century, it was observed that the Chandals tended to identify themselves as Namasudra with a view to mobilizing themselves along a distinct caste category. This transformation from Chandal, a rather nebulous and inferior identity, to

²⁶ H. Beveridge, District of Bakarganj, 191.

²⁷ Condition of the lower classes, p.11.

²⁸ F.H. B. Skrine, Offg Collector, Tipperah to W.W. Hunter, 25 July 1885, See Movements of the people, p.7.

²⁹ Movements of the people, p.12

³⁰ Sekhar Bandyopadhyay, Caste, protest and identity in colonial India. The Namasudras of Bengal, 1872-1947 (London, 1997), p.22.

Namasudra, denoting association to higher castes of Sudras, was reasonably mediated by the status they gained through agriculture which offered them a settled and relatively prosperous life. Whereas by the beginning of the nineteenth century they maintained an 'amphibious existence', earning their livelihood primarily through boating and fishing, in 1911 about 78 per cent of the Namasudras were more or less connected with agriculture.31

The fruits of reclamation of forests and chars and the extension of cultivation were comprehensively appropriated by the Muslim cultivators who formed the majority of the population, between 56 to 67 per cent in 1872. As Richard Eaton has shown, reclamation proved to be the most important factor for the growth of the Muslims in eastern Bengal deltaic frontiers throughout the middle ages. 32 This linkage evidently persisted throughout the British period. The long continuity of this linkage is subtly expressed in a popular ballad of eastern Bengal. The ballad narrates the movement of two brothers, Ghazi and Kalu, who started a journey saying 'bismillah' (in the name of Allah) and after traveling through many countries arrived in Bengal and at last settled in the Sundarbans forests where 'all tigers became their disciples'. They stayed there for 'seven years'. 33 In sponsoring the publication of a puthi in the 1830s, the publisher said that his grandfather, who was from Mymensingh district, migrated to Char Palash village where he built home after cutting jungle (jungle katia teni bari banailo). The puthi writer himself had a different story to tell. The writer, Siddik Ali, wrote:

Allah knew whether I would become a Muslim or not My mind always told me to leave the country. But the Devil forbade me on the excuse that I did not have money I then started some religious studies at the place of Mir Munshi Abdul Fazel

I don't know what happens to a Hindu when he dies So I left my own people to offer myself at *Khoda's* will. Let my relatives remain faithless I will bring faith in Muhammadi religion. In the tenth month of the year 1243 (1837 AD) I came to the town of Dhaka on a postal boat. In a Jumma day (Friday prayer day) at the hand of Sufi Shaheb I satisfied my heart's desire by the order of Allah (by becoming Muslim).

> The Hindus say I have gone mad I am not Sheikh, nor Syed nor Pathan, Whom shall I say (who am I) I am speechless, I don't understand anything

And I keep silent. So many have become Muslim after uttering the kalema

For a comprehensive account of the emergence and rise of the Namasudras in Eastern Bengal, see ibid., pp. 15-29; see also R. Carstairs, The little world of an Indian District Officer (London: Macmillan and Co., Limited, 1912), p. 58; For a background of the rise of the non-elite cultivating groups in India in the nineteenth century, see Susan Bayly, Caste, society and politics in India from the eighteenth century to the modern age (Cambridge, 1999), pp.108-10, 200-2.

Richard M Eaton, Rise of Islam and the Bengal frontier.

Ghazi kalu and champaboti kanyar puthi (Mymensingh, 1870).

But they live the lives of Hindus
When they will die, only then they will know
The true essence of happiness in life (*zindegir shukh*)
...Afterwards I was taken to Hujurah (seat of a spiritual leader)
and he (*hujur*) taught me some lesson of spirituality (*marfoter bedjat*).³⁴

It is apparent from the *puthi* that Siddik Ali was an ordinary man and was too poor to make a journey. Then he began to understand Islam and came to eastern Bengal after availing of the earliest opportunity and became a Muslim. It is not clear whether his migration to eastern Bengal was for material reasons or due to a genuine desire to lead a sacred life; but practically he not only attached himself to the emerging Muslim society, but also took responsibility to spread the teaching of Islam.

The Muslims, like other social groups, appeared to be quick to avail themselves of the new agricultural opportunities. This was accompanied by an urge for self-esteem and honour. A Collector of Noakhali reported that the Muslim cultivators were a thrifty class who seldom spent money on passing enjoyment and that it was the 'chief ambition of a Muhammadan rayat [cultivator] to save enough to buy a small estate, which will give him independence and position among his neighbours'. 35 Muzaffar Ahmad, one of the founders of the Communist Party of India, was born in the 1880s on the island of Sandwip. He noted that among the Muslims the title thakur was a symbol of some rank and the family of his grandfather had some claim to it, however small. He recorded that in a small island like Sandwip, a family with even a few acres of land was considered aristocratic. His father was a pleader who was born in 1827 and he narrated that nearly all his father's professional colleagues had become owners of a good amount of landed property. He also mentioned how many of his own friends were aspiring to a middle class position in Sandwip and other neighbouring islands (such as Hatia). This indicates that in those peripheral islands of the Bay of Bengal three consecutive generations went through a process of upward mobility, financially or socially. Such process of upward mobility inevitably paved the way for differentiations within the society. For instance, a *puthi* reads:

When a man becomes rich he does not care anybody
He considers himself above everyone else
He has wealth but does not donate
But when a *Hakim* visits his house, welcomes him heartily
When (ordinary) visitors come he says there is no food at the house
When a *salar sammondhi* (distant but materially important guest) arrives
He kills pigeons (to entertain).³⁷

Such differences in attitude turned into class differentiation in the context of deteriorating agrarian relations which became most apparent by the early twentieth century. But in the course of the nineteenth century, as long as ecological and social conditions remained favourable to ordinary peasantry, society remained largely undifferentiated in both economic and cultural sense, broadly defined. Within these

³⁴ Siddik Alir Puthi, 1244 BS (1837 AD).

³⁵ J.E. Webster, EBDG: Noakhali, p. 279.

³⁶ Ahmad, Myself and the Communist Party of India (Kolkata, 1970), pp. 1-5.

³⁷ Abdur Rahim, *Akaler puthi* (Kishorganj, Mymensingh, 1875).

trends we do not find it surprising that a puthi written in the 1870s talked about jatekgathan or 'nation formation'. The author of the puthi observed that the whole universe (jagat) was created because of the Prophet of Islam while the nation (jati) was also created because of the Prophet. It is not clear whether the author was speaking simply of the *ummah* or community of Islam, or whether he was making a point in the context of the emergence of a new society in eastern Bengal. But the term *jatek-gathan* appeared particularly reflective of a mobile and vibrant society in which the writer apparently nurtured his sensibilities.³⁴

Thus in the nineteenth century the sublime quest for 'nation' was indirectly influenced by the ecological regime, in particular the forest and the water system, of eastern Bengal in the sense that it provided economic buoyancy and social mobility which provided elementary impetus for social formation. During the Pakistan period, environmental signs and symbols remained central to the collective struggle for a free Bangladesh. Nature was remarkably invoked in the musical or literary expression of patriotism and ideas of political emancipation from Pakistan. In today's Bangladesh, natural phenomena occupy a prominent place in the production and reproduction of cultural heritage.

