TOWARDS A RIVERINE PHILOSOPHY: THE GANGES IN ECOLOGICAL CRISIS

SHRISHTEE BAJPAI

Abstract

A sacred river is destroyed and polluted despite the injunctions in *dharma*, reflecting decaying countenance of *adharma*. Secular discourses have marred the sacred by deeming it irrational and have disassociated it from nature. In spite of programmes and funds, the Ganges still runs polluted. This paper focuses on understanding the reason for the above contradiction by delving into the philosophy of deep ecology. It calls for urgent re-orientation of mindsets and a radical transformation of practices.

Introduction

This article examines the paradox of how a river that is considered sacred and is revered throughout the country is also subjected to deep ecological crises by the populace. I attempt to articulate the Hindu philosophy surrounding the Ganges. I also explore possibilities of rethinking the philosophy of water in light of its natural and sacred histories. This article looks at the ecological crises of the river in terms of physical and socio-physical aspects (Stone 1972). Such a focus appeals for radical behavioural changes, a logic that goes beyond just institutional changes. It calls for changes in the entire logic of how nature is perceived and involves an ethical transformation. It does not go into the institutional aspects for resolving ecological crises of the river but examines the need for a focus on socio-physical aspects.

First, the essay gives an account of the Hindu philosophy of river Ganges, looking at how Ganges emerged as a goddess in Hindu tradition. It traces the divinity and sacredness surrounding the river and what Hindu philosophy offers us when we think about ecological justice for the river. Second, it deals with the intersection of sacred and secular discourses and how ecological crises get manifested in these discourses. Here, an ecological crisis is understood both from the perspective of actual pollution and damming of the river and the water laws in India. Finally, it provides an account of how deep ecology

Shrishtee Bajpai has a Master's degree in Development from Azim Premji University. Currently, she is working as Research Associate- Alternative practices and Visions in India, with Kalpavriksh- Environment Action Group, Pune. She can be reached at shrishtee bajpai 13@apu.edu.in.

and Hindu philosophy can help us rethink the way Ganges is represented and provide a recourse away from the modern, secular discourse.

When discussing the sacred and secular discourses, I have only dealt with Hinduism and not with any other religion. The essay invokes religion not in a politicised manner but uses its legitimacy among the people to revamp the way ecological crises are manifested in India. I have tried to imagine an alternative mode of thinking about the river so that ecological justice is ensured for it.

Hindu Philosophy of Ganges

In the Hindu tradition, Ganges is referred to as a goddess. David Kinsley (1998) notes that in the Hindu tradition most rivers are regarded as goddesses. The river holds an eminent place in the Hindu tradition and has the largest number of pilgrimage sites on its banks. There are many mythical stories around the origin of the Ganges. The oldest of all them is about the restoration of the 60,000 sons of King Sagara. The lineage of King Sagara was dullwitted, and in the process of searching for their father's horse, they disturbed sage Kapila. In anger, Kapila burned all of them to ashes and ruined the entire kingdom. Descendants of Sagara, in spite of various ascetic efforts, were unable to reinstate their incinerated forefathers. It was only when the saintly Bhagiratha, the great great great grandson of King Sagara, went to the Himalayas and did penance for centuries that the Ganges appeared in bodily form and granted his wish to come down to earth and moisten the ashes of Sagara's 60,000 sons. But there had to be someone or something to control the river otherwise it would destroy the earth. Siva was persuaded to receive the Ganges and control it by taking it on his head. It was believed that the mighty fall of the river could only be controlled in the tangles of Siva's hair. In Siva's hair, the Ganges got tempered and divided into many streams and flowed in different directions, sanctifying the areas through which it flowed. The main artery of the Ganges moistened the ashes of Sagara's sons, who were purified and freed to make their journeys in their father's land.

There are various other stories surrounding the emergence of the river Ganges. For instance, it is believed that the Ganges emerged from Lord Vishnu's foot. In another version, it is believed that Vishnu entered Brahma's pot that contained the Ganges, after listening to a sublime song of praise, and in turn sacralised the river.

