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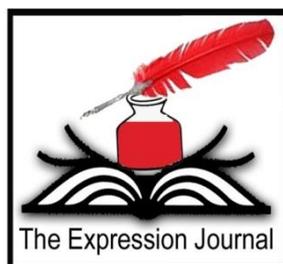
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BIODIVERSITY AND HUMAN RIGHTS: NEED OF THE DAY FOR SURVIVAL

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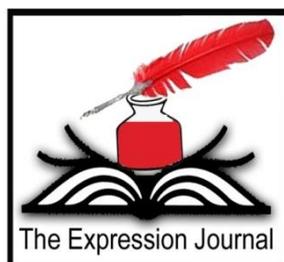
Abstract

Human rights are the journey of empowerment of mankind, which depends on biodiversity for the successful attainment of its destination. Here the author is intended to describe the value of biodiversity in terms of human rights. For that purpose, a deep analysis of scriptures and literature is made by the author. Advocacy for the advancement of rights relating to individuals is gradually attempting to attain its optimum level world at large. In this journey to fulfil diverse needs attached to life, human beings have overexploited the natural resources, which has resulted in the continuous severe loss of biodiversity. The human race has forgotten the value-added principle of "Vasudeva kutumbkam.i". Existence of community and rights of community members are interconnected with the well-being of other living and non-living beings which are inseparable parts of the body of "Mother Nature." Disturbance in one unit of nature has made the reaction against the action of the human race, which is apparent in the multidimensional loss of resources and rights. India has remained the representative of the welfare concept since the ages and has given its jurisprudence of conservation and promotion of human rights and biodiversity. There was a value-added attitude of the Indian community towards the concept of Serve bhavantu sukhinaⁱⁱ (well-being of all). But during the last century, a great countdown has been measured in environmental values, which have resulted in the loss of biodiversity. It is closely connected with human rights like the right to food, water, shelter, health, hygienic environment, and that's why it requires a protective and promotional attitude toward the well-being of human beings.

Keywords

Mother Nature, Diverse, Welfare, Human Rights, Biodiversity.

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INTRODUCTION

Biodiversity is as closely connected to human rights as another face of the coin—many folds of human dignity flow with the current of biodiversity. Human rights like the right to food, fresh air, water, a clean and hygienic environment, education, health, and shelter are more or less based on the existence of biodiversity. Human right is the journey of empowerment of various sects of society which runs together with biodiversity. Belief in the principle of “sarve bhavantu sukhina” has been obeyed by the Indians for ages which enlightens the gradual development and protection of human rights, which are based on the welfare of all living and non-living beings. Ancient Indian jurisprudence reveals it very clearly that Indian social structure, as well as its value-added principles, were designed in such a way that, on the one hand, it promotes and protects the human rights and makes them more valuable and sustainable by securing the sustainability of various biological units which are collectively known as biodiversity.

On the other hand, the protection of the diverse natural living and non-living things remained treated as a common moral duty. Rivers, trees, animals, and resources like the air have been treated as the pious subject matter of prayer, forming the base of inherent human rights. Facts reveal that Ancient Indian society remained very caring and vigilant towards the protection of biodiversity as if there were any violation of fundamental moral principles, it would be treated as a violation of basic rights and the sin which Dharma sanctioned.ⁱⁱⁱ

With the growth of science and human knowledge, indiscriminate use of resources has brought us to that day where nature, with eyes full of tears and begging hands, calls for conservation and protection. Increasing scientific and technical knowledge has swallowed the various species of plants and animals which were members of a diverse family of mother "Nature." We have forgotten that we coexist on this planet, and the disturbance of one organ like the plant, animal, or river will affect the other.^{iv}

Fortunately, the wisest creation of God, the human being, started to think about the conservation of endangered biodiversity to secure his existence. It is not the kind-heartedness towards nature but himself because man can never exist without the existence of nature. It is, in fact, not the need that came from conscience but the greed of human beings to secure their life. The global issue requires a multidimensional effort connected to many folds of welfare and

human rights. Science and policy-based efforts have been started on the international, national, and local levels. During all that, overexploited species connected with the livelihood remained the subject of consumption by the public at large, that's why, the condition remained unchanged.

Therefore, a more serious debate started across the globe to come back with such a serious issue that has resulted in international treaties and legislation on the national and international levels for the welfare of mankind. This was when human rights were identified to be urged with biodiversity.

