

# **CENTRE FOR INDIAN KNOWLEDGE SYSTEMS**

IN COLLABORATION WITH

# HARITHKRAM

under the aegis of

INTERNAL QUALITY ASSURANCE CELL SHAHEED BHAGAT SINGH COLLEGE UNIVERSITY OF DELHI

presents

# **UnderGraduate Research Aptitude (UGRA)**

An Intercollege Interdisciplinary Research Competition

on

# ECOLOGICAL CONSCIOUSNESS IN ANCIENT INDIA: LIFE THEN AND NOW

# **ABSTRACT VOLUME**

# APRIL 22, 2024

#### **CONCEPT NOTE**

#### **Ecological Consciousness in Ancient India: Life Then and Now**

The ancient Indian scriptures bear testimony to the fact that Indians in ancient India lived in harmony with nature, environment and mother earth. Ecological consciousness was engrained in the very fabric of the daily lives of the *bharatiya* people in the days of yore. The people of Bharatavarsha followed a lifestyle that was founded upon man's inseparable bondage with nature and the environment.

Concern for nature and the environment did not manifest as a separate cause in the lives of people in ancient India. There were no green leaders or environmentalists; rather, everyone championed the cause of nature and environment. Ecologically conscious practices were part of the everyday lives of people: they incorporated local herbs and grew plants and tress of medicinal value; made the first daily offering of food to pets, insects, stray birds and animals, grew and consumed a diversity of grains and millets to allow the soil to get re-nourished, and revered and protected biodiversity a part of their extended family. In a nutshell, Indians treated the entire world with the spirit of "Vasudhaiva Kutumbakam," which defined the Indic way of life, which, needless to say, was an inherently ecological one.

Perhaps no other civilization pays as much attention to environment and environmental ethics. Ancient Indians sought the divine in nature and considered everything as sacred. *Ishavasyam idam sarvam* in the yogic philosophy meant that divinity is omnipresent and takes infinite forms. Our ancestors regarded everything—rivers, mountains, trees, lakes, animals, flora, fauna, the mineral world, even the stars and planets—as pervaded by a subtle divine presence. It was considered to be the dharma (prime duty or responsibility) of individuals as well as communities to care for the earth and maintain the balance. Indic religions such as Hinduism, Buddhism, Jainism and Sikhism viewed the earth as mother, and hence, advocated that it shouldnot be exploited. In the 'Bhumi Sukta' of the Atharva Veda, the earth is adored and respected like a mother. The Rig Veda contains several hymns that foreground a strong tradition of *ahimsa*(non-violence), which ensured the preservation of all biodiversity. The concept of karma, or the cosmic law of cause and effect guided the understanding that every action we take has a planetary and cosmic effect (what is understood as carbon footprint in contemporary terminology).

However, approximately 800 years ago, these strong and continuous traditions suffered a setback with the onslaught of pirates and invaders from the Middle East and Europe. As a result, the Indic way of life was dismissed as paganism or animism, the ensuing industrialization destroyed forests, reckless drilling and mining became synonymous with progress and large-scale hunting led to the decline of wildlife. It led to further abuse and indiscriminate exploitation of the earth and its resources. The people from the west failed to recognise the scientific and spiritual basis of the relationship between man and nature and how this is the only way to sustain ecological balance.

Thus, for ecology to be truly saved and revived, we have to return to the meanings and practices that infuse sacredness and reverence towards nature, as has been the case in Indian traditions since times immemorial, and re-awaken and nourish our relationship with nature. For Indians, the environment is not protected because of the selfish urgency to save biodiversity and hence save human future, by corollary, but because it is the dharmic way (the correct path) of life and hence a righteous duty that all humans are obliged to perform. Some recent examples of seeing ecology, ethics, spirituality and religion as one complex whole, are the simple living and use

of indigenous products exemplified by Gandhi (that ensure a sustainable economy); strong communal practices of the Bishnoi, the Bhil and the Swadhyaya communities to protect local ecosystems such as animals, forests and water resources; environmental movements like the Chipko and Appiko; and the ascetic practices of *tantra*, *yoga* and *sanyasa* which teach practicing restraint in consumption, to name a few.

The solution is to go back to the well-known Indic teaching: *tain tyakten bhunjitha*, or, "take what you need for your sustenance without a sense of entitlement or ownership." It is by going back to these and other such Indic practices that we can truly recover the ecological consciousness that so definitively defined us as a culture, and thereby have any hope of saving the environment in the present, as well as leave behind a breathable world for the future generations. The way ahead is to start by going back to our roots, discovering ancient wisdom and lastly, by applying local, indigenous knowledge to our current lifestyle and future 'developmental' projects.

#### **References:**

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#### **RULES AND GUIDELINES**

Harithkram, the Environment Society and Centre for Indian Knowledge Systems, under the aegis of the Internal Quality Assurance Cell, Shaheed Bhagat Singh College, are organizing an intercollege interdisciplinary research competition for students, the **UnderGraduate Research Aptitude (UGRA)** on the focal theme "Ecological Consciousness in Ancient India: Life Then and Now."

Through the UnderGraduate Research Aptitude, we want to encourage interdisciplinary research collaborations between students and initiate them into a research ecosystem that is local and indigenous, nestled in the larger tradition of the *Bharatiya Gyan Parampara* (Indian Knowledge Systems). Learners from all disciplines and levels of undergraduate study are welcome to participate in teams of 3-4 students, guided by a faculty mentor of their institution.

