

Ancient Indian Knowledge Given by River Ganga: A Study

Dr. Manisha Dwivedi

Professor, Dr. C V Raman University, Kargi Road, Kota, Bilaspur, Chhattisgarh

Maya Sharma

PRT English, DAV Public School, Gevra Project

Dist- Korba, Chhattisgarh

Abstract

**“The Ganga flows in man’s heart
Yet man is unable to take bath in it.”**

“Ma Ganga” or “Mother Ganges”, the purity lies in these two words. River Ganga is not a sacred place but it is a sacred entity. Aside from providing drinking water and irrigating fields, the Ganges River is extremely important to Hindu population for religious reasons as well. Ma Ganga is a symbol of faith, hope, culture and sanity. She is the center of ancient Indian scriptures: Vedas, Puranas, Mahabharata, Ramayana and many more. This is the world’s third largest river, formed by the convergence of the Bhagirathi River and the Alaknanda River.

The Ganges allowed civilizations to develop and flourish along the waterway for centuries. It has the civilization of Vedic period. The arrival of Aryans coincided with the introduction of Vedic, script. The Vedas originated from this time, and the Ganges civilization is often called the Vedic period. A wealth of literature of this period gives a glimpse of the social organization of the time, the first dominant activity was cattle breeding, and the cattle was main commodity. It is the complete river which emerges from the Himalayas and falls on Bay of Bengal. This is the national river of India. It has both scientific and spiritual significance.

Keywords- civilization, coincided, spiritual, commodity, breeding, originated.

INTRODUCTION

The River Ganga is a trans-boundary river of Asia, which flows through the nations of India and Bangladesh. It is the longest river in India. It has the second greatest water discharge in the world and its basin is the most heavily populated in the world with over 400 million people living in the basin. The history of Ganga in fostering culture and civilizations is appreciated through fostering innate culture in its basin, shifting of the Indus-Sarasvati basin civilization into its fold, and endorsing integration of cultures to develop Indian civilization. The Ganges alone drains an area of over a million square kilometers. Its widespread basin accounts for one-fourth of India's water resources and is home to more than 407 million Indians, or some one-third of

India's population. The Ganges basin, with its fertile soil, is a significant contributor to the agricultural economies of both India and Bangladesh. The Ganges and its tributaries provide a persistent source of irrigation to a large area, in addition to recharging the groundwater table all along their course. By supporting agriculture, animal husbandry and fisheries, tourism, river-based trade and transport, the river subsidizes significantly to the livelihood, food and dietary security of about one-third of Indian and two-thirds of the Bangladeshi population. This article challenges to present a macro view of the Ganges and provide a broader context surrounding its historical, spiritual, cultural and socioeconomic attributes and

considerations which often remain unharmed in scientific papers.

The river is also measured as “the lifeline of India,” as it delivers wide-ranging services encircling the transitions of water to food, energy to ecology, lives to livelihoods, social concerns to economic, and cultural deliberations to spiritual. Ganga is the most blessed river for Hindus, who call it Ma Ganga (mother Ganga) possibly because it grasps and nurtures billions of lives, counting humans and other terrestrial, aquatic, and amphibious entities. The many figurative meanings of the river across the Indian subcontinent are reflected by the two inspiring quotes of Pandit Jawaharlal Nehru, the first Prime Minister of the Republic of India, in his book “Discovery of India” (Nehru, 1946):

“The Ganga, especially, is the river of India, beloved of her people, round which are entangled her memories, her hopes and fears, her songs of conquest, her victories and her defeats. She has been a symbol of India's age-long culture and civilization, ever changing, ever flowing, and yet ever the same Ganga.

Ma Ganga is the symbol of India's notable past which has been flowing into the present and endures to flow towards the ocean of the future.”