For a better understanding of this gradual evolution of the Mutual dependence on human rights and biodiversity, we can go through time divisions of diverse principles under ancient Indian jurisprudence for securing the sustainability of biodiversity, human rights, and the situation of the day, including the issues, approach, and possible solution, analytically.

HUMAN RIGHTS AND BIO-DIVERSITY: ANCIENT INDIAN PERSPECTIVE

For ages, India remained the world leader by evolving the concepts like "Vasudhev Kutumbkam" regarding the promotion of symbiotic living, favouring biodiversity sustainability. Human rights and fundamental freedoms help our multidimensional development and fulfilment of our spiritual and material needs. Without recognition of those inherent rights, including the right to education, food, environment, development, and strengthening of human beings, could not be imagined. Ancient Indian ideology is distinctly identified with the gradual evolution of knowledge, science, and technology for ages. Religious scriptures illustrate that people at that time were vigilant for the conservation of biodiversity, which reflects in legendary creations like Vedas, Manu Smriti, Ramayana Mahabharata, and Arthshastra by securing and showing their commitment to the conservation of forest ecology sustainably.

The traditional knowledge of India has developed its environmental jurisprudence, which remains the torch bearer for the whole world. Scriptures reveal the understanding of policymakers and common people about biodiversity and the existence of basic rights connected with the existence of nature.

Scriptures like Ramayana and Mahabharata describe Tapovana^v which were very rich in biodiversity. Here, the value-added principles and their application to biodiversity conservation are also described. Rishi Valmiki cursed the hunter for the killing of the bird "Crunch."^{vi} It is a good illustration of their attitude towards the concept of the well-being of all. Ashoka garden Chandan gardens were very popular at that time, specially protected areas and rich places for biodiversity. The personification of various environmental components^{vii} like water as(God Jal), Grain(God Anna), air(God Marut), fire(god Agni), nature(Goddess Nature), etc. certain very prominent illustrations which show the inclination of people of that time to establish the connection with the various diverse components of nature. People of that time had a caring and friendly approach toward biodiversity. The rivers were personified and given the status of mother and goddess-like Ganga, Yamuna, and Sarasvati. No prayers could be successfully organized without the waters of holy rivers. There are several illustrations, like the Army of Lord Shree Rama was made of monkeys, bears, and other animals. They were capable of communicating with diverse natural entities like plants and animals. Various animals like tigers, snakes, crows, eagles, mice, and turtles were personified as vehicles of God and goddess, and in this way, they are regarded as the subject matter of prayers. The killing of them brings the people subject to severe penalties. ^{viii}

Lord Krishna, in the famous Bhagavat Gita, compared the world to a banyan tree which contains multiple branches and represents the world at large as the concept of symbiotic

association with diverse natural entities in nature. The banyan peepal and Ashoka were designated as sacred plants which were, in fact, representative of keystone species. A rich economic unit of Mathura was based on the production of cows. Illustrations show that for their protection, lord Krishna swallows the forest fire. He lifted the mountain Govardhan.^{ix} for the protection of citizens as well as cows and other living beings. They were hardly vegetarian, and that's why they were friendly to live beings as well to biodiversity. Lord Krishna has killed several asura persons who threaten God's other creatures. He has preached that the welfare of human beings rests in the welfare of other living beings. In this way, he gave the message of maintenance and conservation of biodiversity in the current sense.

Kautilya in Aarthshastra^x have provided the principle for dealing with vegetation, animals, domestic or wild, and other creatures. Special provision for punishment and penalties was there. Supervisors were there for forest cattle and butcher houses for regulatory purposes. Those were responsible for the protection of wildlife. A list of protected animals and living beings showed the scientific knowledge and understanding of the importance of the symbiotic association of that time. Village headmen were also responsible for the protection of biodiversity. Resources of forest were directed to be used sustainably.^{xi} Any unauthorized cutting of trees or parts of them, especially fruit-bearing trees, brings the offender subject to a penalty based on the type of harm or injury.