The UnderGraduate Research Aptitude will be held in 5 phases in a hybrid mode. After the first round of inviting abstracts on topics related to the focal theme, the shortlisted teams will undergo 3 rounds of power point/poster presentations of their research progress over the next 6 months, at an interval of 1-2 months before the scientific committee of experts from various institutions and organizations. The scientific committee will give inputs and directions for further improvement of the proposed research work. The final research presentations of the shortlisted participants have been scheduled for Earth Day, i.e. April 22, 2024.

#### Timeline:

- Opening of abstract submission: October 17, 2023
- Last Date of abstract submission: November 10, 2023
- Intimation of selected abstracts: November 12, 2023
- Research Progress Presentation-I: November 25, 2023
- Research Progress Presentation-II: February 10, 2024
- Research Progress Presentation-III: March 16, 2024 (Tentative)
- Final Research Presentation: April 22, 2024

#### **Eligibility**:

- 1. It is a team event based on an original and innovative approach, seeped in IKS.
- 2. Each team will be constituted by 3-4 students and a faculty mentor.
- 3. The students must be enrolled in an **undergraduate programme** from any College/ University in India.
- 4. It is mandatory for the students of a team to be from different disciplines: the students in a team should represent a minimum of 2 disciplines. However, we encourage students coming from different years of undergraduate study in the same institution to form a team.
- 5. The team must be formed by students and faculty from the same institution.
- 6. A student participant cannot be a part of two teams.
- 7. The mentor cannot guide more than 1 team.
- 8. One institution cannot send more than 3 teams.

#### **IMPORTANT GUIDELINES**

- 1. The participating team has to choose **a unique topic** based on the focal theme. However, their presentations cannot choose the focal theme as the topic of their presentations.
- 2. The language chosen for the presentations can be either **Hindi** or **English**. However, the language of the presentation should be consistent throughout the presentation.
- 3. The research work is expected to contain **definite objectives**, research **methodologyused**, **data sources used**, **analysis** and **conclusion**.
- 4. There should be a **proper mention of the sources** for any Secondary Data used in the presentation. The last slide has to **list all the references** used in the research work.
- 5. Registration and Submission of Abstracts (max. word limit 500 words) between October 17, 2023 (Monday) November 05, 2023 (Sunday).
- 6. **Intimation of Selected Abstracts** for participation: **November 7, 2023 (Tuesday).** The acceptance of the abstract shall be intimated through email to the registered participantsby the organisers.
- 7. Review meetings regarding progress of the study:
  - i. Research Progress Presentation-I: November 25, 2023
  - ii. Research Progress Presentation-II: Third week of January 2024 (tentatively)
  - iii. Research Progress Presentation-III: Third week of March 2024 (tentatively)

**Note:** The mentor is expected to be present in the review meetings along with the students.

- 8. Students will present their final findings using PPT/Poster on the day of event.
- 9. The College has a strict policy against plagiarism. The final presentations willundergo a plagiarism-check before they are presented on April 22, 2023.
- 10. A maximum of **12 teams** will be selected for Final Presentation from those who havecompleted all the three review meetings and their progress is found satisfactory.
- 11. Each team will get **15 minutes** to make their presentation followed by interjections of **05 minutes** from students of the competing teams.

**Note:** No registrations and abstracts will be accepted after the due date. For any queries, emailus at **ciks@sbs.du.ac.in** 









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## ECOLOGICAL CONSCIOUSNESS IN ANCIENT INDIA: LIFE THEN AND NOW

SUBMISSION DEADLINE: NOVEMBER 10, 2023

THE RESEARCH COMPETITION WILL BE HELD IN V PHASES (FINAL ROUND ON EARTH DAY, APRIL 22, 2024)



https://bit.ly/CIKSUGRA

FOR MORE DETAILS, VISIT: www.harithkram.org/ugra







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AND

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# UNDERGRADUATE RESEARCH APTITUDE

on

ECOLOGICAL CONSCIOUSNESS IN ANCIENT INDIA: LIFE THEN AND NOW

# **RESEARCH PROGRESS PRESENTATION-I**

DATE: NOVEMBER 25, 2023 TIME: 09:30 AM



ZOOM MEETING ID: 827 6745 2863 PASSCODE: 251123

bit.ly/joinugra

FOR MORE DETAILS, VISIT: www.harithkram.org/ugra

PROF. ARUN K. ATTREE PRINCIPAL & PATRON **MS. JYOTI VARSHNEY** CONVENER, HARITHKRAM DR. KOMAL AGARWAL COORDINATOR, CIKS DR. V. A. V. RAMAN COORDINATOR, IQAC

# ABSTRACTS

#### What Yakśa's love teaches us about Ecological Emotional Intelligence: Reading *Meghadūta* in Manipuri

Mentor – Dr. Namrata Chaturvedi Student Team – Abhinav, Nadeem, Deepika, Nutan Zakir Hussain Delhi College, University of Delhi

#### Introduction:

Being punished by his lord, Yakśa takes shelter in the vicinity of nature that embraces him without any conditions. Only a mother does this for her child. In Uttarakhand, Sikkim, Manipur, Meghalaya and many other cultures, there are local deities or protectors that are embedded into the living cultures. These local gods are natural elements like a tree, land, stone, water body etc. Near our village (in Uttarakhand) there's a tree which is worshipped by the people. Whoever passes through that way, offers a handful of grass to its roots and says "Katpatya' mai una ru'n tve' pujne ru'n, tu mi ke' doodh-bhaat diye'"("Katpatya (the tree) I'll keep coming and worshipping you, kindly grant me with milk and rice (food)"). In the text too, Yakśa offers the cloud Kutja flowers as a gesture of respect and gratitude.