Inventing in the Himalayas and flowing into the Bay of Bengal, the river exchanges a course of over 2,500 km through the northern highlands and plains of north and east India and Bangladesh. The Ganga basin, which also ranges into parts of Nepal, China and Bangladesh, comprehends unusual variations in altitude, climate, land use, flora and fauna, as well as the social and cultural life of the aboriginal people. The basin accounts for nearly 26 percent of India's landmass, 30 percent of its water

resources, and over 40 percent of its population. Because of its exceptional reputation credited to reasons that are geographical, historical, spiritual, ecological, sociocultural, and economic, the Government of India, on 20 February 2009, declared Ganga as the National River of India and created the National Ganga River Basin Authority (NGRBA) to safeguard the basin by protecting it from pollution and overuse (GOI, 2009). The runoff created by the Himalayan glaciers feeds several of Asia's greatest rivers including Ganga (Ganges), Sindhu (Indus), and Brahmaputra, providing water and helping the production of food for over two billion people (WWF, 2005, 2011a). Water from these rivers also feeds “hotspot” regions of documented in various reports prepared by the Irrigation Commission of the Government of India (1972).

ROOT AND SEQUENCE OF THE GANGES RIVER

The Ganga originates in the Himalayas at the convergence of the rivers Alaknanda, Dhauliganga, Mandakini, Pindar and finally Bhagirathi at Devaprayag. Bhagirathi is considered to be the main source stream. Gomukh (‘Gou’ means ‘cow’ and ‘mukh’ means ‘face’), the terminus of the Gangotri Glacier, situated at a height of 4255 m and about 18 km from the town of Gangotri, is the precise source of the Bhagirathi river. Alaknanda, another main tributary in the mountainous bounce, rises beyond Manna Pass at an altitude of 3123 m and about 8 km from Badrinath. From Devaprayag onwards, the river is known as Ganga in the Indian states of Uttarakhand, Uttar Pradesh and Bihar. At Pakur, near Farakka, Ganga starts distracting to form its distributary,

Bhagirathi-Hoogly, which goes on to form the Hoogly River, while the main branch of Ganga enters Bangladesh as Padma. In Bangladesh, it flows 212 km further east to join with Jamuna at Gualando. It then endures as the Padma River for another 100 km to its confluence with Meghna River at Chandpur, before merging into the Bay of Bengal by forming a 354 km wide delta (FAO, 1999). The Ganga navigates a distance of ~2510 km within India from its source to its mouth (Ganga Sagar) in the Bay of Bengal, draining eleven states of the country as it passes through. In her course, she is joined by many tributaries, the most important being Bhilangana, Alaknanda, Ramganga, Kali, Yamuna, Gomti, Ghagra, Gandak, Kosi and Sone.

ROLE OF GANGA IN HISTORY AND NURTURING OF CIVILIZATIONS

The history of the Ganga in nurturing culture and civilizations can be observed from three angles—the development of native culture in its basin, the shifting of the Indus-Sarasvati basin civilization into its fold, and the promoting of cultural incorporation to develop Indian civilization. The recent discovery of Mesolithic culture in the alluvial plain of Ganga is extremely noteworthy in this reverence. River systems have been the birthplace of civilizations all over the world. For centuries, water and the nature and passage of rivers have defined the rise and fall of civilizations. Ancient civilizations, like those of the Indus Valley (Harappan), Mesopotamia, Egypt and China occurred and thrived along important rivers—the Indus-Sarasvati, Tigris and Euphrates, Nile and the Yellow River, respectively. These rivers provided their human populations with the means to both

subsist and inflate. Consequently, the rivers became an indispensable part of the sociocultural and economic fabric of the local societies and pierced deep into the psyche of the people living in the surrounding areas. This phenomenon is more distinct in India, where the Ganga, Indus, Narmada, Kaveri, and other rivers represent the cultural identity conveyed through the ages and across groups.

The Ganga is as old as Indian civilization. For thousands of years, Ganga has been the only spectator of the innumerable changes that have designed Indian history, culture, and the life of its people. It was in this plain that the great kingdoms of Magadha, Gupta, and Mughals found their home. It was also the place which witnessed the creation of Jainism, Buddhism, Hinduism, and Sikhism, as well as the seeds of democracy disseminated by the formation of the first-ever republic state in the world.