These myths surrounding the river Ganges signify the sacredness and divinity of the river. Her association with important male deities such as Brahma,

Vishnu, and Mahesh makes her even more sacred and adds weight to the myth that the Ganges emerges from heaven and is divine. The Ganges in its physical form is merely one aspect of its divinity and is just one form of the cosmic river. The myths suggest that river's divinity and sacredness is transcendental.

Another important aspect that explains the reverence for rivers in the Hindu tradition as sacred and divine is the belief in the purifying ability of Ganges. Water, in the Hindu tradition, is believed to have an intrinsic characteristic of cleaning pollution and impurities (Kinsley 1998). There is a strong belief that the motion of water can remove the impurities of the world and the sins of human beings. A mere sprinkling of water drops can remove impurities, so when it comes to a sacred river like the Ganges, it is believed that the river can cleanse the entire world (Alley 2007). The reverence for the river is based on the idea that the mightiness of the river is beyond mere impurities of this world and that it would remain uncontaminated by the pollution on the earth. In fact, when descending from the heaven, the river washes away all the accumulated impurities on the earth. The Ganges, alongwith other rivers like Yamuna and Cauvery, is believed to be purifying the earth and its inhabitants for centuries, making these rivers highly revered.

The Ganges is preeminent among all the sacred rivers. Various hymns glorifying the river repeatedly emphasise the purifying powers of the river. The *Agni Purana* explains that bathing in the Ganges is an experience similar to being in heaven—it purifies the soul and cleanses the body. To die, while being immersed in the Ganges is regarded as resulting in the attainment of *moksha*, the ultimate spiritual liberation (Nelson 1998). The *Brihaddharma Purana* has a story glorifying the Ganges in which a sinful merchant is excused for his sinful activities because he lived with a merchant who used to bathe in the Ganges (Kinsley 1998). The *Mahabhagvata Purana* tells the story of a robber who was sentenced to death and sent to jail but eventually attained *moksha* and reached heaven because he ate a jackal who drank the water of the Ganges (Nelson 1998). The Ganges is considered as an intermediary between heaven and the earth. She is a continuous liquid that connects both the worlds and creates a pure relationship between them.

In the Hindu tradition, the Ganges is also regarded as *tirtha*, a sacred place for crossing over from one place to another, allowing for a movement from earthly realities to divine spaces. The Ganges is believed to be a space that facilitates such divine transcendence, which is unconditioned in the conditioned human existence (Nelson 1998). The Ganges is assumed to flow

into three worlds (Triloka–Patha–Gamini), a liquid connecting all spheres with reality and providing a sphere where one can transcend from one world to another or transcend human limitations. As Diana Eck writes "It is because the Ganga descended in her avatarana that she is a place of ascent as a tirtha" (Eck 1982). The currents and the rhythm of the river originate from heaven by coming into contact with gods like Vishnu and Siva. Her divinity connects human beings with divinity and moistens the earth with heavenly waters.

The Ganges has redemptive and liberating powers. It is believed that pouring few drops of the river's water in the mouth of a dying person can result in ultimate liberation. It is believed that dying near the banks of the river will lead to redemption. Varanasi is a fascinating site to observe this—people in thousands throng to the city in the belief that the Ganges can provide a comfortable and accessible space to transcend the bondage of life on earth to liberation in heaven (Alley 2007). Varanasi is considered to be Siva's universe as well as the beginning and the end of human civilisation. Ganges is Siva's co-wife, and this highlights the power associated with the river and the reverence for it in Hinduism. Feldhaus notes that rivers and mountains are considered as sacred in India, which is why most pilgrimage sites are located close to rivers and mountains.

The river Ganges is viewed as sacred because of two primary reasons: first, it has the generative power of a mother; second, it has the power to purify. The poet *Jannatha* who was an outcast and declared impure by everyone in the community for falling in love with a Muslim girl writes in reverence for the river Ganges for accepting him and enveloping him in her womb, when everyone left him.