For the neglected task, one year of separation from his beloved,

And his powers losing in the calm breeze and cool shades;

Blessed by Sita and adorned by pure dew drops,

Some yakśa once lived on that hermitage of Ramgiri hill.

(Tr. from Manipuri by Nadeem Yumkhaibam and Abhinav Sarangthem, Eng Hons (1<sup>st</sup> Year), ZHDC, DU)

Since its inception, Manipuri literature has always been connected to the themes of nature, community and folklore. The annals of traditional Manipuri folklore and religion - specifically Meitei tradition - gave a compassionate focus on the subject of man's own connection with the land they inhabited, the natural landscapes and its inhabitants and the cycle of life. In modern literature, poems like 'Kombirei' by Khumanthem Ibohal (about the blue-iris flower) and 'Anouba Kumgi Kumdam Khon' by R.K. Surendrajit (about the change of seasons) are remarkable. The concept of "Helloi", who are mythical female creatures (like apsarās) have endured in the popular Manipur consciousness through appearances in radio dramas, hymns, folk and films. Ratan Thiyam's 2022 drama *Lairembigi Eshei* (lit. "Song of the Nymphs") is based on the "Lairembi" or nature nymphs in Meitei tradition. *Meghadūta* of Kālidāsa was translated into Manipuri (in Bengali script) in 1958 by Kumanthem Gourakishore. After his translation, another one appeared in the Bengali script as *Mahakabi Kalidasa Pranith Meghdoot* by Aribam Brajabihari Sharma. The first translation was recreated into the Meitie Mayek script by Mangisana in 1996 as *Kalidasa ki Meghdoot*.

#### **Objective of the Study:**

- To highlight the ecological philosophy of living embedded in Kālidāsa's *Meghadūta* and identify life lessons for contemporary times.
- To bring into literary discourse the lived culture as well as textual recreation of northeast Indian ecoaesthetics and ecophilosophy.

#### **Research Methodology:**

- The conceptual framework of aesthetics as formulated in Bharata's rasa principles.
- Comparative cultural frameworks of lived ecoaesthetics of northeast India (focus on Manipur).
- Comparative textual reading of select verses of *Meghadūta* in English translation (MR Kale) and Manipuri translation (Mangisana).

#### **Primary Readings:**

Kale, M.R (Trans.). *The Meghadūta of Kālidāsa*. Bombay: Gopal Narayan & Co. Book-sellers, 1934 (Third ed.).

Mangisana (Trans.). Kalidasa ki Meghdoot. Imphal: Minister of Education (School), 1996.

#### **Conclusion and Further Research Directions:**

- There is clear scope for bringing in the translations, adaptations and recreations of Sanskrit literature in the literary traditions of northeast India, as for instance, in Nepali, Assamese and Manipuri.
- The natural abundance and ecophilosophy in the cultures of northeast India reflect a clear ecoconsciousness in interdependence, interconnectedness and ritual/performance traditions. There is much scope for comparative studies in this direction.
- Such studies will enable cross cultural dialogue across geographies and linguistic and literary diversities as embedded in the civilisational range of Bharat.

#### Blending Ancient Traditional Knowledge of Construction with Modern Methods: A Way Forward to Curb Dust Pollution in India

#### Mentor – Dr. Monika Kaul

#### Student Team – Harshit Shukla, Shivam Kumar Singh, Amrit Srivastava, Shruti Gupta Hansraj College, University of Delhi

India Pollution of air, water and soil is an important environmental and ecological problem that will have serious implications on the progress of India. On one hand, we are on a success path on the developmental front but the rising pollution levels is a great challenge. Every year the particulate matter levels, PM 2.5 pollutants are increasing and it is fivefold above the WHO's guidelines. As per CSE Centre for Science and Environment data traffic pollution is making the Delhi air toxic. The rampant construction going on everywhere, including roads, is adding huge amounts of dust to the air which is further complicating the problem of pollution. The construction waste, dust released and other environmental problems have increased multifold

in the last few years. Various measures are being taken by the Government to manage the pollution. However, the success achieved is almost negligible. Therefore, this research paper suggests that it will be rewarding if we peep and look back to our traditional practices and knowledge systems especially while constructing roads, buildings, bridges and railway tracks. Insights into the tribal communities reveal the materials that they employed in construction were selected after a proper thought and every tribal community used practices that were specific to the place they lived in. The Misings, the Deoris, and the Sonowal Kacharis, the three prominent tribal communities of Assam, developed stilt huts that were constructed from local resources and were flood resistant. Many tribal communities used bamboo, thatch, mud, and cow dung to build their settlements. There was no transportation involved and no pollution from automobiles and trucks that carry material for one place to another. The construction was manual and no mechanical crushers and machines were used so less pollution occurred.