Cultural response to nature in everyday life

Having discussed the broader environmental background and significance of culture(s) in Bangladesh, we will now focus on the specific contexts of relationship between culture and nature. It has been a well-known assumption that the whims of monsoon climate and the dependence of crops and livelihood on such climate have made the people of the region believers of an absolute power. In this context the concept of goddess Kali and Durga can be considered emanating from a sense of omnipotence of nature. In everyday economic activities gods and goddesses are invoked for safety and well-being. It has also been observed that though the Veda, Purana and other ancient scriptures have spread the message of moral theology, Bangali Hindu society have paved ways to the emergence of various gods and goddesses which are intrinsically related to various natural phenomena.³⁹ This relationship between man and the supernatural has manifested itself in the way ordinary people interact with their environmental surroundings.

Water seems to have been the single most important ecological element that has formed the cultural life in the region. This is primarily because of the presence of extensive network of rivers and different other water bodies along with the water that descend on the land in rich volume during the monsoon. In the Hindu pantheon, both goddess Durga and river Ganga are equated with Ma (mother), as long as they are considered the pristine provider. But there are occasions when Ma Ganga (Mother Ganga) is often more intimately engaged than Ma Durga. Thus the Hindu fishermen propitiate Ma Ganga 'not only for helping them make a good catch but also for keeping them safe while they are fishing."40 The river is also viewed as a site for washing off of not only the body but also of the sins. The tradition of annual dip in

Aftab-i-hidayat (Mymensingh, 1877).

M.A. Rahim, vol.2, p. 8.

Md. Anwar Hossain, 'Fishing Community', in Banglapedia.

Langalband, a place near Dhaka where the Ganga and the Brahmaputra rivers meet, signify this popular spiritual attachment to water.

The emergence of Islam, especially its Sufi variant, in the cultural frontier of Bangladesh gave rise to a different metaphysical framework for the appropriation of nature, but the centrality of water in popular mind remained unchanged. The concept of local gods and goddesses was mixed with the examples of the life of the Sufis. This inter-cultural development led several eminent cultural historians of Bangla to assert that these shifts gave rise to a kind of hybridity or syncretism, which symbolized a secular, non-orthodox and flexible cultural world-view. 41 While this has been the case to a certain extent, it must be acknowledged that a more fundamental change was occurring in the cultural landscape of Bengal. For instance, the remembrance of the names of local pirs, eg Badar, in place of gods and goddess, during sailing across a river meant that Bangla popular mind was shifting its focus from animism to a sort of anthropocentrism. While in pre-Islamic period, man's engagement with nature was often mediated by omnipotent supernatural elements, now human being began to be regarded as an agent of God. Therefore, while the Muslim fishermen say their prayers, arrange milad (prayer to Allah praising the holy prophet's birth), they also take blessings from spiritual personalities by offering shirni (sweetmeats) as well as donations to darga (mausoleum of a holy saint) before setting out on the first fishing voyage of the season. 42 It is no wonder that dargahs are often situated on the river banks or various kinds of water bodies. It may be noted that one of the most prominent personalities in Bangali Muslim mythology is Khaja Khizr. Khizr represents the domain of water and is regarded as the 'water-saint'. He is considered to be still alive and is believed to be so old that he had contact with Noah during the Great Flood. A fish-rider and protector of the mariners from shipwreck, Khaja Khizr is believed to have discovered the source of the water of life. He is also venerated during flood and drought. Still today, there exists the practice of burning lamps in his honour in the Buriganga river. 43

Popular perception of health and disease in Bangla draws from situation of hot climate of the region. It is no longer fashionable to believe in an inherent connection between heat and certain diseases, for most theories which attribute disease to climate now sound medically unacceptable. However, it is worth exploring some aspects of indigenous knowledge about and popular attitudes towards the way the people cope with the unhealthy circumstances which are partly due to the 'tropical' climate and landscape. Writing in the 1830s, William Twining, an English medical practitioner, found that people generally exposed to extreme heat in Bangla were liable to apoplexy, paralysis, inflammatory fever, and sudden attacks of cholera. The general attitude of the Bangali people to *Bhadra*, a very hot as well as extremely humid month corresponding roughly to mid-August to mid-September, provides an

⁴¹ Rafiuddin Ahmed, The Bengal Muslims 1871-1906: a quest for identity (Delhi: Oxford University Press, 1981); Richard M. Eaton, The rise of Islam and the Bengal frontier 1204-1760 (New Delhi: Oxford University Press, 1993); Asim Roy, Islamic syncretistic tradition in Bengal.

⁴² Banglapedia.

⁴³ Sirajul Islam ed., History of Bangladesh (vol. 3, Dhaka: Asiatic Society of Bangladesh, 1997), pp.90-92; Ahmad Hasan Dani, 'Significance of the establishment of the independent sultanate in Bengal', Justice Muhammad Ibrahim Trust Fund Lecture, Asiatic Society of Bangladesh, Dhaka 1997, p.8.

⁴⁴ William Twining, Clinical illustrations of the more important diseases of Bengal (vol.1, 2nd edn., Kolkata, 1835), p. 6.

example of the popular response to such climate of heat and humidity. Twining observed that the month of Bhadra produced 'extreme languor, depression of spirit, and exhaustion of bodily strength as well as mental energy.' During this month, animals languished and became sickly, and consequently meat and all market supplies were of 'indifferent quality'. It was estimated that at least one-fourth of the total number of annual deaths occurred in this month. In response, people have shown remarkable conservatism about this time. Twining noted people saying that those undertaking a journey in this month were liable to 'lose their lives, or to have their health permanently impaired.' Marriages were not contracted by the Hindus and women did not visit their relatives. Twining, however, remarked that many of the popular conclusions with respect to this month were the result of long observations. Till date, many communities in rural Bangladesh prefer to arrange marriage during cooler and drier months as there is abundance of food and communication is easier for the bridal parties to travel during this time.

In response to the hot climate, among those who could afford it avoided 'any exertion', reduced the quantity of their food, and ate fruits which were considered cooling. In the afternoons, they drank the fluid contained in the unripe coconut, or a very simple sherbat, or some sugar and water, which was thought to be especially cooling. They also occasionally drank an infusion of the leaves of Nalta Pat or jute (Corchorus Olitorius) in the mornings as it was considered to have a 'cooling and mild tonic effect' as well digestive powers. Twining observed that though tuned to the hot climate, the Bangalis took 'more care to moderate the effects of the hotseason than Europeans—especially in their light clothing, abstemious food, and tranguil habits.'46

Despite all these precautions among Banglalis of all regions, however, western Bengal and to some extent northern Bengal, stood exposed to more diseases and fatalities than eastern Bengal. The factors that differentiated the health conditions in eastern Bengal from other parts of Bengal, therefore, appear to have been caused by other factors besides heat and humidity. One of the factors appears to be the styles of housing, particularly in regard to ventilation. Twining observed that conditions of illventilation in the living places caused several diseases, including cholera.⁴⁷ A Bangali sociologist, Kanny Loll Dey, observed in the 1860s that in order to keep the air 'in its necessary state of purity', it must be 'continually changing.' Following the estimate of a European doctor, Dey thought that the change must amount to at least 2,000 cubit feet per hour per head for persons in good health, and not less than 3000 or 4000 cubic feet or more for sick persons. But he observed that a room in Bengal, meaning mostly western Bengal, was like a 'hermetically closed box'. In the case of dalans or masonry buildings, where better-off people lived, most spacious and somewhat airy areas were reserved for social functions such as *pujas*. In these areas male members of the family predominated. On the other hand, the zenana, where women of the family lived all day and night, received hardly any air or light. Day noted that when the male members entered the zenana for rest or a night's sleep, they also joined their female members in the same 'hermetically sealed' room. Therefore,

Ibid., pp. 8-9.