The disintegration of the Harappan civilization, in the early second millennium BC, symbolizes the point when the center of Indian civilization shifted from the Indus basin to the Ganges basin (McIntosh, 2008). The Late Harappan period, from about 1900 to 1300 BC, saw the banquet of Harappan defrayal eastward from the Indus River basin to the Ganges–Yamuna doab the Indo-Aryan people and the Vedic period. This river system provided productive grounds for hovering crops of food grains, fruits, vegetables, and cotton. In addition, the Indus provided grazing lands for herd animals and, of course, a steady supply of fresh water. All of these local-level knowledge and practices, together with agro-climatic conditions, were beneficial to providing life-threatening ingredients for the development of the Indus River valley civilization in the

middle of the third millennium BC, more than a thousand years before the civilization of China. Climatic devastation and the desertion of the Sarasvati River, together with a number of other factors, are considered to be the cause of the collapse of Harappa civilization in the Indus Valley. After the failure of Harappa, the plains of the Indus were bypassed in favor of the far luxurious and more extensive lands in the basin of the Ganges River grid to the east direction.

There has been a phenomenal increase in research in the archeology of the Ganga Plain during the last three decades. The discovery of Mesolithic culture in the alluvial plain of the Ganga going back to 10,000 BC founds a distinct influence to our knowledge. Excavations carried out at a number of sites in the mid-Ganga Valley have shown that the Mesolithic people of the Vidhyas lived in huts made of trees, branches, and leaves. They oppressed the eatable wild grains for their consumption, which is evident not only from a good number of grinding stones from the excavated Mesolithic sites of the Ganga Plain and the Vindhya, but also from the evidence of wild rice from Chopani Mando. Current discoveries of the early farming culture of the region have verified that the Ganga basin was one of the early centres of agriculture in the world (Pal, 2006). The discovery also highlights the fact that Jhusi has been a cradle of human civilization from the Mesolithic age through to the thriving of the urban phase of the culture of this region. The current excavations at Jhusi confirm that civilization was born and developed at its own epicenter, the mid-Ganga Valley. Due to amalgamation of the two cultures, a social and political system evolved in which the Aryans dominated,

but various indigenous peoples and ideas were lodged and absorbed. The transition from the nomadic to the settled life, which began sometime in the seventh millennium BC in the Ganga Valley, was largely the result of an economic revolution based on the cultivation of certain food grains like wheat, barley, and rice, and the domestication of animals like cattle, sheep, goats, pigs, and buffalo. Additionally, the introduction of copper in about 3000 BC resulted in a spurt of development in every walk of life and a significant increase in the number and size of settlements.

The powerful empires like Maurya Empire to Mughal Empire made the Gangetic Plain a centre. (Wink, 2002). The first European wanderer to mention the Ganges was Megasthenes. He became an ambassador of Chandragupta Maurya in Pataliputra, India. Megasthenes (ca. 350–290 BC) was also the author of the book *Indica*. In his book, he mentioned that India possesses many rivers both large and navigable.

There are many centres of higher learning which originated at the Indus and Ganga basins. A comprehensive survey of education in ancient India—of the amazing oral tradition of India's literary heritage and its impact on Indian life—is documented by Scharfe (2002). Takshashila was booming at least several centuries BC, and continued to attract students from around the old world until the destruction of the city in the fifth century. The Vedas and the Eighteen Silpas or Arts, which included skills such as archery, hunting, and elephant lore, were taught, in addition to the institution's law school, medical school, and school of military science. Takshashila is perhaps best known because of its association with Chanakya, also known as Kautilya, the strategist who guided Chandragupta

Maurya and assisted in the founding of the Mauryan Empire. The Arthashastra (Sanskrit for The Knowledge of Economics) of Chanakya is said to have been composed in Takshashila itself. Vikramshila was another ancient Buddhist university founded by Pala King Dharmapala in the late eighth or early ninth century AD in the vicinity of Ganga. It prospered for about four centuries before it was destroyed, along with the other major centres of Buddhism in India around 1200 AD, during fighting between Bakhtiyar Khilji and members of the Sena dynasty. A description of Vikramshila is available in the writings of Taranatha, the Tibetan monk historian of the sixteenth and seventeenth centuries (Dutt, 1962). Nalanda was also an ancient centre of higher learning in the Ganga basin. It was a Buddhist centre of learning from the fifth or sixth century AD to 1197 AD. At its peak, the university attracted scholars and students from as far away as Tibet, China, Persia and Greece. The heavenly origin of Ganga finds mention in most ancient Indian literature. The episode of Bhagiratha Prayatra finds mention in Mahabharata's Vana Parva, Bal Kand of Ramayana, Brahmanda Purana, Padma Purana and in Bhagwat Purana. Generations after generations, this great story is retold in every Hindu household and children are stimulated to make similar expenses to achieve great causes. Besides Ramayana and Mahabharata, Vayu Puran, Agni Purana, Skanda Purana, Matsya Purana, Brahmanda Purana, Vishnu Purana, Devi Purana and Bhagvad Purana shed light on diverse aspects of the mighty river. The holy waters of the river Ganga play a vital role in Hindu ceremonies, in rituals of birth and initiation of marriage and