I come to you as a child to his mother.

I come as an orphan to you, moist with love.

I come without refuge to you, giver of sacred rest.

I come a fallen man to you, uplifter of all.

I come undone by disease to you, the perfect physician.

I come, my heart dry with thirst, to you, ocean of

sweet wine. Do with me whatever you will.

Intersection of Sacred and Secular Discourses on the Ganges

This section examines the ecological crises surrounding the river Ganges in light of sacred and secular discourses. This will compel us to look at a revised conception of the self that derives from Arne Naess's (1989) deep ecology

and enable us to deconstruct the restoration techniques adopted for cleaning the Ganges.

"Sacred is referred to as classification of things, persons and places involving regulation of behaviour or to qualities emanating from those things themselves or to an experience of state of mind marked by characteristics such as awe, astonishment, fear etc." (Ivakhiv 2005). It transcends all expectations and rational capacities; it is beyond rational calculations and gives a sense of divinity. Sacred is considered as some transcendental reality, something that is supernatural or divine and is confronted by religion (Evans 2003). It conveys a complex and dynamic relationship with something that is beyond the imaginable reach of human beings. It is a complex set of feelings comprising fear as well as admiration. Sacredness permeates beyond the reach of an individual and encourages the subordination of the individual or self-interests (Evans 2003). It expands the horizons within which man exists and puts him in contact with the life forces that connect him to the universe. There is a sense of awe and ecstatic joy that a man experiences in the sacred.

Modernisation has delinked and disarticulated the previously established spaces of religion and sacredness and has individualised the notion of religion. Religion has become a distinct domain, separate from the scientific, political, juridical, and other spaces of modern life (Ivakhiv 2005). Postmodernisation has exacerbated these trends and, in fact, offers religion as a product in the marketplace. In such a scenario, individual spirituality gets extremely diffused.

Against this backdrop, how does one understand what has gone wrong with the river Ganges? Why does the river suffer from deep ecological crises? What can be done to restore the river? Can we get answers from Hindu philosophy by seeing it through the lens of deep ecology?

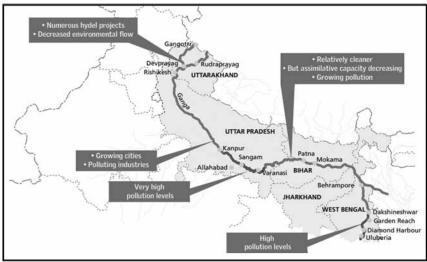
Ecological Crises of the River Ganges

In spite of the high reverence and sacredness associated with the river, the Ganges has become a site of ecological degradation notably because of excessive pollution and damming of the river. A recent report published by the Centre for Science and Environment suggests that there are three central problems associated with the pollution of the river Ganges:

- The inadequate flow of water into the river.
- The exponential quantum of untreated waste and sewage dumped in the river.

• Lack of enforcement against the industries that are the source of excessive pollution in the river.

The Ganges passes through five states, covers 26% of the land mass of the country, is heavily dammed in the upper reaches, and is excessively polluted in the plains. The map below gives an account of the physical flow of the river. This article elucidates the river's ecological crises along this physical flow.



Source: (Narain 2014).

Due to excessive damming along the Ganges, the river suffers from inadequate flow of water along its course. According to various reports, the Ganges is in serious threat by the 600 dams that are either operational or under construction. Dams affect the natural flow of the river and have a cascading effect on the marine life and biodiversity of the river as well as the entire natural system around it. There is also the danger of flooding in the downstream areas. Damming requires water diversion, and the diversion of the Ganges water has resulted in reduced surface and ground water, and has reduced the salinity of the river.