W. Twining, Clinical illustrations, p. 6.

Ibid., pp.31-2.

sleep, 'nature's sweet restorer', brought rather 'lassitude and enervation'. ⁴⁸ In the cases of accommodation of ordinary people who could not afford masonry buildings, and this was mostly the case, the walls of houses were made of mud and there was very little ventilation, except through the door. ⁴⁹ In eastern Bengal, the situation was perhaps better in this context, since in most deltaic districts masonry buildings were not as prevalent as they were in Burdwan or Hugli. The accommodation of ordinary peasantry was mostly built of slit bamboos which contained 'a superabundance' of air. ⁵⁰ In today's rural Bangladesh, the tradition of erecting houses made of mud and straw with ample facilities for cross-ventilation persists.

Another interesting feature of housing in eastern Bengal is that people tended to surround their dwellings with different kind of trees and also with thick thatch of leaves or rice straw. Such arrangement apparently speaks of Bangali people's intimacy with nature, but this at the same time serves two other purposes. One is the need for supply of fruits and fuels for the family and the other one is the need for privacy which, as a nineteenth-century English visitor commented, was 'looked upon as of great importance, as it often shields a family from obnoxious intrusion'. It must be noted, however, that the traditional housing patterns with a clear bias in favour of environment and health is fast diminishing with the recent pace of urbanization which have resulted in a kind of accommodation culture that shows an entirely different pattern of living and well-being. People live, or are compelled to live, in a condition characterized by less ventilation, lower rooftop, and dense population.

As far as the relationship between Bengal soil and health was concerned, John M'Clelland, another English medical scientist, observed that most of the soil of eastern Bengal consisted of grey sand, which, becoming saturated with moisture retained by the clay on which it rested, was rendered rich and fertile during cultivation. When neglected, it degenerated into a poor sandy or heavy clayey soil, which was soon overrun with coarse grasses and other indigenous vegetations, which, once established, was difficult to eradicate. It was observed that in the eastern Bengal alluvial lands where reclamation and cultivation took place most extensively. diseases were proportionately less prevalent than in other areas of Bengal where reclamation and cultivation were less intensive. M'Clelland also observed that in the areas composed of lighter sedimentary soil, such as the Sundarbans, fever did not set in 'until after the first fall of the rain', when the malaria had immediate effect. It lost its effect for a time when the rains had set in, reappeared when the fall of rain became interrupted towards the close of the rainy season. Like the eastern Sundarbans, districts composed of sedimentary deposits became safe after November. The districts composed of laterite or heavy clay, mostly prevalent in western Bengal, on the other hand, took a longer time to dry after the rains had subsided and were not 'safe to enter until the middle of January.' There are reasons to believe that Bangali peasants who reclaimed and cultivated lands and dwelled in this region had been

⁴⁸ Kanny Loll Dey, *Hindu Social laws and habits viewed in relation to health* (Kolkata, 1866), pp.3-5.

⁴⁹ Baboo Isser Chunder Mitter Roy, 'A few facts concerning village life', The Bengal Social Science Association Meeting, 1877 (Kolkata: Wyman and Co., 1877), p.3.

⁵⁰ Mitter Roy, 'A few facts concerning village life', p.3.

⁵¹ A sketch of Eastern Bengal with reference to its railways and government control (Kolkata: Thacker, Spink and co., 1861), p. 3.

aware of the subtleties of good living in their ecological system. M'Clelland noted that in response to the threat of diseases, the Bengalis showed 'instinctive objection to live on ground floors. Their houses were consequently raised on posts. This practice, which was also prevalent in parts of Assam and Pegu, seemed to have originated in a perception of the capillary attraction of the soil, in consequence of which, the surface was always wet. Thus the inhabitants of these regions displayed a 'just appreciation of the influence of soil', which became 'engrafted even in their national character and customs.⁵²

Food habit and housing patterns of the people of the region, thus, appear not only environmentally-inspired but also reflective of an awareness of healthy living. This sounds true also in the case of dressing. Though Bangladesh has been well known for its excellent muslins for centuries, it has been the clothes made of coarse cotton fabrics, eg. shari, of recent origin dhuti, punjabi-pajama, which are used universally. No doubt, this has been particularly so because cotton fabric is best suited to the hot and humid weather of the land. Popular appreciation of this connection between the region's climate and clothing pattern has given rise to indigenous textile industries which have accommodated workers from all traditions, Hindu, Muslim or indigenous

With regard to local ecological wisdom about nutrition intake, health and medicine as well as agricultural practices, there is strong evidence that the people have intimate knowledge of the biodiversity that surrounded them and they make the best use of it. This knowledge of biodiversity and their uses have recently been appropriated within the framework of sustainable development. For instance, the government has started to advocate the use of some selected indigenous agro-ecological knowledge by farmers to mitigate environmental degradation. Some of these practices include: the use of bamboo sticks or tree branches for insect control; the sprinkling of cattle urine or spreading of tobacco dust to control pest (as nicotine is an effective insect repellent); the use of neem leaves with its active insecticide 'azadirachtin' and Biskatali leaves when storing seeds to deter insect attack; the laddering of standing wheat crops and pulling of ropes across rice/wheat fields early in the morning to moisten the soil with falling dew drops; the use of ash; and application of poultry excreta to vegetable gardens to provide nitrates.⁵³

Forest, a major repository of biodiversity, has been given a special place in popular mind. This is true not only in the case of the adivasi or indigenous people such as santals but also for the Bangalis themselves. Here forests are not considered culturally alien as much as they are in western worldview. Forest has been a special site for the meditating sadhus and sufis; this has been a place for banprasth or place of retirement of ordinary husbandmen. It is true that there are numerous stories of bonobash, or banishment in the forest, but this does not signify the alien entity of the forests. In most of the stories of bonobash, the bonobashi, or the banished one, is found to have made intimacy either with forest-dwelling creatures or with human being connected with forest in some capacity. The demarcation between the domestic and the wild has, therefore, been blurred to a certain extent in the folk ideas and

J.M 'Clelland, Sketch of the medical topography, pp. 38, 126.

Abdul Momen Miah, Indigenous Technical Knowledge: Unexplored Potential for Sustainable Development', Paul Sillitoe ed., Indigenous Knowledge Development in Bangladesh. Present and Future, Dhaka: UPL, 1990, p. 25.

stories. No wonder, so many stories have been told about the Sundarbans ('beautiful forest') that it has been justly termed as an 'anthropological and sociological dreamscape'.