In Maharashtra state, tribes mainly reside in the forest range of Sahyadri, Satpuda and Gondwana. This region experiences scorching heat and the temperature hits 41 degrees. The tribals understand the harmful effects of construction on the environment and have used indigenous construction methods that made their dwellings comfortable as well as eco-friendly. We suggest the blend of traditional tribal practices from various areas and the modern science and innovative ways can help reduce the pollution from construction. As in medicine, where natural remedies are also prioritized, construction needs a nature centric approach. The materials that are used are Karvi, wood and mud. The prominent construction techniques are Karvi and Cob wall techniques. The agricultural waste has been used as a binder for mud, thus utilizing the locally available resources hence the environment. But it is also important to mention the role of construction workers in the ancient period who made empires of kings and rulers and whose art and design we all cherish in contemporary times. Traditional architecture employs locally sourced natural materials as they are easily available, economical and climatically more suitable. Also, they have a very low carbon footprint due to negligible transportation cost. Studying and analyzing statistics and data becomes essential when one wants to understand the relevance. For this, understanding of ancient knowledge, communication with tribals and modern engineering practices have to go hand in hand so that we reap the benefits.

#### Architectural Practices in Ancient India: Lessons for Sustainable Urban Development

#### Mentor - Ridhi Khurana

Student Team - Ayushi Tiwari, Ashish Kumar Tiwari, Saurabh Awasthi, Shuham Gupta Hansraj College, University of Delhi

Ancient India the cradle of civilization had deep ecological awareness that shaped its society, touching religious beliefs, cultural practices, and architectural methods. Nature was revered and seen as sacred embodiments of divine forces. The crux of such reverence lied in maintaining an ecological balance between nature and man. Thereby simultaneously safeguarding and nurturing the environment and mankind. The eco-conscious ethos materialized by architects in ancient India has resulted in marvels standing tall even today. The

environmental mindfulness of ancient Indian architects of using locally sourced, renewable, and biodegradable materials not only reduced environmental impact but also seamlessly blended with the natural surroundings. Their designs were also climate sensitive with ingenious ways to harness natural light and optimize ventilation minimizing the need for energy-intensive artificial cooling, lighting, and water conservation. Nature was seamlessly integrated into the ancient architectural designs in the form of lush gardens. These gardens acted as natural coolants, improved the air quality, and provided habitats for local plants and animals, enriching biodiversity and maintaining the ecological balance of life. As the modern world faces pressing environmental challenges, ancient India's architectural heritage provides profound lessons. Our research delves into Delhi's ancient architectural wonders, studying their eco-conscious design through extensive on-site visits and in-depth research. Through this exploration, we unravel the timeless wisdom of ancient Indian architects, offering insights for sustainable urban development in the 21st century.

#### Ancient Indian Ecological Wisdom: Traditions and Contemporary Relevance

#### Mentor: Dr. Anantasharma B G

Student Team: Arkaprava Mukherjee, V Sai Sruthi Reddy, Maddu.LakshmiSai Gayathri, Jagiru Harshavardhan Amrita Vishwa Vidyapeetham, Bengaluru, Karnataka

Ancient India was a cradle of sustainable innovation and ecological consciousness, influencing economic prosperity, competitive advantage, and environmental sustainability. In the pages of history, we unearth an unwavering respect for nature, where every ecological event was an expression of divinity. The ancients recognized the fragility of their existence in an unguarded environment. They, therefore, embraced the essence of adaptation, harmoniously coexisting with nature without seeking to reshape it. As we embark on this timeless journey, we awaken to the profound understanding - one nurtured by our ancestors - that our actions emerge from our consciousness. Just as they found divinity in nature, we, too, recognize the sanctity of environmental preservation.

Here, at the crossroads of past and present, we delve into the wisdom of the ancients. The mysteries of the Indus Valley civilization reveal a land where water, as life's elixir, was managed ingeniously. Stepwells rise like architectural wonders, highlighting not just the ingenuity of our ancestors but their reverence for a resource dearer than gold - water. In the fertile soil of ancient India, waste was never abandoned; it found new life as compost and organic nourishment for crops. Cooking was an art of simplicity, with wood and coal ensuring food's purity, shunning wasteful packaging and refrigeration. Beyond sustenance, health was nurtured in holistic practices like yoga and Ayurveda. The lessons in consciousness reverberate through generations, as elders teach the young to see everything as a mother - the very essence of our ancient way of life. Even our temples, timeless bastions of spirituality, have been the custodians of environmental wisdom. Generations of pilgrims have left with not just spiritual blessings but also saplings to foster nature's love.

As we conclude this journey through time, we understand that actions emerge from understanding, which, in turn, flows from consciousness. To Indians, the world is a family, "vasudhaiva kutumbakam" with nature as our revered mother, "mātā bhūhiḥ putro'ham prthivyāḥ" [Atharvaveda-12/1/12]. With every sunrise, we nurture the consciousness that has sustained us for millennia, echoing the timeless wisdom of the Vedas, which says, 'Do Not Harm the Environment; Do Not Harm the Water and The Flora; Earth Is My Mother, I Am Her Son; May the Waters Remain Fresh, Do Not Harm The Waters.' Nature is not our creation; it is our mother. Nature is our kin, and she has imbued us with the knowledge that we are meant to live in harmony with her [Rig Veda, 6:48:17].

In this article, we discuss these aspects of our culture with reference to ancient Indian texts and traditional practices and customs. We refer to the original and secondary sources, and a few research papers, along with interviews with experts, when needed.