The first Ganga Action Plan launched in 1986 by Prime Minister Rajiv Gandhi had one main objective—the abatement of pollution of the river Ganges. The second phase of the project expanded the plan to other tributaries of Ganga—Yamuna, Damodar, and Gomti (Narain 2014). The main sources of pollution of the river as reported by the Central Pollution Control Board (CPCB) are urban liquid sewage waste, industrial liquid waste, and solids and liquids

from practices such as bathing, washing and immersing dead bodies in the river (Alley 2007). Water quality is determined in terms of four parameters: (i) dissolved oxygen (permissible limit: 5mg/l; actual: 7mg/l), (ii) biological oxygen demand (permissible limit: 3mg/l; actual 12–14mg/l), (iii) chemical oxygen demand (permissible limit: 250mg/l; actual: >250mg/l), (iv) faecal coliform (permissible limit: 500–2,500 MPN/100 ml; actual: 88,000 MPN/100 ml). This data suggests that the pollution level in the river Ganges is alarming as it has crossed its threshold (Kiran 2012).

M C Mehta, an environmental lawyer and activist, filed a writ petition in 1985, alleging that despite existing legal codes and rules, the government has not taken significant steps to curb the pollution of the river. Mehta used a judicial remedy, mandamus, to prevent the municipal corporation and state leather tanneries of Kanpur from disposing harmful domestic and industrial effluents in the river (Alley 2007).

About 30 million dead bodies are burnt on the banks of the river in Varanasi alone in just two ghats, resulting in the generation of 100 tonnes of ashes every month. All this gets directly deposited in the river. Half burnt bodies and animal carcasses are also dumped into the river, increasing the siltation, weed growth, and generation of pathogenic bacteria and fungi (Ahmed 1990). According to the CPCB, 2,723 million litre sewage is generated every day in 50 cities located along the banks of the Ganges, and this adds to 85% of the river's pollution. Various existing sewage treatment plants are not functional, with their treatment capacity being inadequate or very poor. In 2013, the CPCB inspected 51 out of 64 treatment plants and found that 60% of them did not have the required treatment capacity and 30% of them were completely non-functional. The problem also lies with the underestimation of sewage treatment, which is why the treatment capacity falls short of the requisite (Narain 2014). For example, the actual discharge of water is 6,087 MLD, which is 123% higher than the estimated discharge of water. In most of the major cities through which the river passes, such as, Varanasi, Kanpur, and Allahabad, there are no proper drainage systems with 75% of the waste directly draining into the river (Narain 2014). The Kanpur-Varanasi stretch is the most polluting and contributes majorly in the river's pollution. About 2,000 MLD waste water is discharged into the river, which is almost half of its total load. BOD (Biochemical Oxygen Demand) load is also highest in this stretch and together adds up to 94% of the total BOD load of the river, and this load is contributed by just 33 major drains in this stretch (Narain 2014). The river bleeds in these stretches because these cities do not have proper sewerage networks. The Ganga Action Plan has drastically failed due to various reasons including exponential population stress, power cuts, and lack of funds with the municipal corporations to even run the existing systems. As a result, cities like Kanpur that have an installed capacity of 217 MLD actually discharge 417 MLD of waste, with actual major outfall of 600 MLD (Narain 2014).

The next major cause of pollution is the huge amount of industrial waste dumped in the river. Small-scale industries dump huge amounts of toxic and noxious chemical wastes into the river. The major crises arise because these industries lack enough funds to establish adequate technologies to deal with the pollution. Uttar Pradesh itself generates 764 MLD of industrial waste and 501 MLD of waste water. Excessive pollution has brutally hampered the flora and fauna of the river as well as its entire natural system, making this sacred river unfit for even reasonable usage.

The Ganges is the river that is excessively dammed and as a result has dried up. In the upper reaches of the country, the Ganges is a playground for engineers. About 70 projects have been proposed on the river to extract 9,000 megawatt of energy (Mirza 2005). The key tributaries will be modified in building these projects through diversions into channels and reservoirs. This means the flow of the river will be modified or re-engineered, which holds the risk of the river turning into an engineered drain without enough water. This issue has a major concern because authorities are not concerned about the ecological flow of the river and are ready to utilise every single drop and suck the river dry. Any opposition to such projects is always looked at in terms of financial and energy losses. Nobody is concerned about the ecological flow of the river, the ecosystem of the river, and the availability of the river for the crucial purpose of sustainable living. The inter-ministerial committee headed by B K Chaturvedi recommended that 30% of the ecological flow needs to be maintained, but less than 10% is provided as the ecological flow in the design of hydroelectric projects (Narain 2014).