At a more practical world of struggle for livelihood, however, people undergo the predicaments of wilderness with the perceived support of spiritual or metaphysical authorities. Whenever villagers, Hindus and Muslims alike, enter a dangerous forest zone, a holy man or a *gunin*, with spells and amulets, accompany them to keep tigers away. Bonobibi, the forest goddess, provides an interesting example of how people view the Sundarbans as an ambivalent site which is simultaneously very close and alien to their worldview. Bonobibi was abandoned in the Sundarbans after birth but was reared by deer 'by the will of Allah' and was filled with magic to turn a goddess who would vow to help the vulnerable visitors to the Sundarbans. The Sundarbans were perceived as a place of wild animals, particularly tigers which would stand between themselves and their search for livelihood such as timber or honey. In this context, they seek support of Bonobibi who is considered all powerful over the wilderness of the Sundarbans. The presence of Bonobibi in the Sundarbans make it 'safe' as much as in the womb of mother. The *gunin*, who accompany the forest-goers, therefore prays:

O Mother

Thou who lives in the forest,
Thou, the very incarnation of the forest,
I am the meanest son of yours.
I am totally ignorant.
Mother, do not leave.
Mother, you kept me safe inside your womb
For ten months and ten days.
Mother, replace me there again,
O Mother, pay heed to my words.⁵⁴

An interesting aspect of the whole programme of visiting the forest is not only the prevention of the team from wild attacks with the support of Bonobibi, but it also relates to the test of purity of one's soul—for if such a team is nevertheless attacked-even the *gunin* may be a victim--a reason is invariably found: an act of impiety, some offense which the gods would not let pass.⁵⁵ In recent days the *gunin* finds that they are not getting the desired support of Bonobibi as frequently that it used to because, according him, people are becoming impure and that goodness is giving good-bye to the world.⁵⁶ Thus, in Bangali cultural worldview, forest provides a special site where ethics and supra-rationality exist together.

The bazaar is a special feature of the public life in Bangladesh. Until recently bazaars were perceived as a place for material exchanges in a purely economic context. C.A. Bayly's seminal work on Indian bazaars has, however, shown that these are also places for reproduction of cultural, social as well as political traditions and

⁵⁴ Sy Montgomery, Spell of the Tiger, quoted in AK Townsend, 'women of water, men of mud: gender translucence & opacity in the Sundarbans', in http://www.smartoffice.com/tiger/id26.htm

⁵⁵ http://www.phy6.org/outreach/books/Tiger.htm

⁵⁶ AK Townsend, 'women of water, men of mud: gender translucence & opacity in the Sundarbans', in http://www.smartoffice.com/tiger/id26.htm

activism.⁵⁷ In Bangladesh, these bazaars have invariably been set up near rivers or any kind of water bodies. The way how bazaars have been influenced by water bodies of the region has been amply illustrated by Richard Temple, the nineteenthcentury Lieutenant Governor of Bengal, who visited eastern Bengal in the 1870s, "Boats of all sizes in thousands are moored and lashed together, thus constituting stages, almost roadways along which people can move to and fro. Tens of thousands of boatmen, workmen, and traders are congregated; this concourse induces villagers and tradesmen to bring supplies on board the boats; the merchants find it convenient to arrange their transactions on board also. Thus a floating city is actually formed on the river for several months in the year; on board of this vast flotilla, markets are held, goods disposed of, even rates of exchange settled, and transactions proceed as if on land...the river-banks and temporary islands mid-stream change every year, therefore the floating city, while it keeps its name, has not a local habitation...it has been not inaptly termed a town without houses."58

If environment has been influential on religious beliefs, health and well-being as well as social and economic interactions, this is also true that it has bearing on the finer sides of the community and its values. For instance the folk song: 'Ai bristi jhepe dhan dibo mepe' (Oh rain, come in profusion, and we will donate paddy produced thereafter with equal proportion) signify the intimate relations between community feeling and the virtue of charity as they rely on an endowment of nature: rain. At the same time the people have felt affinity with nature with such passion that even the etymologies of different natural phenomena suggest that nature possess some kind of temperament or character. Thus, the Sundarban means 'the beautiful forest', Haringhatta denotes 'deer-shore' river, Madhumati represents 'honey-flowing' river, Bhairab represents 'dreadful' river and so on.

The indigenous people represent a small proportion of Bangladesh population percentage wise, but they are rich in their cultural worldview and diversity. Generally the indigenous people attach great importance to earth which they consider as 'mother' who possesses all possibilities of bearing children, that is crops. No doubt a reconstruction of the idea of the earth in the symbol of a mother relates to the agrarian order in which they live. It is observed that they worship the 'mother' earth before sowing crops. Specially the Oraons revere the cropland and believe that it is the earth-mother's menstruation that produces crops. This explains why they observe a number of ceremonies where the 'earth is treated as a menstruating or pregnant woman.'59 But agricultural practices of the indigenous people have not merely revolved around some supernatural ideas and deities; cultural practices of a more secular, temporal and diverse nature have evolved as well. For instance, there are records of fifty-two techniques and associated tools employed by tribal people in watershed management in the country's hill tracts region. 60 If technology is a form of cultural expression then these agrarian techniques provide example of the indigenous people's diverse patterns of cultural attachment to nature.

C. A. Bayly, Rulers, Townsmen and Bazaar: North Indian Society in the Age of British Expansion. 1770-1870, Cambridge University Press, Cambridge, 1983

Richard Temple, Men and events of my time in India (London, 1882), pp. 417-8.

Ali Nawaz, 'Tribal culture', Banglapedia.

Paul Sillitoe ed., Indigenous knowledge development in Bangladesh. Present and future (Dhaka: University Press Limited, 2000), p. 6.

Representing nature in cultural modes of expressions

Representation of nature in various cultural modes of expression forms an integral part of cultural life in a society. In Western literature, for example in Homer's *Iliad*, sea is represented as repositories of misfortunes or hurdles as well as sits for expressing human heroism which responded to such misfortunes. Generally, in Western literature, nature provides space for creative imagination of temporal orientation. There are rivers, forests and picturesque landscape in Europe and in America, but literary traditions fall just short of spirituality. In South Asian literature, references to natural phenomena have been imbued with spiritual contents and, at the same time, natural elements have often been personified. In Kalidasa's classic *Meghduta* clouds are skilfully depicted not only as purely natural phenomena, but also as an ambassador for Shokuntala, who wanted to send emotional messages to her beloved husband then living in a distant place. To the French poet Charles Baudelaire, for instance, cloud is loveable but it is at the same time a stranger; to Kalidasa it so intimate, hence impersonated.⁶¹

Perhaps such remarkable subjective attachment to natural phenomena in this region has led to the absence of a tradition of intellectual or critical appreciation of nature and its manifestations. The famous Abul Fazl of Emperor Akbar's court sought an ecological understanding of the region of Bangladesh. He argued that the kings of the land used to construct grand al (embankment) by the size of 10 gauge height and 20 gauge width in the ancient period. For this reason this region had been called Bangalah. Abul Fazl also made other related observations on the land and landscape of the region. He, however, was not an environmentalist and his analysis of the landscape of Bangla was necessitated more by an imperial and administrative need for revenue collection than by a particular need for examination of the landscape. The absence of pioneering environmental thinkers in the pre-industrial and pre-modern era may be explained by the fact that during this time environmental degradation did not become so pervasive. But even in modern period, when the United States and France, for instance, have seen great environmental thinkers like Aldo Leopold or Fernand Braudel respectively, India in general and Bangladesh in particular have not produced any remarkable environmental thinker. Specific scientific or intellectual work on raising awareness in the deterioration of environmental system appears only secondary to the accommodating of nature in more aesthetic narratives in poems or novels. So, creative literature rather than intellectual exercises have become the major repository of human expressions about nature in this region. But this deficiency has to been seen not as an instance of poverty in the Bangali intellectual thoughts on nature. It has to be sought in the fact that popular mind-set in this region has been so spiritually and romantically loaded that in most spheres of cultural expression on nature, scientific attempts to understanding environmental problems and priorities have not been made.