Manu Smriti^{xii} the world's first compendium on human jurisprudence codified by the Maharishi Manu states several principal dealings with the maintenance of biodiversity as an integral part of human development which is - Chara (movable living organisms) and Achara (plants), which forms biodiversity collectively. Imbalance in five components of nature Agni Jal Nabha Vayu Prithvi, which forms the basis of life and all major human rights on this planet, brings the harmful stage of pollution when their relationship is disturbed. Contamination denotes any action against wholesomeness. Manu smriti provides punishment for any injury to the plant or part thereof. They promoted vegetarian food habits. The protection of biodiversity was regarded as the axis of the system.^{xiii}

To protect biodiversity, he stated that fish, pigs moving animals' birds of the village forest, and predatory birds should not be killed for food. He further held that killing off Khara(ass), Ashva(horse), Rastra(camels), Mriga (deer), Abha(elephant), goat, snake, and buffalo is a sin.

Charak and Sushruta Sanhita are the legendary welfare scriptures on protecting the health of common people. It provides knowledge about the use of diverse natural resources for medical purposes. Sushruta classified the animals based on their natural habitat and food habits. He classified the lands into three major categories (1) Jangla or open space of common plants (2) Anupa or marshy tracts (3) Sadharana or the region featured with the above mentioned both categories. All that reveals very clearly that they were aware of the interconnection between the biodiversity and basic rights of the human being. An attempt to minimize the invasion could be seen in their description.^{xiv}

Aryan influences biodiversity-based humanitarian jurisprudence very much. In that Vedic era^{xv} Aranyaka provides about somehow the knowledge of ecology and symbiotic interest. Development of irrigation system, agriculture of Yava (barley), Kodama (rice) barley, and other crops shows their commitment to dependence for food resources on agriculture. Vedas declared the andaja (born egg), Jeevaja (born of the womb) a SwedJa (moist born), udbhidja (born on earth), and declared them to nick be impelled by consensus.^{xvi}

The relationship between human rights and biodiversity remained an integral part of the ancient Indian societies.^{xvii} Way of Interaction with Mother Nature and its protection was

taught as a shared moral science to communities. As specified in scriptures like Ramayana, humans were harmlessly close to nature and resources in early human history. Effective measures to safeguard the ecosystem and environment reflect the attention toward sustainable development in the real sense. Importance was given to the development and protection of forests and compared the plants by family members' friends. Water was regarded as a purity mark and encouraged everyday consumption to secure its purity.

In Vedic literature, the earth was personified as mother Bhumi, and her beauty has been characterized in Atharvaveda.^{xviii} In Ishopnishad, the concept of sustainable development^{xix} and protection of the living and non-living beings as described in the manner as the creatures are subject to the lordship of God, and no one is allowed to harm another. Ayurveda has linked living beings with the environment, trees, flora, and fauna. Vrikshayurveda, the creation of Surpala, provides a detailed description of plant health science, a milestone in environmental jurisprudence. Here Bijotpatti Kanda provides a detailed description of the forest ecosystem. Hindus have treated the whole world as a forest and sacred, promoted ethnic forestry, treated the species of Organism as sacred, and connected them with the temples, showing their scientific vision toward conserving the ecosystem.

Like Hastinapur, kuru, and Panchal, the great kingdoms and their capital were located in the forest areas. In Ramayana, loud affection towards the forest has been shown as the ashrama of various saints' schools (Gurukul) were located in the forest. Kalidas has romanticized forest life. Vaishali and Champa have maintained the sacred groves.

The life of Lord Krishna in itself is a wide chapter in environmental history^{xx}. Krishna has usually worshipped nature like Govardhan Pooja, serving cows, etc. Lord Krishna said that your environment is your concern, and it is better to worship hills, forests, and cows. He defeated the Kaliyah snake to purify the river Yamuna. He swallowed the forest fire to protect it. He always protected nature. The Brindavan was held by her as a place of welfare. Vedic teaching of Upanishad like Brihad Aranyaka represents the teaching given in the forest. Vanaprastha and sannyasa represented the phase of life when men were scheduled to go here the nature of discovering the self.^{xxi}

City planning^{xxii} and social structures of ancient civilizations like the Indus valley civilization reflect their awareness and commitment to being eco-friendly. There was a well-developed irrigation system which was usually canal-based. Clay was used for the manufacturing of bricks for the construction of buildings. Analysis of architecture and city planning shows that they were well equipped with the knowledge of the need for sustainability of resources. The presence of water storage units in the city which were, in fact, for storage of rainwater, represents their wise approach toward the sustainable use of resources. The availability of deer tigers, Peacocks, elephants, plants in their paintings, pottery, and seals represents their affection for nature.