death. Many Indians depend on this great river for their physical, psychological and spiritual sustenance. Ganga is a perennial river and people have great belief in her powers of healing and regeneration. As a Goddess, she has moved among the great celestials of Hinduism; at times the child of Brahma, the wife of Shiva, the metaphysical product of Vishnu or mother to the Vasus and to Kartikeya. Ganga has been a cradle of human civilization since time immemorial. . Ganga known variously as Hiranyagarbha, Amritvahini, Tripathga, Patitpavini is deeply mingled with the Indian psyche and character. The role of Ganga in the birth and shaping of the Indian civilization has been recorded in the Vedas and in many modern works on the river. It would be no overstatement to say that the holiness and purity of the river is incomparable and unparalleled. It was on the banks of this great river that many beautiful Kingdoms and towns came up. It was here that a complex, attractive and live historical process of human interfacing was started in the dim distant past. It was on the banks of this mighty river that the Indian race discovered and nurtured its deep philosophical moorings. The cultural and religious significance of the Ganga is enormous. She is the centre of social and religious tradition in the Indian subcontinent and particularly sacred in Hinduism (Adel, 2001). In RV 1.116.18–19, there is mention of Jahnavi and the Gangetic dolphin in two adjacent verses. Later, three Vedas give much more importance to the Ganges (Thapar, 1971). This is in conformity with the shifting of civilization from the Indus to the Ganga Valley. In the Rig Veda the geographical focus was the Sapta-Sindhu (the Indus

Valley and the Punjab) with Sarasvati as the sacred river, but within a few centuries, Ganga became the sacred river. The mythology of Hindu tradition and the sacred geography of the land of India flow inseparably together. The Ganga is both goddess and river (Eck, 1998). In fact, the respect for Ganga is a part of Indian identity and the very symbol of Indian culture. Nothing else would qualify as a better symbol of the “Heritage of India” than the Ganga.

There are several legends and common beliefs associated with the descent of Mother Ganga. According to one legend, Mother Ganga is considered to be the daughter of King Meru, who is the epitome of the Himalayas. Meru had two daughters—Ganga and Uma, the ensemble of Lord Shiva. Another legend says that Ganga is the consecrated water in Brahma's water pot. Lord Brahma washed the lotus feet of Lord Vishnu and collected this water in his Kamandalu. Hence, Ganga is also called “Vishnupadi.” Being warmed by two members of the Trimurti (Brahma, Vishnu and Mahesh), Ganga became very sanctified. According to the Purans, Goddess Ganga used to exist only in Heaven. In order to bring down the River Ganges from paradise for redemption for the souls of his progenies who were cursed by a sage, King Bhagiratha offered prayers to Lord Shiva and his prayers were granted. This is why Ganga is also known as Bhagirathi. Ganga is also called Jahnavi for the reparations of Sage Jahnu. In Mahabharatha, she is depicted as the wife of King Shantanu as well as the mother of Bhishma.