The earliest evidence of aesthetic appreciation of nature in Bangla language could be traced in the specimen of Bangla language itself, known as *Caryapada* or *Caryagiti*. In the *Caryagiti*, composed by Buddhist monks during the ninth to thirteenth centuries, natural phenomena appear as symbols of poetic and spiritual representation. Since different water bodies dominate the landscape of the region,

⁶¹ Baudelaire in his famous poem, 'The stranger', thus writes: I love the clouds the clouds that pass up there up there the wonderful clouds!'

Caryapadas extensively use imagery of water and related themes. For instance, in one Carva, the world is compared to a river which is a deep source of endless sin. Since middle of the river is unfathomable and thus difficult to cross (to overcome these sins) for the ignorant commoners. Catilla and Siddhacarva, two Buddhists saints, built a bridge (of spiritual wisdom) for those who wished to cross the world river of materialism. 'The wood needed for the bridge has to be gathered from the tree of illusion which is rooted in our mind. Body, speech and mind are sources of illusion and should be separated in order to destroy evil. They will have to be joined by knowledge. The bridge will be constructed by wisdom. This is the way of salvation. While water is mystified, various other elements relating to water are inserted in creative expressions. For instance, boat, boatmen, tortoise, fish, boatmaking instruments—all aid in the process of using nature as metaphor for spirituality. In one Carya, the boat represents the Buddha, Dharma and Samgha. Its eight chambers represent eight Buddhist treasures. Inside is supreme Bliss. Kanha says: 'avoid illusion and sail your body boat. Take the five senses as your oar and cross the sea of the world'. Thus the Carya says,

> The deep and profound world river flows fast The two banks are muddy The middle is unfathomable

The body is the boat. The mind is the oar Hold the sail high to the words of the Guru (guiding saint). Concentrate your mind...⁶²

Bangla literature underwent major wave of development in the Middle Ages, particularly in the fourteenth century onward. During this time, Caryapada tradition of creative and spiritual engagement with nature persisted in the Vaishnava and Sufi literature. Literary works of these genres continued to consider natural phenomena as means of understanding the ways of attaining spiritual excellence and knowledge. The songs of Lalon, a nineteenth-century saintly poet who represented a synthesis of Vaishnavism and Sufi trends of medieval literature, provide representative examples of linkages between water and creative quest for spirituality. Thus Lalan says,

O, that untouchable (adhar) Man has taken his dwelling ($gh\bar{a}t$) by the bank of the River. It is built with stones by implementing pearls and jewels.

The Padmā and Jamunā are mixing in the ever-flow of the Bhāgirathī,

Descending in three moods the waters of the three rivers are making ebb and flow.

The first Man in the Untouchable Moon has the one form taken three shapes.

From three sides mixing with three tastes (rasa) they are giving public audience.

Turning three ratis and riding on three rasas, Man has taken three

—sādhāranī, samaň jasā and samarthā—names.

In the taste of poison it is sādhāranī, in samaň jasā I hear it to be śāmbhu.

(And) the *samarthā* is residing in the form of nectar.

One who has become a taster (rasika), only knows that implementation of tastes.

By mercy of spiritual guide, descending on the ghat, he has surpassed three ratis.

When the passionate love (rasa-rati) is surpassed, it is called Gopī-krpā.

Turning his eye to the easy (course of enchanting) beauty, he is dead while alive.

Sitting on the *ghāt*, he has captured easily the Man.

O Friend, says Hīruchānd, without knowing the inner meaning (bhāva) Panj, you wander in vain.

This discussion and the English translations of the Carya are drawn extensively from Hasna Jasimuddin Moudud, A thousand year old Bengali Mystic poetry, UPL, Dhaka 1092, pp.38-40

Here apparently the Faqir Panj Shah is aggrieved as he could not taste well the inner meaning of the thoughts of the *Bauls*. As the three minds—beastly, human and divine—are only a diversification of one Mind, so the disinterested love that never dies are originated from the One Source, so are the three currents of Water (benī or srota-dhārā) coming form the One Origin and are again mixing with the same River (or Ocean). 'These three currents meeting together are called the Trivenī-sangama like the three currents of attraction for love towards the Soul unified together in its developed mental stage from where all the three stages of attraction for love can be easily grasped. In the same way, when the passionate love disowns itself, it is called the favour of the Gopī-who alike gave up all their selfish desires for the sake of their Lord Krishna. Here the Baul poet is apparently favouring the *Sahajīyā* cult of love where the passionate love is gradually turned into divine love.'

One of the most remarkable genre of medieval Bangla literature is Mongal Kavva, composed during the 13th to 18th century. Mongal Kavya focuses on the story of a conflict between a very rich merchant and the goddess of snake, Manasha. Manasha desired that the merchant, Chand Sawdagar, would worship her. But the merchant was never ready to do so. In revenge, Manasha intervened to destroy all accumulated fortunes of Chand acquired by sea and river trade. Six of his seven sons died for the same reason. Finally when his youngest son died because of the curse of Manasha, the former's wife appealed to Chand to start worshipping the Manasha in order to get back her husband. Chand reluctantly did so and thus regained his fortunes and family. This story, as retold generation by generation in different forms, is often interpreted as the victory of local deities over the Aryan elite. Interestingly it appears that though Chand reluctantly gave in to Manasha, when he extended his offering in one hand, he kept a stick on the other hand. This is significant because that stick was made of Hetal tree, an indigenous variety, which the snacks detested.⁶⁴ It seems that the story refers to a conflict between two different cultural ways by which the ecology of the region was perceived: water trade that denote economic mobility and snake that represents cultural preponderance of an indigenous group called Bedya, who revered the snakes and whose livelihood depended on snake charming etc. In this conflict, none actually won since though Manasha received loyalty of Chand, Chand did it with a symbol that Manasha detested. In the final analysis it was an example of incomplete syncretism. And most significantly, water remained central to this story. For Chand, water was civilizational category, offering him opportunity for trade and commerce; for Manasha and hence the Bedyas, water denoted a sort of cultural shelter in which their lives and sensibilities were nurtured.

In the modern period, poetic and musical tradition of ancient and medieval Bangla continued to thrive with much more creative dimensions attached to it. Nature is the most celebrated theme in Rabindranath Tagore's writings. His famous song, 'amar sonar Bangla', written in 1905 in the context of the partition of Bengal represents the naturalistic essence of his patriotic feeling for a united greater Bengal, even though the nature he depicts mostly describes the natural environ of eastern Bengal, which

⁶³ Harendra Chandra Paul, 'Origin of the Bauls and their Philosophy', Abdul Karim Sahitya-Visarad Commemoration Volume, ed Muhammad Enamul Haq, (Dacca: Asiatic Society of Bangladesh, 1972). pp.25-6.

⁶⁴ S.M. Lutfor Rahman, Bangladeshi Lockochikitsha [Folk Medicine of Bangladesh], Dhaka: Bangla Academy, 2003, p.91.

later became Bangladesh. This particular song became the national anthem of Bangladesh after its independence in 1971. On the other hand, Tagore's 'Sonar Tori' or 'golden boat' represents the pick of his spiritual longing uniquely represented in the form of a boat: an integral element of archaic Bangla. Yet in his other poems Rabindranth has a more temporal, passionate and romantic affiliation with the waters and rivers of the region of eastern Bengal:

> ...in that village the Dhaleswari flows at her banks the shadow of Tamal tree and the woman who waits at the yard wears Dhakai shari, vermilion on her forehead

When I will live no longer, and when this song will not be sung Even then the sound of your joy of enlivening the heart of the earth in Bangladesh Will be heard year and year on, O Isamati (river).⁶⁵

Nazrul Islam, another great name in Bangla literature and the national poet of Bangladesh, was somewhat different to Tagore in that he did not seek sublime solitude amidst the serenity of the nature of Bangladesh. He instead was famous for his rebellious romanticism. He was imprisoned during the British rule for his fiery poems. The most famous anti-colonial piece of poetry by him, Vidrohi (The Rebel), extensively uses metaphor from nature. While Rabindranath is eager to seek unity with nature, Nazrul wants to use nature's elements in his quest for political emancipation in contemporary India.