The ecological crisis elucidated above is viewed differently by sacred and secular discourses. The problem lies in the way degeneracy is viewed in sacred and secular discourses, which results in somewhat contradictory and perplexing trajectories in mitigating the problem.

Sunderlal Bahugana has been a key figure protesting against the Tehri Dam construction and commercial forestry, fighting for the protection of a sacred environment (Alter 2001). He argues that the Industrial Revolution has led to a moral degeneracy of the society, where markets, technocrats, and experts are like priests in modern temples. Shiva has pointed out, "Temples

of ancient India were substituted by dams, built to cater to capitalists and industrialist to acquire western water management" (Shiva 1989). Declining respect for traditional rituals and the idolatrous propagation of religion has withered away the sacredness of the river.

The ideas of sacred purity and cleanliness are sometimes interchangeably used and, at the same time, also possess varied interpretations. What Brahmin priests mean when they talk in these terms is very different from what government officials mean. Impurity and ablution of the the world's impurity refers to a concept of transcendental impurity in Hinduism, whereas pollution refers to physical impurities (Alley 2007). Therefore, as per Hindu philosophy, the Ganges may enter a temporary state of uncleanliness but still remain pure. The *Siva Purana* make numerous references to proper conduct in relation to the river, for instance, prescribing that people conduct their everyday activities such as brushing of teeth, spitting, and defecation at a distance away from river banks. While sacred texts have such broad prescriptions, everyday behaviour does not conform to these in each and every case. To meet the categorical ideals, it becomes important for governments and authorities to mend the disorderly nature of managing these practices (Alley 2007).

Puja and pilgrimage are not tied to civic ethics or the physical effects that they may produce. Colonial laws were devoid of scientific measures, and were thus inadequate, whereas modern laws used in global environmental protection and conservation projects have relied on a more rational model of legal system. Alley (2007) argues that the immense stress on technical solutions to clean the Ganges has led to a disenchantment among the *sadhus* and *sanths* regarding the cleaning of the river. Bureaucratic, scientific, and technocratic solutions devised for waste management have led to a complete disillusionment among the religious communities (Alley 2007).

Mawdsley (2005) argues that even religion has acquired political connotations. The opposition of the Vishwa Hindu Parishad (VHP) towards the Tehri Dam is based on political grounds and is not about protecting the sacredness of the river. The VHP argued that if the Tehri Dam collapsed, it would kill thousands of Hindu pilgrims and residents. This kind of mobilisation is problematic because it leads to obscuring the ecological crises surrounding the river (Mawdsley 2005). She claims that ideological manipulation can badly hamper the success of environmental movements.

Thus, in the light of the preceding discussion, we see that corrupt religious, cultural, and political practices (of the secular world) have diluted the divinity and sacredness of the river, and this dilution has then resulted in

the pollution of the river. Confusion between ritual impurity and material dirtiness affects in the way the Ganges is polluted and the way that pollution is viewed. The morality and ethics in the Hindu tradition have gone through considerable changes and due to a simultaneous process of modernisation and industrialisation, the concepts of purity and impurity (linked with sacredness) have lost their significance. Ritual impurity is different from pollution and this difference gets lost in modern discourses.

Water Laws in India and Crises

The section briefly discusses the inherent discrepancies in water laws in India to exemplify the crises surrounding the river Ganges.