All that makes it very clear that thinkers and policy makers in ancient India had diverse knowledge about the importance and interconnection of biodiversity and the basic rights of human beings. By giving the importance to nature protective attitude for securing the various basic rights like the right to food, water, health, shelter, education, and spiritual well-being was secured.

HUMAN RIGHTS AND BIODIVERSITY: CURRENT PERSPECTIVE

All human activities or the exercise of rights bear a certain impact on surroundings. It is followed by the ecological footprint representing the use of biotic or abiotic resources, resulting in pollution's contribution. The basic consumption was based on resources for the food, clothing, and housing needs of a human being. The needs were represented by the basic

human rights of communities at large. Excessive enforcement of rights by overlooking the abusive feeding based on diverse biological entities threatened the biodiversity.^{xxiii}

The exploitative use of resources and contamination of natural habitats through pollution and waste beyond the soaking capacity of nature have exposed biodiversity to danger. The complex coexisting living units continued to be closely connected and dependent for existence on one another, known as an ecosystem, capable of being identified distinctly due to its diversity in biomass. It renders the community services like food, water timber fibre. It also manages the various inherent needs of human beings and spiritual benefits, all that is based on diverse flora and fauna. In other words, biodiversity serves as a nutrient cycle. In this context, the past century has registered itself as a milestone for causing a disturbance in diverse biological systems. It happened to meet the rapidly growing demand for food, using fresh water, timber, fuel, and fibre. Though all that have honoured human rights but exploited the biodiversity very much. Human rights and biodiversity are the two interdependent variables, and the well-being of one secures the well-being of another. Therefore, such exploitation of biodiversity has progressed the ways for snatching of human rights fed on nature. Communities have witnessed the snatching in the form of many diseases, natural calamities, extinction of species, etc.

Rapid growth in the cultivation of food grains has promoted the accelerated clearing of forests. The accelerated clearing of forests has adversely affected the temperature of our planet, flora, and fauna. A major portion of the clearing of forests is subsistence-based and connected to the human survival system, which is founded on the diverse socio-economic need of the community. Clearing of forests also became the need of the day to establish various industries based on agriculture. The use of chemicals for manuring and protecting the crops like urea and DDT have boosted the chemical content in the soil, water, air, and living and non-living beings. The fact has resulted in the disfiguration of human rights and biodiversity both. The chemicals like DDT flow in the whole biological cycle and have been found even in the mother milk.^{xxiv} Medications like Diclofenac have given an example of species loss by killing the birds like vultures. Human health rights have been paralyzed due to manmade mismanagement of nature's services. The enhanced toxic substance in its surroundings has moulded itself into several diseases like cancer, T.B., etc. Increasing health issues are founded on the pierced heart of flora and fauna. Dams^{xxv} are created for electricity and irrigation, which have widely affected the habitat of species and communities. It has also threatened cultural biodiversity. On the one hand, it strengthens the human right to food and electricity (power supply) but, on the other hand, disturbs the terrestrial and aquatic ecosystem.^{xxvi} The use of fossil fuels has resulted in ozone layer depletion and global warming, which accelerated the melting of glaciers, and a sheet of Antarctica, consequently resulting in the rise of sea level. This has also resulted dramatically in the natural calamities that destroy whole development. With an increase in natural calamities like floods, landslides, earthquakes, and a rise in sea level, earthquakes are certain specific illustrations connected in their remoteness with the disturbance in biodiversity. Due to such various reasons, species are declining. Unfortunately, no midway for maintaining the sustainability of agricultural biodiversity is still developed. Other than this, countries do not promote organic farming due to economic factors. The relationship between agriculture and biodiversity is required to be harmonized. It could be an effective tool to repair the increasing gap between food-related requirements and the sustainability of diverse natural resources.

Increasing residential deeds have also started swallowing biodiversity. Unplanned development has led to the fast-tracked invasion of natural flora and fauna. Many housing,

commercial, and other construction projects resulted in a threat to the natural habitat of various species, which are directly or indirectly associated with the well-being of the community life of human beings.

Harvesting and trading animals and plants for food and commercial purposes on a mass level has destroyed the central pillar of the ecosystem. Wildlife came at risk in this way. It has also started damaging the human survival system of dependent populations. Uncontrolled interference in the habitat of pollinators has endangered agricultural biodiversity. The author has found that the right to health, food, and essential services based on biodiversity is at risk. Reduction in human contact with diverse biomass could be a better approach toward strengthening human rights.