Keywords: Ancient India, Sustainable innovation, Ecological consciousness, Environmental sustainability, Harmonious coexistence, Traditional practices, Cultural wisdom, Vasudhaiva Kutumbakam.

#### Ancient Wisdom to Tackle Contemporary Environmental Issues: A Case Study in Uttarakhand

#### Mentor: Dr. Divyanshi Dubey

Student Team: Mohammad Sadiq, Mahi, Angela Joseph, Anil Singh Negi D D College, Dehradun, Uttarakhand

This paper explores the rich reservoir of ancient Indian wisdom, drawing from traditional texts, practices and cultural heritage to confront the pressing environmental issues facing modern India. We live in an age characterized by climate change, pollution and resource depletion. There is an increasing realization that indigenous knowledge system can offer valuable insights and solutions. This Paper examines ancient Indian concepts to formulate strategies for sustainable development, resource conservation and ecological harmony, by combining these old philosophies with contemporary science and policy. In Uttarakhand environmental changes range from water pollution to deforestation, over pollution and climate change. The consequences of these challenges are affecting public health, livelihoods and nations' overall well-being. While making progress we often forget and are unable to keep pace on environmental degradation.

One approach to address these complex environmental issues is ancient Indian wisdom .For instance the famous Indian author Kautilya in his book Arthshastra has emphasized the importance of protection and management of environment. India can aspire to build a harmonious relationship between human world and natural world. This can encompass sustainable agriculture, renewable energy, waste reduction and ecosystem conservation. Therefore traditional methods such as organic farming and herbal medicine are practices which are both environmental friendly and health -enhancing. This study seeks to bridge the gap

between the ancient wisdom and modern science, illustrating the relevance of these age old principles addressing the contemporary challenges.

In conclusion, the study of ancient wisdom to tackle contemporary environmental issues in India offers a promising avenue for transformative change. By embracing the profound insights of the past and blending those with the tools of present India can lead towards sustainable and responsible environmental future. This research aspires to serve as a catalyst for these changes, promoting a harmonious co-existence between humanity and the environment in India.

Keyword: Ancient Indian, Cultural heritage Harmonious, Environment, Consequences

#### Evolution of Ecological Ideologies: Shaping Society from Antiquity to Today

Mentor: Ms. Niharika Jaiswal

#### Student Team: Riddhi Agarwal, Avishi Chandra Mansi, Mabi, Vandana Rajesh Sri Venkateswara College, University of Delhi

Ancient mythology always emphasised how life used to be when people were closer to nature. This might be because in those times nature was the only means of survival be it in the form of food, clothing or shelter. Even medicinal remedies and languages were based on the central theme of how ecology supported the human race. Aside from fictional works, ancient literature also comprised books that enjoyed popularity in their time. Notably, the Jataka Tales and Panchatantra emphasized the significance of ecology and nature, instilling in young minds an unconscious understanding of how nature served as the fundamental basis of existence. Now, coming to the modern era, it is widely accepted that the Industrial Revolution marked the beginning of the deterioration of nature worldwide. People became materialistic and disregarded the environment, which their ancestors had revered as divine centuries earlier. This "IGNORANCE" stage in human behaviour led to activities such as Urbanization, Industrialization, Deforestation, etc., as "Survival and pleasure" became the primary aspects of our lives. This was a time when the increase in industrialization was directly proportional to the increase in pollution. This paper takes into account all these factors and emphasizes the importance of forest conservation and management by elaborating on concepts like the ancient past and how elements or tatva and themes like sacred groves still exist. It also draws a parallel between the historic and the modern era while highlighting the impacts of industrialization and the positive impact technology has had in raising awareness about ecology, despite being the cause of destruction in the first place. Today, technology is used as a catalyst for change, promoting ecological consciousness through e-campaigns, community groups, e-movements, and social media awareness programs. As a result, we have entered an "AGE OF CONCERN" where people are becoming more aware of the environment and the urgent need to conserve it. Moreover, the discourse on the environment has been enriched by several movements, including Chipko, Narmada Bachao, and Silent Valley. These movements have played a crucial role in raising people's awareness about environmental issues, and have contributed immensely towards building a sustainable world. The term "ecology" gained immense significance when Ramdeo Mishra and other contemporaries emphasised the crucial role of ecosystems and forest products. Ranajit Guha, a prominent figure who introduced the concept of subaltern studies, delved into the power dynamics and discourse between the elites and subalterns. This paper confidently considers the works of these scholars and presents its insightful analysis and judgment.

Keywords: Consciousness, ecological management, civilisations, conservation, linguistic and religious texts, technology, industrial revolution, deterioration, awareness, ignorance, concern, movements, discourse, subaltern studies.

#### Tulsi as an Ancient Adaptogen : Unveiling the Sacred Connection

#### Mentor: Dr. Ankur Srivastava Student Team: Devika Bisht, Rani Sharma, Shenaj Rehman Shyama Prasad Mukherji College (W), University of Delhi

Tulsi, scientifically known as Ocimum Sanctum is an aromatic, culinary, and restorative herb that has been used for millennia as an adaptogen and is ingrained into numerous cultures' traditions. It comes from the family Lamiaceae that is indigenous to the Indian subcontinent and has been utilised in Ayurvedic medicine for over 3,000 years. In view of its therapeutic properties, it is recognized as a "Solution of Life" in the Ayurvedic paradigm and is used to address a wide range of common health conditions. It embarks on a journey to unravel the sacred connection between Tulsi and well-being, delving into its historical significance and exploring the adaptogenic qualities that have bestowed it with revered status.