> I am the soothing breeze of the south, I am the pensive gale of the east.

I am the harsh unquenched mid-day thirst, I am the fierce blazing sun, I am the softly trilling desert spring, I am the cool shadowy greenery! Maddened with an intense joy I rush onward, I am insane! I am insane!

Clapping my hands in exultation I rush like the hurricane, Traversing the earth and the sky. The mighty Borrak is the horse I ride. It neighs impatiently, drunk with delight! I am the burning volcano in the bosom of the earth, I am the wild fire of the woods, I am Hell's mad terrific sea of wrath! I ride on the wings of the lightning with joy and profound, I scatter misery and fear all around, I bring earth-quakes on this world! (8th stanza)⁶⁶

Quoted in Khaleda Edib Chowdhury, 'Bangladesher Nadi O Shahitya', Mizanur Rahmaner Troimashik Patrika, vol. XVII, no.3, issue 58, Oct-Dec, 1999., p.227-228.

Translated by Kabir Choudhary.

It should, however, be noted that on other occasions when it took Nazrul to write about the nature of the region itself, he found immense vitality particularly in the nature of Eastern Bengal. Nazrul has seen in the riverine Bengal a power that influences other parts of India and indeed beyond it. In his 'Purob Banga' (Eastern Bengal) Nazrul says:

The eastern horizon washed away by Padma, Meghna
The flute of the youth and the sunny sings as the dark night ends
That satisfying message of the moments of creation
Awakens the sleeping life, offers new consciousness
That elixiaring message spreads its power
In the West and in the distant horizon.
Always made sacred by the rhythmic waves of hundreds of rivers
The East Bengal is bathed pure and is beautifully placed in its deep forest
Amidst nature the simple, calm yet so powerful East Bengal exists
At this auspicious moment the birds of this message fly high in the sky
With jinglings and humings

Let the wintry India enlivens in this new spring.⁶⁷

Another famous contemporary of Tagore and Nazrul was Jivanananda. Jivananada's engagement with nature opened up a new vista in Bangla literature. At times he seems to be Wordsworthean in depicting nature, but while Wordsworth's poems represent romanticism in cold mental fusion, Jivanananda induced surrealism as he depicted nature. So he becomes more unpredictably diverse not only in expressing nature's diversity, but also in opening up his surrealist soul. His poems 'Rupasahi Bangla' or 'Nadi', amply illustrate this. Another Bangali poet whose poetry represents the true temporal beauty and reality of rural Bangladesh is Jasimuddin. He has rather folkways of appreciating the nature graphically set in a idyllic Bengali rural life and landscape. Different natural phenomena, from rivers to typical trees and birds of Bangladesh, have been elegantly represented in the writings of Jasimuddin.

These four poets represented four distinct genres in Bangla literature as long as the question of using nature in their works was concerned: Tagore used nature to engage ephemeral conditions of life or a philosophical unity with nature, Nazrul exalted nature to highlight existential temporality, and Jivananda used natural phenomenon to express surrealist feeling. Jasimuddin not only drew his poetic inspiration from nature, but in fact he soaked his poetic imagination and words in the essence of nature of the region. In Pakistan period, movement for national autonomy and then for independence contributed to the writing of a lot of patriotic songs. Al-Mahmud extensively used examples from rural life and landscapes to show affection to his motherland. Some of the poems of Syed Ali Ahsan and later Shamsur Rahman brought nature to describe their feeling of felicitation to Bangladesh. It must be noted here that along with poems a lot of songs were composed and sung in the modern period which drew extensively from nature to express patriotic feelings. In the wake of the War of Liberation, rivers, sky, forest, flora and fauna of Bangladesh were extensively referred to inspire and encourage the freedom fighters and to raise awareness of the mass. For instance, the song mora ekti phulke banchabo bole

⁶⁷ Quoted in Rafiqul Islam, in 'Purobbango O Purobdeser purnari', Prothom Alo, 1 September 2006 [translation is by the author].

juddho kori (we fight to save a single flower) became a very popular and inspiring song.

The age-old tradition of engaging nature's phenomena in poetic and musical tradition seem to have been greatly present in modern novels and short stories, which evolved in early colonial period. Bankim Chandara Chatterjee, most prominent of the first generation novelists in Bangla, set his popular novel, Kopal Kundola, in a deep forest. Nadi o Nari (1919) by Humayun Kabir, Padma Nadir Mazhi (1938) by Manik Banerjee, Titas ekti Nadir Nam (1956) by Adaityo Mallo Varman, Ganga (1957) by Samaresh Basu are classic creative expressions of the intimate relations between river and the life of the ordinary people, especially the fisher community. While these novels mostly depict a picture of the economic vulnerability of the fishers, they also represent the world view of the peasants which is centered on rivers. Samaresh Basu even employs libido theory in his novel through a central character who feels intimate attraction to river Ganga.⁶⁸ Timi (1981) by Hasnat Abdul Hai describes the struggles of the costal people not only with nature but also with the politics and bureaucracy that surrounds their life. Abu Bakr Siddiq's Jala Rakhas (1985) and Kharadaha (1987) describe human struggle for survival amidst storm, storm surge, famine, drought and epidemic as well as the crude insensitivity of the state. Selina Hossain's novel Pokamakorer gharbasati is not only the story of people's struggle against nature, but also of the story of their collective win over nature. In Nadi Vakke of Kazi Abdul Wadud, riverine environment seems to have played important roles. It describes how draught-induced poverty in one region caused migration leading to displacement in the family life, as well as in the community. But the writer also depicts how the migration in an ecologically endowed, rain-fed, region revives the hopes of a comfortable livelihood. In the whole story river appears to be an inseparable symbol of social mobility. ⁶⁹ Amarendra Ghose's Char Kashem trenchantly depicts how nature plays both destructive and formative role in the agrarian society of Bangladesh. Rather than accusing nature for human suffering, this novel narrates how human follies denies man's entitlements to nature's endowment. In this novel most important endowment of nature appears to be *char* or alluvial land topped up by soft, fertile silt. It is no wonder that the author passionately terms the char as 'milk cream' (char noi to dudher shar).

The environment lies centrally in the realm of folk literature, which largely comes in the form of rhythmic songs or poems. In term of thematic concentration the bulk of folk literature include planetary system, climate and weather, flora-fauna, landscape and animal. A survey on Bangla folk literature reveals the degree of reference to natural environment. (Tables 1-5).⁷⁰

Table 1: Environment-related words used in Bangla folklore

The universe	Climate	Geographical features	Trees and plants	Fauna and animals
2341	535	3274	1829	928
58%	13.37%	81.85%	45.72%	13.10%

Md Ashraful Islam, Samoresh Basur 'Ganga': Visaya and Shilporup, in Bangladesh Asiatic Society Patrika, vol. 18, no. 1, June 2000, Poush 1407, pp.57-64.