Hindu mythology says ,” the Ganga River came down to Earth from the heavens, and as such, the river signifies

sanitization to millions of Hindus. It is supposed that the very sight and touch of Ganga are so commanding that all the iniquities of many past births are demolished, and taking a dip in Ganga is a sure way to gain the commitment of the Supreme Lord. It is a well-known Hindu belief that dying at the banks of Ganga is way to reach heavenly abodes. It is due to this belief that incineration performed at the banks of River Ganga or floating the cremation ashes of the departed in the river are common practices, and Ganga Ghats (banks) of Varanasi and Hardwar are the most prevalent burial sites of the Hindus. Gangajal or Ganga water is one of the important ingredients in Vedic rituals. Gangajal is held so sacred and holy that no Hindu ever dares to dishonor it and is grateful to speak truth if he holds the water. Many Hindus keep water from the Ganga in glass bottles as a sacred relic or for use in religious rituals. In Narada Purana, it is acknowledged that in the present Yuga of Kali, Ganga is of extreme importance and worship of Ganga is sure path to deliverance. For Hindus, the water curving in Ganga is “Gangajal,” not meant for simple drinking, domestic use, irrigation, or fisheries and hence not needing to meet any criteria or standards set by WHO or MoEF (Agarwal, 2008). Ganga water has often been observed to remain fresh for long periods of time and her exceptional, natural appearances have made her a charming subject of study for many systematic explorations. The putrefaction-resisting, selectively bactericidal qualities, and the bulk for immediate self-purification are some unique qualities of Ganga water. These qualities are not merely believed to be factual, but have been personally experienced by most Indians and can be

easily confirmed, enumerated, and compared in diagnostic laboratories. Unfortunately, very little scientific research has been carried out to test and verify the widely believed pollution-removing and self-cleansing powers of Gangajal, probably due to hesitations that any conclusions supporting such beliefs shall go against “Modernity,” while a denial might astound the foundational beliefs of the crowds.

The Sundarban is the world's largest lingering touching, biodiversity-rich mangrove ecosystem featuring environments for fish, shrimp, birds, and other wildlife, including the Bengal tiger. The forest also has enormous defensive and productive functions. Creating 51% of the total reserved forest estate of Bangladesh, the mangrove ecosystem subsidizes about 41% of total forest proceeds and accounts for about 45% of all ligneous and fuel wood yield of the country (Walkey et al, 1999). A number of industries (e.g., newsprint mill, match factory, hardboard, boat building, furniture making) are based on the raw material gained from the Sundarban ecosystem. Various non-timber forest products and plantations help generate extensive employment and income-generation occasions for at least half a million poor coastal population. Besides the forest's production functions, it provides natural protection for life and property of the coastal population in cyclone-prone Bangladesh. In 1987, the Sundarban National Park in India, and in 1997, parts of the Sundarban in Bangladesh, were decorated on

POLLUTION IN GANGA RIVER

Today, over 29 cities, 70 towns, and thousands of villages extend along the

Ganga banks. Nearly all of their sewage – over 1.3 billion litres per day – goes unswervingly into the river, along with thousands of animal remains, mainly cattle. Another 260 million litres of industrial waste are added to this by hundreds of factories along the rivers banks. Municipal sewage establishes 80 per cent by volume of the total waste deserted into the Ganga, and industries subsidizes about 15 percent. The majority of the Ganga pollution is organic waste, sewage, trash, food, and human and animal remains. Over the past century, city populations along the Ganga have grown at an incredible rate, while waste-control infrastructure has persisted moderately unchanged. Recent water samples composed in Varanasi revealed fecal coli form counts of about 50,000 bacteria per 100 millilitres of water, 10,000% higher than the government standard for harmless river bathing. The result of this pollution is an display of water-borne diseases counting cholera, hepatitis, typhoid and amoebic dysentery. An valued 80% of all health problems and one-third of deaths in India are attributable to water-borne diseases.

The pollution of Ganga and Yamuna is taking place mainly because of industrial waste, pollution and the non-degradable wastes that collected along the banks of these rivers. Pollution of these rivers is on the rise and is becoming a peril for the marine living beings as well as anthropoid.