In contemporary times, it acts as a stalwart with an excellent source of adaptogenic qualities, which helps to regulate mood swings and promote mental serenity and clarity. At the heart of Tulsi's allure lies its adaptogenic nature. Eugenol and Caryophyllene are the two most vital adaptogen compounds found in Tulsi's chemical composition. These are exceptionally effective at lowering corticosterone levels, which is the primary source of stress. These compounds interact with various physiological pathways, creating a nuanced response to stress that goes beyond a mere relaxation agent. The adaptability of Tulsi transcends geographical boundaries, echoing its ancient versatility in addressing diverse health concerns. This research aims to dive deep into the sacred connection between Tulsi and well - being, showcasing its adaptogenic prowess that spans centuries. From the sacred verses of ancient scriptures to the laboratories of modern science, Tulsi stands as an enduring symbol of holistic health. As we navigate the nexus of tradition and scientific inquiry, the essence of Tulsi as an ancient adaptogen is unveiled—a timeless healer that transcends the boundaries of time and culture.

KEYWORDS - Tulsi, Adaptogen, Ayurvedic, Sacred, Mental serenity

#### Art of Living: Ecological Perspective

Mentor – Prof. Anupama M. Hasija Student Team – Yuvraj, K. Sivamayan, Somya Singh, Satish Jaiswal Shaheed Bhagat Singh Evening College, University of Delhi

"There is enough for everybody's needs and not for everybody's greed."

This research paper takes you to the mystical world of ancient India where the 'Art of Living' and earnest community engagement converged to nurture and conserve the environment .The rich heritage of India encompasses profound philosophies and practices that fostered a harmonious coexistence between communities .The primary motivation behind this research is to investigate the ancient Indian philosophies, historical accounts to unearth the wisdom of ancient India and to understand the dynamic of community involvement in the environmental sustainability. The study endeavors to evaluate the feasibility and practicality of these ancient practices and how applying them can address contemporary societal issues like declining community cohesion, detachment from the environment, erosion of thinking capacity due to excessive tech dependency and rise in materialistic tendency because of unjustified never-ending needs of humans.

The research is based on a multidisciplinary approach involving a comprehensive analysis of ancient Indian text including religious, philosophical and historical records, to extract insight into the ancient 'Art of Living'. The research methods would involve interaction, surveys, interviews with communities to assess their perception of ancient ways of living, environmental principles to evaluate the potential application of these in present day scenario. The analysis of the ancient text reveals a comprehensive understanding of the principles governing the art of living in ancient India, emphasizing concepts such as Dharma (righteousness) and Karma (action) towards the ecology. Furthermore, it is significant to note that ancient Indian society was deeply rooted in beliefs and practices where in their ambiance was their way of sustenance and they kept nature at a very higher pedestal. People then often worshiped Nature (Trees, Mountains and Rivers) as gods who provided for their survival. They never exploited the nature or allowed it to be overused. This ecological consciousness played a significant role in shaping their approach to community engagement and environmental sustainability.

In today's context, the greed for having more and more and the madness of hoarding goods, the blind race for consumerism is taking its toll on the resources. Humans have this urge of exploiting and reaching the unreachable extents of nature as a result rendering it to destruction. The carrying capacity of Earth is being compromised so much so that we humans are bearing the brunt of Natural/Anthropogenic disasters every now and then.

Hence, we are trying to derive some ecological consciousness ways that existed in ancient period to be followed as an effort to restore the ecological imbalance. The community participation in various aspects of life, including education, governance, health, and social vwell-being, demonstrates its pivotal role in fostering a harmonious and balanced society. The

comparison of these ancient practices with modern societal frameworks showcases their potential to address current challenges, such as social isolation, mental health issues, and the erosion of community bonds.

The findings of this research hold significant implications for contemporary society. They offer valuable insights into reviving community engagement and the principles of the art of living, paving the way for holistic approaches to societal issues following ecological values. By reimagining and implementing aspects of community participation from ancient Indian civilization, modern societies can potentially save this fragile earth from getting furthermore deteriorated and depleted.

#### REMEMBER THERE IS NO PLANET B.

KEYWORDS: Art of Living, Ecological Consciousness, Consumerism, Carrying Capacity, Natural/Anthropogenic Disasters

#### **Expanding Environment Awareness through Human-Induced Activities**

Mentor – Dr. Swarnima Singh

Student Team – Neha Gupta, Shridati Hait, Durganjanjal Jaiswal, Shreya Malviya Deen Dayal Upadhaya Gorakhpur University, Gorakhpur, Uttar Pradesh

The conscience is our eternal guide through which we could analyse our right and wrong conducts and motives. It is very important to analyse our achievements by taking environment as our priority. Over the course of the 20th century, the development of human civilization, increasing population growth and its need for material resources led to degradation of the environment.

The difference between nature and human beings have been misinterpreted as opposing forces. Careful but callous experimentation with nature that produces achievements as well as harmful bi-products can be extortionate. By being ecologically conscious, one can make smart actions and behaviour towards nature as well as learn how to predict consequences before they happen and take proper action against them.