Kazi Abdul Wadud Rachanavali, vol.3, "Works of Kazi Abdul Wadud, Ed. Nurul Amin, Bangla Academy, Dhaka 1992, p.204.

Habibur Rahman, Bangladesher Lokosangeet O Bhougalik Paribesh (Folk Songs of Bangladesh and the Geographical Environment), Dhaka: Bangla Academy, 1982).

Table 2: Words relating to the universe

Cloud	Sky	Stars	Moon	Sun	Lightening	Total words used
325	213	249	611	507	436	2341
13.88%	9.10%	10.63%	26.10%	21.66%	18.62%	100%

Table 3: Words relating to physical features and landscape

Waterbodies	Alluvial lands	High lands	Hills	Creeks	Ebb and tide	Total words used
1352	385	131	326	374	706	3274
14.19%	11.75%	4.00%	9.96%	11.43%	11.57%	100%

Table 4: Words relating to trees and plants

Trees	Gulmo	Oushodhi	lata	Total words used
461	317	595	456	1829
25.20%	17.33%	32.53%	24.94	100%

Table 5: Words relating to fauna, fishes and animals

Birds	Fish	Animals	Insects	Total words used
209	374	83	258	928
22.6%	40.47%	8.98%	27.92%	100

Bangla proverbs offer interesting examples of how intimately they are related to nature and its different phenomena. Some of the examples are: Rtj Kuji W/4q eN jale kumir dangay bagh (crocodile in the water and tiger on the land or between the devil and the deep sea); thutb extili fa/intutb nÜ'v na/ yekhane bagher bhay, sekhane sandhya hay (danger comes where danger is feared); givnuzi`ug ju ukv mara hatir dam lakh taka (a dead elephant can still yield a hundred thousand coins in value, meaning the ruins of the great are still great), null Lut cotj e'utol juu guti/ hati khade padle byangeo lathi mare (even frogs may kick an elephant fallen in a ditch, or even little birds may peck at a dead lion), $\mathbf{m}\mathbf{Z}$ thou $\mathbf{N}\mathbf{j}$ $\mathbf{Z}\mathbf{j}$ \mathbf{j} $\mathbf{k}\mathbf{Z}$ $\mathbf{R}\mathbf{j}$ \mathbf{j} hati-ghoda $\mathbf{g}\mathbf{e}\mathbf{l}\mathbf{o}$ tal, masha bale kata jal (fools rush in where angels fear to tread), Why #10/du f Lth/ ghughu dekhechha, phand dekhani (you have seen the dove and not its trap).⁷¹ It is interesting to note that folk literature in Bengal region are not entirely same everywhere, as is generally perceived. Folklore have been similar in essence, but have often changed textually in the context of variations in regional environment. For instance, the following verse was collected from Bankura in West Bengal in 1302 BS by Vasanta Ranjan Ray Viddadvallabh:

Chele ghumalo pada judalo vargi elo dese/ Bulbulite dhan kheyeche khajna dive kise (the child sleeps, the place quietens, the Vargis loot the country, Nightingales devour paddy, how to pay rent?

Munshi Abdul Karim Sahitya Visarad collected the same sleep-inducing song from Chittagong in the Bengali year 1309 in the following slightly different form:

Mani ghumail pada judail gorki ail dese/Tiyapakhie dhan khail khajna dive kise (Darling (Mani) sleeps, the place quietens, typhoon comes to country/Parrots devour paddy, how to pay rent?

⁷¹ These examples are drawn from Banglapedia. Entry: Proverb.

The commentator who compared these two sleep songs comments that 'it is remarkable that a nursery rhyme based on the historical fact of Vargis (Mahrattah looters of West Bengal during the eighteenth century) plundering the country should migrate as far as coastal Chittagong where only naturally the word 'gorki' meaning typhoon or cyclone [makes more sense]'72

In other forms of art such as Alpana and Nakshi kantha nature is represented in numerous intricate ways. Alpana denotes a kind of art of drawing on the floor or wall with lots of colour and designs. Of the eight forms of Alpona, first set relates to lotus; second set to plants; third to trees, flowers and branches; fourth to rivers, and scenes of rural life; fifth to animals, fauna, fish etc; sixth to solar system. The rest of the forms of Alpana relate to non-natural themes. 73 Like Alpana, Nakshi Kantha, or embroidered quilt, also represents artistic excellence of rural women that universally engage natural phenomena. Only difference is that of the background and means of artistic production. Whereas Alapana is generally drawn on the floors or walls with indigenous colouring elements, in the case of Nakshi Kantha, drawings are made on used cotton sharees by both colourful and black and white cotton thread. Nakshi Kantha represents unique combination of necessity and creativity. In terms of design, usually there is a centre in the drawing and the centre has wider periphery. The centre is often occupied by a tree or a big kadama flower or a lotus. Generally, lotus represents the sun, the tree represents knowledge. In particular, Padmo (lotus) is the symbol of both womanhood as well as the depth of water. When water dries the padma dries as well, but after a little drop of rainfall it revives. The natural elements that surround the centre include flora and fauna; paddy sheaves, star and moon etc. In particular, trees, which are also often represented as jivan brikkha (life tree), occupies an important role in these forms of artwork. The tree represents direct relationship between nature and the artists in the countryside who would often do the artwork sitting beneath a shadowy tree. These threes are full of birds, fruits and leaves and these together represent a sense of live nature in the embroidery. The Hindus consider the tree as god, the Buddha himself sat under a tree to mediate. In Muslim worldview too trees have deeper metaphysical connotation: a new leave on a tree represents a new baby in the world. It may be added that the designs and motifs are equally applied to sharee, Punjabi, Salwar-kamij, bed sheet, table cloth, prayer mat, pillow cover, mats of sofas, handkerchief, included in the art of embroidery. It must also be noted that in both the cases of *nakshi kantha* and *alpana* women play the sole role in identifying and engaging artistic motifs and designs.

An example of harmony between human cultural expressions and nature can be found in the traditional architecture of the Bengali mosque, which is seen as 'fitting within a natural setting rather than forcing itself on its surroundings'. Bengali village mosques have thatched roofs and mud walls, somewhat similar to the original Masjid al-Nabawi (the Prophet's mosque). Often natural ponds are attached to these mosques. These serve as a place of wudu. The vernacular architecture of the Muslim villages reminds us that the focus of Islamic architecture 'should not be solely on building: rather, it should be about people and their environment and ecology.'

Abdul Karim Sahitya-Visarad Commemoration Volume, ed Muhammad Enamul Haq, Dacca: Asiatic Society of Bangladesh, 1972, pp 270-1.

Khogeskiron Talukdar, Bangladesher Lokayato Shilpakala (Folk Art of Bangladesh), Dhaka: Bangla Academy, 1987, p 17.