The financial burden for managing the disturbance in the ecosystem and balancing it is more than the output obtained from the exploited user of biodiversity. Several projects for the conservation of tigers, elephants, vultures, and other endangered species are running out of public funds. Several policy-based regulations have been imposed on communities living there and depend for survival on the diverse biomass. Changes in sociological patterns could be calculated in terms of various development indicators. Monetary loss in such destruction and repair of incurred loss is greater than the benefits extracted from exploited users. The right to shelter, health, education, a fear-free atmosphere, food, and freshwater are several human rights at risk due to disturbance in biodiversity. Dignified human life could never be guaranteed without securing the well-being of biodiversity. The development has been insulted by the chaos in diversity in the absence of the concept of sustainability. Due to that reason, biodiversity conservation has become the need of the day. There is a great need to resolve the conflict between biodiversity conservation and socio-economic development. A local community-based conservation approach towards biodiversity could be a better tool for protecting and harmonizing human rights with diverse biomass. It is very clear that the impact of degradation of biodiversity is cross-boundary in nature in a remoter way and could not be measured easily. Therefore, a collective respectful approach towards the policy-based political efforts for biodiversity conservation is the need of the day. Social, economic, and political factors guide the approach to conservation. Therefore, they are required to be collectively harmonized. Religiously respecting the global efforts like the Quote protocol, the Montreal protocol could bring a better picture of the world. The wealth could not secure human rights with the adverse effect on nature.

The human rights of the poor and resourceless population remained the bigger victim of biodiversity loss.^{xxvii} Resourceless people are increasingly dependent on nature to fulfil their basic needs like natural medicines, food substances, timber, fuel for cooking foods, and resources for cottage industries. Science has promoted competition in the market and accelerated the consumption of substances in industries and society—natural resources and compounds derived from plants and animals used for industrial production. The substances so used take more time to attain maturity, and therefore a gap between the availability of resources and demand is increasing. Socio-economic conditions of people, communities, and countries remained the important factor behind this bigger problem. Human rights development shall be meaningless if it does not care for the basic rights of the poor population, which is dependent directly or indirectly on biodiversity.

The law and policies are imposed on countries and common people to combat the increasing problems backed by severe punishment and penalties. But the enforcement mechanism is, in fact, very poor. They were securing justice for people whose human rights were violated remained a tough job. Special courts are established for the determination of

liability. All that remained meaningless is very apparent in increasing natural calamities and other problems directly affecting the public's human rights. So, it is quite clear that development at the cost of biodiversity will outrage human rights.^{xxviii}. Therefore, better care for human rights is not possible without a caring attitude towards biodiversity.

CONCLUSION AND WAY FORWARD

The existence of human rights is another face of biodiversity in its remoteness. It shall meaningless to make efforts to advance human rights in the absence of conservation of biodiversity. Biodiversity in manifolds secures and promotes human rights, which is apparent in ancient Indian environmental jurisprudence. Sustainability is the need of the day, and in the absence of well-being of diverse living and non-living units of nature, the well-being of the human race could not be presumed. A better understanding of the increasing problem and commitment from conscience to resolve existing issues attached to biodiversity conservation will strengthen the human rights of common people. The protection of biodiversity can be done in two ways (1) by applying direct methods made by the change in policy and by securing their effective implementation.

On the other hand, it could be made by the change in user habits and attitudes of common people. Measures to reduce the over-exploitation of natural resource are required to be strengthened. Reduction in over invasion and appropriate governance is required to fight the current issue attached to biodiversity and human rights. Students who are the coming generation of citizens should be educationally and morally trained to conserve biodiversity. Awareness of the public regarding the mutual dependence of human rights on biodiversity should be secured. Subsidize should be increased to promote the cottage industry. Free access to resources and wildlife should be strictly regulated. Management at the local level should also be strengthened.