Traditional Indian agricultural practices such as crop rotation, organic farming, natural irrigation process, and discouraging pollution of sacred rivers were more sustainable and eco-friendly compared to modern industrial methods. Presently the Govt. of India is taking many crucial measures to spread consciousness regarding the prevailing environmental conditions, such as Article 48-A endeavor to protect, improve and safeguard the natural environment of the country.

India has made notable strides in environmental conservation, including initiatives like the National Green Tribunal, afforestation programme and the Swacch Bharat Abhiyan promoting cleanliness and sanitation. Additionally, India has shown commitment to renewable energy with ambitious targets for solar and wind power, emphasizing a sustainable and green future.

Also G20 summit in 2023 took several steps to address climatic changes as carbon neutrality, green financing, zero and low emission technology, etc. The UP state is the at the second highest position by holding 48 GI tax. Our DDU university is a live example to emphasise upon ecological consciousness, for example: - The Green Campus Initiative, Zero Waste Management Programme, No vehicle day etc. It also followed the UNO guideline to prohibit RO. Our college is also certified on this and got NAAC A++ rank. These all should an eye opener for students and to make them realise there responsibilities for environment.

In conclusion, conservation efforts, ethical resource use, and a holistic understanding of our impact are essential for mitigating anthropogenic effects and promoting a balanced and strong planet. In the end it will be shown that human values are not to be grafted, they require rather perseverance and cultural base. Hence, scientific and cultural efforts should proceed hand in hand for the progress of humanity.

Keywords: Conscience, Careful but callous, Extortionate, Sustainable and eco-friendly, Mitigating anthropogenic effects.

Reference: Environment and ecology by Majid Hussain and Internet.

# From Vedic Wisdom to Modern Sustainability: Exploring Ecological Consciousness in Ancient India and its relevance today.

Mentor – Dr. Shadab Khan Student Team – Shristi, Aashi Varshney, Sweta Rather, Madhu Kumari Aditi Mahavidhyalaya, University of Delhi

This research paper delves into the profound ecological consciousness deeply rooted in ancient Indian philosophy, spirituality, and cultural practices. It emphasized the importance of living in harmony with nature and the interconnectedness of beings. The Vedas, Upanishads, Bhagavad Gita, and Jataka Tales all emphasized environmental stewardship and biodiversity preservation. They celebrated nature through rituals, festivals, and art forms, fostering a deep sense of connection and responsibility towards the environment. The present study integrates perception from various epochs including vedic reverence from the Rigveda and Atharvaveda. Ashoka' edicts promoting wildlife conservation by the Mauryan dynasty. "Kallanai," the Chola Dynasty' water management exemplified the blend of river reverence and engineering brilliance. Gupta dynasty's sculpture, elaborate portrayals of nature shows a harmonious connection with the environment. Epics like Ramayana, Mahabharata show symbiotic relationships with nature. Bhagavad Gita supports Ahimsa, whereas Jataka tales provide pastlife lessons of Buddha which shows his compassion for nature. Shiv Purana and Vishnu Purana intricately weave mythology into a narrative of environmental ethics, portraying the deities as guardians of nature. Teaching Lord Mahavira adds a holistic dimension. This exploration illustrates an inclusive tapestry of India's ecological ethos, creating a legacy on environmental stewardship. People in ancient India were practicing organic and irrigation methods for agriculture which was significant for nature. Religion was probably used in ancient India as a tool to protect nature and natural resources and several instances of worshipping the trees have been reported from different parts of the country, besides a wide range of ethno forestry practices. Scriptures highlighted the significance of rivers and places of pilgrimage and worship located on their banks, sea-sides and mountains, besides paying tribute to various animals. Festivals like Vata Savitri, Amla Navmi, Nag Panchmi which bear a propitious linkage with various seasons made their way into their social ethos. India's earliest teachers were the gurus who taught in gurukulas and ashrams located far away from the hustle and bustle of towns in what could be called forest universities. Population growth along with urbanization and industrialization have brought economic growth and technological advancements, but they also pose environmental challenges like energy consumption, resource depletion, land degradation, and pollution. Deforestation, caused by industrial and agricultural expansion, disrupts biodiversity and causes climate change. Pollution affects ecosystems, wildlife, and human health. Addressing these issues requires collective efforts from governments, businesses, communities, and individuals, involving ecological consciousness, scientific research, policy interventions, and individual responsibility. This paper also highlights the growing movement towards ecological consciousness, drawing inspiration from ancient practices and traditional wisdom. By integrating age-old knowledge into contemporary environmental policies, this approach seeks to foster a deeper connection between humanity and the natural world. Emphasizing community involvement and awareness campaigns, this shift in perspective aims to promote sustainable living, preserve biodiversity, and mitigate the impacts of climate change. This research paper provides a comprehensive exploration of how ancient ecological consciousness in India can inspire and inform modern approaches to environmental stewardship, addressing the pressing challenges of our time.