The colonial British government used the domain of law to expand its power over natural resources. Colonial authorities tried to complicate indigenous rules of management of water resources. Colonial law was based on an inadequate understanding of indigenous rules, was divorced from Indian life, and played the role of legitimising British rule (Galanter 1989). Religious interpretations by colonial officials created strong distinctions between the sacred and the secular. To assert the civil order over the divine order ,the interpretations adopted by colonial officers were biased towards legitimising the former. Alley (2007) alerts us to how technologies of objectification and the domain of law were used by the British to expand their power over the resources of ruled communities. The British gained control over the knowledge of indigenous systems and resources and used rationality to settle the disputes and access rights. Knowledge exerted its own disciplinary intentions and administrative control over natural resources, such as the Ganges, was normalised (Alley 2007).

The decision makers and managers through their constituents such as the ministries of environment and forests, water resources, and urban development; pollution control boards, and water quality assessment authorities have tried to mitigate the damage to the river but not incorporated democratic decision-making and processes or participatory functioning. The emphasis is solely on the infrastructure and finances and not the governance-related component of river management or an assessment of the role of communities whose lives are completely dependent on the river. So even the idea of treatment plants that are functional has not been implemented. There is no mention of the river as an entity that should be involved in the decision-making process. The National Ganga River Basin Authority (NGRBA), which was initiated in 2009 by the United Progressive Alliance (UPA) government, makes no mention of

the hydropower projects that are built on the river.

There is no legal or institutional mechanism in India to ensure that when these projects are built, the perennial flow of the river is maintained. The Ministry of Environment and Forests has no policy that takes care of the preservation of rivers and ensures that fresh water flow is maintained in the river. No development policies in India have ever focused on improving the conditions of rivers and maintaining their ecosystems. The National Water Policy accords maintaining ecosystems as its fourth priority but the policy is fraught with contradictions, for instance, water is supposed to be diverted to the areas where there is a water shortage. With these persistent inherent contradictions, it becomes extremely tedious to think of a policy scenario that will talk for the legal rights of rivers.

Hinduism, Deep Ecology, and Restoration of the Ganges

This article is an attempt to draw out a philosophical understanding of the ecological crises of the river Ganges. I will now draw upon Arne Naess's (1989) concept of deep ecology and its connection with Hinduism and see how it helps us to understand the philosophical implications of what is currently happening to the Ganges. This section attempts to articulate the view that the Ganges is not merely an object but an assembly of references connecting humans and the world.

Deep ecology is the central idea of *ecocentrism*, according to which intrinsic importance should be given to nature. The central idea is that the bio-rights of species and unique landscapes should remain unmolested. The deep ecology movement shows a lack of faith in modern large-scale technology and its associated demands on expertise and anti-democratic institutions. It believes materialism for its own sake is wrong and the idea that economic growth can be geared to provide for the basic needs of those below subsistence levels is false (Rothenberg 1989).

The concepts of self-realisation and identification are core components of the deep ecological movement. Identification is a part of self-realisation, the process that leads to the creation of the ecological self. Christian Diehm's (2007) idea of "identification as kinship" can help us understand the biospherical net of intrinsic relations with nature.

A model of nature where we fully exist with awe and reverence for the world around us will help develop and articulate basic human intuitions about the nature. According to Naess (1989), the perspectives and means of reaching

an agreement should not be lost in oneness. The environmental movement will be successful if a concise set of principles can be shown to be derived out of a variety of worldviews and backgrounds. The norm of self- realisation should not to be limited to one's ego but should extend to an understanding of the widest self and include all (Naess 1989). Self-realisation does not have to necessarily be self-centred. This self-realisation can also derive from the Hindu philosophy that holds reverence for nature. Sacred manifestation of the restoration of the Ganges can possibly help us transform the way we think about the Ganges per se. A self-realising individual would be a unit of survival and that unit of survival would be an organism in its environment. If the environment fails to survive, so does the individual. A local environment could in itself be a self-realising system and in turn be part of a larger self-realising system. This would involve delving into the concept of the self-realising individual and also the intrinsic value that such an individual holds (Naess 1989).