REFERENCES

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- ⁱ Vasudeva kutumbkam” *Maha Upanishad*” Chapter 6 (VI. 71-73), Available at <https://en.wikipedia.org>, accessed on 12th August 2021
- ⁱⁱ Serve Bhavantu Sukhina, “*Brihadaranyak Upnishad*” , Available at, <https://hi.unionpedia.org> accessed on 12th Aug 2021
- ⁱⁱⁱ Majumdar G. P., Botany in Ancient and Medieval India. In: Ray, P., Sen, S.N. (Eds.), *The Cultural Heritage of India*, Vol. VI. The Ramakrishna Mission Institute of Culture, Calcutta, India (1978).
- ^{iv} Thapar R., Kenoyer J. M., Deshpande M. M., Ratnagar S., *India: Historical Beginnings and the Concept of the Aryan*. National Book Trust, New Delhi, India (2007).
- ^v Tavana, “*forest of austerities or spiritual practice*”, Available at <https://en.wikipedia.org/wiki/> accessed on 12th Aug 2021
- ^{vi} Valmiki Ramayana, available at <<https://www.thehansindia.com> > accessed on 14th Sep 2021
- ^{vii} Panch Mahabhuta, available at <https://www.kamakoti.org/> accessed on 14th September 2021
- ^{viii} Pandey D. N., *Ethnoforestry: Local Knowledge for Sustainable Forestry and Livelihood Security*. Himanshu/AFN, New Delhi, India (1998).
- ^{ix} Govardhan Puja, Available at < <https://www.ndtv.com/> > accessed on 15th October 2021
- ^x Arthshastra, Available at < <https://en.wikipedia.org/wiki/> > accessed on 15th October 2021
- ^{xi} Rangarajan L. N., *Kautilya The Arthashastra*. Penguin Classics, India (1992)
- ^{xii} Priya Darshan Sensamarma “*Conservation of Biodiversity In Manu Samhita,*” Available at < <https://insa.nic.in/> > accessed on 15th October 2021

-
- ^{xiii} Majumdar G. P., Botany in Ancient and Medieval India. In: Ray, P., Sen, S.N. (Eds.), The Cultural Heritage of India, Vol. VI. The Ramakrishna Mission Institute of Culture, Calcutta, India (1978)
- ^{xiv} Bloomfield M., The Religion of the Veda: The Ancient Religion of India, from Rig- Veda to Upanishads. Knickerbocker Press, New York, USA (1908)
- ^{xv} “Vedic View of Ecology” Available at <https://yogainternational.com/> accessed on 16th November 2021
- ^{xvi} Ray P., Zoology in Ancient and Medieval India. In: Ray, P. Sen, S.N. (Eds.) The Cultural Heritage of India, Vol. VI. The Ramakrishna Mission Institute of Culture, Calcutta, India (1978)
- ^{xvii} Padhy S., Dash S., Mohapatra R., Journal of Human Ecology 19(1) (2006) 1-12
- ^{xviii} Vannucci M., Ecological readings in the Veda. D.K. Print World, (1994).
- ^{xix} Sayan Bhattacharya “*Forest and biodiversity conservation in ancient Indian culture: A review based on old texts and archaeological evidences*” Available at < <https://www.scipress.com/>> accessed on 18th December 2021
- ^{xx} “Disaster dominates the environment” is Available at <https://timesofindia.indiatimes.com/> accessed on 20th January 2022
- ^{xxi} Prime R., Hinduism and Ecology: Seeds of Truth. Motilal Banarsidass Publishers Pvt. Limited., Delhi, India (1994)
- ^{xxii} Sayan Bhattacharya “*Forest and biodiversity conservation in ancient Indian culture: A review based on old texts and archaeological evidences*” Available at < <https://www.scipress.com/>> accessed on 18th February 2022
- ^{xxiii} Rangarajan M., Environmental issues in India: A Reader. Pearson Education India (2007).
- ^{xxiv} “Worldwide Trends in DDT Level” Available at <<https://pubmed.ncbi.nlm.nih.gov/10342677/>> accessed on 25th March 2022
- ^{xxv} Ronald Janson” The effect of dams on biodiversity “Available at <<https://www.researchgate.net/>> accessed on 25th October 2021
- ^{xxvi} Swami A. C., Shrimad Bhagavatam. Bhakti Vedanta Book Trust, India (1976)
- ^{xxvii} U.N. Environmental Programme “*Human Rights and Biodiversity.*” Available at <https://wedocs.unep.org/bitstream/handle/> accessed on 02nd November 2021
- ^{xxviii} United Nations Human Rights special report Aug 2021” Human rights-based approaches to conserving biodiversity: equitable, effective and imperative “Available at < <https://www.ohchr.org/>> accessed On 29th October 2021