Another example of artistic engagement with nature is Bengali *tughra* decorative writing which dominated architectural calligraphy between fourteenth and early part of the sixteenth century. It has been rightly observed that 'the calligraphers...ranged freely, using their creative imaginations in producing different forms and patterns of *tughra*. However, it is not difficult to find in Bengali tughra a rhythmic pattern in the movement of the letters (emulating mostly Arabic letters in style) and in the flow of lines, which often contained metaphorical expressions of life, nature, and the environment of Bengal in abstract forms ranging from the bow and arrow of Bengali hunting life to the swan and reeds of riverine rural Bengal.' This exemplifies, according to the writer, the symbiotic relationship of the Bengalis to nature.⁷⁴

Conclusion

It seems that general environmental conditions of the Bengal Delta region have played significant formative role in the origin and development of the culture, broadly defined, that the people of the region cherish and practice. Of foremost significance in this regard has been the particular geographical location of the region. It is prominently located at the meeting points of the Indian subcontinent, southwestern China and northwestern edge of Southeast Asia and has, therefore, been subject to pre-historic cultural migrations from all of these regions. Instead of being overtly subjugated by any of the three cultural regimes, this region became a melting pot of all of these cultural traits, though the monsoon climate made it closer to Southeast Asian rice civilization. What was unique about Bengal in terms of its cultural evolution is both its language and physical features. Perhaps by the 10th century AD, the emergence of Bangla language enhanced the pace of cultural development and at the same time with the development of Bangla, popular perceptions of nature began to be recorded. The monsoon climate and huge water network provided a lifestyle, food habit, economic mobility and social imagination that contributed to the development of a distinct Bangali culture. In late ancient and medieval period, it was the tradition of intermixing among different groups that proved most formative in the emergence of the Bangali nation. The idea of 'tribal' culture perhaps developed later when it was found that pre-historic and ancient intermixing had not influenced those who did not enter the plain land in the more deltaic interior. In the medieval period, the idea of Bangaliness was beginning to be shaped through further development of Bangla language and literature which culminated in colonial modern period. But the possibility of an enduring languagecentric 'national' development within greater Bengal Delta region ultimately failed as religion began to predominate over linguistic bond. Communal politics that ultimately loosened the linguistic bond of the entire Bangali nation, culminating in the formation of Bangladesh and West Bengal state of India, have been deeply researched and documented. It is largely believed that Hindu and Muslim middle class leadership have fomented Hindu-Muslim antagonism to secure political support on communal basis. But, there are reasons to believe that the failure of national integration between the two wings of Bengal may have an ecological connotation too. This region was colonized and culturally engaged by a majority of 'lower caste' Hindus as well as Muslims, while the upper caste Hindus, as well as upper class

⁷⁴ The content of paragraph is extensively drawn from Mohammad Yusuf Siddiq, 'Islam and ecology: with special attainment to the environmental issues in Bengal', Lecture presented at the Asiatic Society of Bangladesh, 2005.

Muslims, failed to do so. This alienation of an important segment of people to the riparian, fluid deltaic environment of Bangladesh sown the seed of divisiveness that eventually culminated in the partition of Bengal. Though Bangla remains the language of the majority in both Bangladesh and West Bengal, the ways cultural response to nature, aesthetic imagination, cultural symbols and vocabulary as well as economic activities have been expressed remain relatively different, if not conflicting.

While the environment has played important formative roles, it must be noted that it is fast losing its power to creatively inform social and cultural development. Environment is changing to the worse and this has remarkable bearing on social modes of interaction and the process of cultural reproduction. Among natural disasters occurring annually in Bangladesh are flooding, cyclones and storm surge, erosion, landslide and earthquakes. But the teleology of environmental insecurity induced by climate change and relatively disadvantageous location of the country has been overshadowed by the impact of modernising interventions into the ecological regime of the region. Since the late nineteenth century, the process of ecological decline started through unsustainable expansion of the railway in the highly fluid deltaic landscape, construction of bridges and embankments by frustrating the natural flow of the river systems. In the post-colonial period, large-scale dams, barrages, highways, multi-purpose bridges, appropriation of riverbeds by locally influential people and industrialization have added new dimensions to ecological dislocations. Excessive and mechanical exploitation of underground water has left about seventy per cent of drinking and irrigation water contaminated by toxic arsenic, leaving about 40 million people at risk. Rapid globalization has brought about a more drastic change in the environment. The growing export markets for fish, shrimp and leather, for instance, mean depleted stocks, less biodiversity and fewer forests. A particular case in Bangladesh has been the damage of the eco-system due to accidents relating to exploitation of natural gas, which has left a large tract in northeastern Bangladesh infertile and dead of biodiversity. Thus both natural factors and man-made development interventions have contributed to large-scale ecological dislocations. Among the visible social indicators are the growth of unemployment (at the current rate of 30 to 35 per cent), landlessness, impoverishment, rural out-migration, malnutrition and shortage of food supply. A large proportion of day-labouring, landpoor and landless people regularly march towards expanding urban areas for alternative livelihood. The growth of cities has been specially linked to substandard living and complicated livelihood alternatives for many. Mass movement of refugees and internal displacement of people thus create congenial conditions for social unrest and conflict, resulting in serious problem of governance. A good example of the dual impact of climate change and modernist development interventions is monga or nearfamine condition in northern Bangladesh. Every year, due to drought and riverbank erosion and consequent non-availability of work, between late July and early November, a substantial proportion of rural population suffers from lack of employment and food. Among the affected people who make unholy pilgrimage to cities and towns, some live by pulling rickshaws and some by associating themselves with socially disruptive activities. It is, therefore, no wonder that a majority of the human agents involved in socially unacceptable activities hail from those areas which are mostly affected by environmental deterioration.

⁷⁵ Iftekhar Iqbal, 'Radicalism in Bangladesh: an ecological perspective,' *The Daily Star*, Dhaka, 23 June 2006.

Deterioration in the environment and ecology is fast affecting not only social and political life but also aesthetic diversity in creative expressions. So is the case for cultural connotation of nature. Creative modes of expressions are often enriched by the existing biodiversity from which the writers take their materials. For instance, in the past there had been more than six thousand varieties of local rice, but due to HYV monoculture the local varieties have disappeared at an alarming rate and only 100 varieties are at present estimated to remain. Same applies to fisheries and forest resources since local knowledge base is eroding faster than that of natural resources. Therefore, when poet Jasimuddin wrote long time ago about 'binni dhaner khoi', he meant that special variety of binni rice that were specially suited to the preparation of khai (parched rice). Since these varieties are probably non-existent by now, so it is probably not possible for a creative writer to skilfully deploy such word as a special signifier of an aspect of biodiversity in Bangladesh. From a larger perspective, it will be seen that the broader monsoon environmental complex in which cultural development of Bangladesh took place are losing its formative forces.

Between the important records of formative roles of the environment in the cultural development of the region and socio-cultural predicaments arising out of the deterioration of the same, a valid question that ensues is: how can we restore the linkages between the environment and culture in Bangladesh? There is no easy answer to such questions, but a critique of environmental debates should inform us about the nature of the problem and possible remedies. Environmental debates, since its emergence, have been mainly concerned with the looming ecological crisis on the earth, water regime and biosphere and with the ways to meet such crises. Though the idea of human well being has been attached by default to this environmental discourse, human response to and his/her temporal reading of the various forms of ecological problems have not been adequately documented. Man's place and voice, which are integral to his cultural understanding of the world, have been minimised in this discourse particularly because it has been largely informed by an approach that equates man's well being with scientific categorization of nature and its crisis in view of achieving 'sustainable development'. This has led to the emergence of global scientific committees and policy bodies and international NGOs, which in their turn have often failed to appreciate the micro-mechanism of environmental problems that demands deeper understanding of local cultural and social dynamics. As a result, many of the global goals of sustainable and equitable development have not been successfully met at the ground level. It is, therefore, necessary that we repose ecological issues in a broader social and cultural framework.