CONCLUSION-

Ganga is indeed the most important river who has nurtured every one on her path. Our research facts to the need for suitable fundraising in order to make mandatory changes in the existing system. Once funding is assimilated, resources should be

engrossed on restoring mess handling plants that are previously built. Prominence should be put on safeguarding the treatment load matches the strains of the area, with margin for the unavoidable growing population. Funding must be capitalized in acquiring generators that allow treatment plants to run during the recurrent power outages. A mission force of competent scientists and engineers must work together to train more individuals on successively and protective the current systems in order to keep treatment failures to a minimum. This is a multivariable problem with no easy solution, however intended action must be a urgency for the Indian government in order to recover the lives of populations and the river ecosystem. Fast development and industrialization resulting in liberation of unprocessed or partially treated wastewater, coupled with massive abstraction of water for irrigation, industrial and local use, are the main causes of water quality deprivation in the Ganga River. The labors made to reestablish water eminence through the Ganga Action Plan were totally inadequate, due to fast growth in the urban population along the river and deficiency of possessions for action and conservation of the wastewater conduct conveniences created. Moreover, the focus of the Ganga Action Plan was constrained to growth of wastewater treatment facilities only; there were no efforts on water resources management, conservation or its careful use. There is a need to device a joined water resource management plan in the complete Ganga Basin.

Gangasagar is one of the most prevalent Hindu visit or tirtha in India and nowadays people not only from India but also from foreign countries visit this place. Every year a large number of people gather

here to worship the goddess Ganga. Every year thousands of pilgrims from India and overseas reach the southern part of West Bengal, at the union of the river Ganges to rejoice the Gangasagar Mela. This festival is celebrated on January 14 every year. Pilgrims come and take a dip in the Holy River Ganges, nearly 100 kilometres from Kolkata. The festival is celebrated as Makar Sankranti in northern parts of the country. Amidst of covid -19, this year also, it was celebrated with great enthusiasm by many people with all covid protocols.

WORK CITED

- [1] Das Subhajyoti. "*Cleaning of the Ganga*". Journal Geological Society of India. Vol.78, pp.124-130, 2011.
- [2] Mallikarjun, Y. "*Pollution Levels in Ganga Alarming*". The Hindu, 2003.
- [3] Rai Basanta. "*Pollution and Conservation of Ganga River in Modern India*". International Journal of Scientific and Research Publications, Volume 3, Issue 4, pp. 1-4, 2013
- [4] A report of Water Resources Planning Commission, "*Report on Utilization of Funds and Assets Created through Ganga Action Plan in States under Gap*", May 2009
- [5] Markandya, A. and Murty, M.N., "*Cost benefit analysis of cleaning the Ganges: some emerging environment and development issues*," Environment and Development Economics, Cambridge University Press, vol. 9(01), pages 61-81, February 2004.
- [6] Ministry of Environment and Forest, Govt. of India. Statistical Review of Programs under National River Conservation Directorate, Sept. 1999.
- [7] Sunita Narain. *Ganga the river: it's pollution and what we can do to clean it.* Centre for Science and Environment, New Delhi, India, 2014.

-
- [8] Adel, M.M., 2001.” *Effect on Water Resources from Upstream Water Diversion in the Ganges Basin*”. J. Environ. Qual. 30, 356–368.
 - [9] Dwivedi Manisha, and Khanna Madhu Malini. “*Ecocriticism in the writing of Ruskin Bond*”, Volume.5. Issue 2,2017.
 - [10] Bilgrami, K.S. and Datta Munshi, J.S., 1979. *In Limnological survey and impact of human activities on the river Ganges*, Technical report MAB. Project – 5 (UNESCO), P.G. Departments of Botany and Zoology, Bhagalpur University.
 - [11] Dwivedi Manisha. and Tiwari Ankita”*Portrayal of women in Amitav Ghosh’s sea of poppies*”, Volume.4. Issue.2,2017
 - [12] Bhadula, S. and Joshi, B.D., 2012. *Studies on phytoplanktonic diversity of river Ganga within Haridwar city*, Uttarakhand. Jour. Env. BioSci. 26(1), 139–142.
 - [13] Kumar Dilip, *River Ganges-Historical, cultural and socioeconomic attributes*, pages 8-20 2017,
 - [14] Shiva Vandana. *Staying Alive: Women, Ecology and Development*. London: Zed Books, 2005.Print.
 - [15] Sumathy, U. *Ecocriticism in Practice*. New Delhi: Sarup Book,2009. Weber Thomas. *Hugging the Trees: The Story of the Chipko Movement*. New Delhi: Viking. 1998.Print.