This understanding of the self then sees destruction of nature as self-destruction. Mathews (1991) argues that when we expand our self, we realise that when we destroy the environment, we actually destroy our own self. This leads us to the basic element of deep ecology that we have certain duties towards nature and that nature is entitled to moral *consideration* (Sprigge 1992). This moral consideration comes from the understanding that "this river has some tendency to act so as to preserve itself", and is henceforth entitled to moral consideration (Mathews 1991).

Hinduism gives us a fertile ground to think about the restoration of the Ganges. Chapple (2000) notes that Hindu religion is based on karma and individual ego, viewing purification in terrms of harmony with the natural world. The normative values in the Hindu tradition are not just centred on human beings but include all sentient beings and inanimate things such as rivers and mountains (Bilimoria 1998). The principle guiding outlook of the Hindu tradition is that the highest good is identified in a harmonious relationship with the natural world and cosmic order. The moral order should correlate with the natural order to attain meaning in life and make self-realisation possible. Both Atharva Veda and Rig Veda elucidate the intrinsic value and moral standing of all beings and the natural world. From uniqueness of the world to the complex understanding of the unique whole, they emphasise the mystical and magical interdependence of everything on everything else (Bilimoria 1998). This suggests that Hinduism has been intricately connected with the central concerns of the deep ecology movement. Something acquires sacredness when elements, species, or bio-organisms make contributions to fulfil the larger scheme of things and therefore become elements of moral consideration (Dobson 1992).

The Ganges is sacred but this gets contradicted in the scientific ecology that considers it as a mere object (Mary Evelyn Tucker 2002). Divinity associated with the river marks her as a goddess who possesses the power to purify, nurture this world, and embody the whole world. However, such a moral consciousness is seen as falling into the ambit of irrationality in secular traditions. As mentioned earlier, of the *Siva Purana* gives various references for conduct near water bodies and directs people to distance human activities away from the river and thus highlights the spatial benchmark that needs to be maintained to keep uncleanliness away from the river (Alley 2007).

This objectification of nature has acquired a dominant position in modern discourses. Bruno Latour (2009) notes that scientists by understanding the laws of the non-human, non-animal world act as mediators between nature and society. This gives them the authority to represent the mute nature when humans are perplexed about nature (Latour 2009). In the discourse of industrialisation and modernisation, damming and pollution of the river are understood in very distinct terms and the Ganges is recognised only as a natural object. For engineers building the Tehri Dam, the Ganges is merely an object of the project, and they are concerned only with the economic viability of the project.

What is essential is that thinking about rivers should come first before human needs. Technologies and management of the river should stem from rootedness of place and religion. Thus there is a need to reorient the ways in which we are currently thinking about the environment. The virtues of technological largesse have acquired a central position, and it is now time for us to think over environmental ethics and inculcate ecological values to resolve the plethora of modern environmental crises that secular India is facing.

The article has examined the reasons for the paradox as to why in spite of high reverence for the river Ganges, it is still highly polluted. It has traced the sacredness and profanity associated with the river in Hindu philosophy and tried to show that despite the sacredness associated with the river, secular discourses have tainted the ecology of the river. I have shown how in the changing world, challenges of industrialisation, modernity, globalisation, and a rapidly expanding liberalised economy have hampered the way the Ganges is understood. The article suggests that the Ganges has been subjected to ecological injustice, and to mitigate this, institutions need to internalise the

idea of deep ecology that resonates with Hindu philosophy. This would mean that institutions are imbued with the idea of ecological justice and that the river's intrinsic value is recognised by the institutions.

References

- Ahmed, S (1990): "Cleaning the Ganga: Rhetoric and Reality", Ambio, 19(1): 42-44.
- Alley, K D (2007): On the Banks of the Ganga (Michigan: University of Michigan).
- Alter, S. (2001): Sacred Waters: A Pilgrimage up the Ganges Rivers to the Source of Hindu (New York: Harcourt, Inc.).
- Arnold, D (1989): "The Ecology and Cosmology of Disease in the Banaras Region", in S B Freitag (ed), *Culture and Power in Banaras: Community, Performance, and Environment, 1800–1980,* (Berkeley: University of California Press), pp. 246–67.
- Bilimoria, P (1998): "Environmental Ethics of Indian Religious Traditions", in D E Cooper and J A Palmer (ed), *Spirit of the Environment: Religion, Value, and Environmental Concern* (London: Routledge), pp. 1–14.
- Chapple, C K (2000): *Hinduism and Ecology: The Intersection of Earth, Sky, and Water* (New Delhi: Oxford University Press).
- Diehm, C (2007): "Identification with Nature: What It Is and Why It Matters", *Ethics and the Environment*, 12(2): 1–22.
- Dobson, A (1992): Justice and the Environment. (Oxford: Oxford University pressPress).
- Eck, D (1982): Banaras: City of Light (Columbia: Columbia University Press)
- Evans, M T (2003): "The Sacred: Differentiating, Clarifying and Extending Concepts", *Review of Religious Research*, 45(1): 32–47.
- Feldhaus, A (1995): *Water and Womanhood: Religious Meanings of Rivers in Maharashtra* (New York: Oxford University Press).
- Galanter, M (1989): Law and Society in India (New Delhi: Oxford University Press).
- Hammad, S (1992): *Development of Varanasi Sewerage System and Prevention of Pollution to River Ganga.* Varanasi: A seminar on Pollution Control of River Cities of India.
- Ivakhiv, A (2005): "Toward a Geography of 'Religion': Mapping the Distribution of an Unstable Signifier", *Annals of the Association of American Geographers*, 96(1): 169–75.
- Kinsley, D (1998): "Learning the Story of the Land: Reflections on the Liberating Power of Geography and Pilgrimage in Hindu Tradition", in D Kinsley, *Purifying the Earthly Body* of God: Religion and Ecology in Hindu India (Albany: State University of New York Press), p. 231.
- Kiran, R (2012): Case Study on River Ganges. Retrieved from Slide Share: http://www.slideshare.net/naarakshashi/case-study-on-the-river-ganga-by-ism-ravi-kiran-jp
- Latour, B (2009): Politics of Nature (Cambridge, Massachusetts: Harvard University Press).

- Mary Evelyn Tucker, C K (2002): "Hinduism and Ecology: The Intersection of Earth, Sky, and Water", *Journal of the American Oriental Society*, 122(4): 925–27.
- Mathews, F (1991): "Value in Nature and Meaning in Life", in F Mathews, *The Ecological Self* (Great Britain: Routledge), pp. 82–115.
- Mawdsley, E (2005): "Vishwa Hindu Parishad and Tehri Dam", *Worldviews: Environment, Culture, Religion*, 9(1): 1–24.
- Mirza, M M (2005): *The Ganges Water Diversion: Environmental Effects and Implications* (United States of America: Kluwer Academic Publishers).
- Naess, A (1989): Ecology, Community and Lifestyle (Cambridge: Cambridge University Press).
- Narain, S (2014): *Ganga: The River, Its Pollution and What We Can Do to Clean It* (New Delhi: Centre for Science and Environment).
- Nelson, L E (1998): *Purifying the Earthly Body of God* (Albany: State University of New York Press).
- Rothenberg, D (1989): "Introduction: Ecosophy T—from Intuition to System", in A Naess (ed), *Ecology, Community and Lifestyle* (Cambridge: Cambridge University Press), pp. 1–32.
- Shiva, V (1989): Staying Alive: Women, Ecology and Development (London: Zed Books).
- Sprigge, T (1992): "Review of Ecological Self", Environmental Values, 365.
- Stone, C D (1972). "Should Trees Have Standing? Towards Legal Rights of Natural Objects", in C D Stone, *The Unthinkable* (New York: S.CAI), pp. 3–57.
- Thakkar, H (2012): The People, Piety, Pollution and Politics of Ganga (New Delhi: Civil society).