#### **Eco-Spirituality in India**

#### Mentor – Dr. Anna Senrung Student Team – Isha Dagar, Isra Maryam, Aamya Bhargav, Aditi Anand Daulat Ram College, University of Delhi

"Paryavaranam" is a Sanskrit word which describes the eco nature of ancient India before the advent of modern science and technology. The abode has been always regarded as a living mechanism with a divine origin. The fauna and flora within it hold significant importance across cultures including agriculture, medicine, or religion. The lotus is symbolic of piety and enlightenment. The soul of ancient Indian medicinal healing practices such as Ayurveda, relied explicitly on plants and herbs. These are strongly evident in ancient Indian texts such as Charaka Samhita and Sushruta Samhita. The core traditional sustaining living system comprised of crop cultivation and domestication of animals. Enrichments solely relied on organic and sustainable farming practices like crop rotation and water management systems with a deep sense of environmental ethics and conservation. Sacred groves and protected areas and Upanishads, often praised the beauty and significance of the universe and all within it. In

recent times the modernization of India has led to detrimental environmental challenges, however, there is a growing awareness of the importance of ecological conservation. Many individuals, communities, and organizations are working towards sustainable living, reforestation, wildlife conservation, and the preservation of traditional knowledge about ecological practices. There is a renewed interest in ancient Indian philosophies and wisdom that emphasize a holistic approach to conservation of nature. Interestingly, efforts are being made to blend traditional wisdom with modern technologies to address these challenges. Concepts like and "Ahimsa" (non-violence) and & "Sarvodaya"; (the welfare of all) are being revisited in the context of environmental ethics. While ancient India had a profound ecological consciousness deeply rooted in spiritual and philosophical traditions, modern India is faced with the lack of these institutions. With the fast life, competition and stress that comes along, many are returning to their roots seeking spiritual connectedness and enlightenment. This leaves a great scope of inculcating the importance of conserving nature. The journey towards a sustainable and ecologically conscious India is ongoing and involves a complex interplay of historical, cultural, and contemporary factors.

Keywords: Fauna, flora, India culture, eco-spirituality, eco-conservation.

#### Sustainable Way of Living in the Modern World: Examples from the Santhal Lives

#### Mentor – Dr. Sumit Kumar

Student Team – Moubani Sarkar, Soumi Ghosh, Srija Mandal, Swapnil Mondal Visva-Bharati University, Shantiniketan, West Bengal

The proposed research delves into how the Santhal tribe living in and around Bolpur, India, has adapted their traditional way of life in the face of modernization. Despite the challenges posed by modernization in the fringe areas of towns and cities adjoining tribal habitats in general, the Santhal people in Bolpur, that is a university town and an international tourist destination, have succeeded in maintaining their eco-friendly practices of life and livelihood that is deeply rooted and ingrained in their rich cultural heritage with respect to architecture, traditional farming, forestry, and medicinal knowledge. The day-to-day interaction of the santhal tribal group residing in and around Bolpur with modern world, sets in the process of cultural assimilation thereby setting them apart from other tribal communities. Despite the process of cultural assimilation, they have succeeded in the harmonious adaptation of the modern and the traditional features of life and livelihood. The Santhal people of Bolpur are therefore an ideal unit of research to comprehensively study the unique lifestyle of the Santhal people in Bolpur and explore their sustainable practices, a mixed-method approach will be utilized. Primary data will be collected through open-ended interviews and questionnaires to obtain qualitative and quantitative insights, while secondary data can be gathered through archival research. This approach aims to provide a holistic understanding of the Santhal lifestyle in Bolpur. In this contemporary world, where people are dominating the nature with the tools of modernization and creating ecological disbalance, the Santhal community educates us to strike a harmonious balance between traditional and modern way of life without harming ecosystem. From the

study, we can know the finer nuances of the livelihood practices which are eco-friendly and sustainable. In the age of air conditioning, Santhal people prepare their houses using locally available natural resources in such a way that they give them similar comfort. Their indigenous medicinal practices having no side effects can be a viable substitute to the allopathic medicine. Their way of organic farming, especially unique pest control methods can be a well-accepted alternative method in agriculture. The dependency of Santhal people on forest produce for enriching their social, cultural and economic life is an ideal example in the modern society. In many other ways, we may derive a perfect reflection of traditional and modern lifestyle after researching the Santhal tribal people near Bolpur.

Keywords- Santhals, Sustainable, Cultural assimilation, Fringe area

#### **Environmental Consciousness in Indian Writing: A Comparative Study**

Mentor – Dr. Charu Chopra Student Team – Himani Purwar, Ansh Gurjar, Vaanshi Agarwal, Ansuriya Laishram Shaheed Bhagat Singh College, University of Delhi

In this paper, we have delved into the cross-generational landscape of eco-literature in India. We navigate through ancient Indian literature and contemporary works from a modern lens, uncovering problems, solutions and trends, while also revisiting the Indian culture and Anthropocentric versus Ecocentric discourse. To understand this, we have undertaken a multifaceted analysis of the structural elements of the literature that constructs the Ancient Indian ecology and contemporary attitude towards environment by an amalgamation of textual exploration and scanning of cinematic captures of ancient civilization and contemporary anthropological impacts on environment. We are familiar with the use of nature in Ancient Indian literature as a didactic form of expression. The evidence of this can be found in classic Hindu and tribal texts, Buddhist and Sanskritic stories such as the Jatakas, Panchatantra and Hitopadesh, through plays and other literature including folktales and poetry. A non-fictional perspective of history will confirm all such speculations. We have further analysed the ecofeminist aspects of our literary sources too. Contemporary trends in ecological consciousness are not only evident in real-world practices but have also permeated the realms of fiction and non-fiction literary works. In literature, both fiction and non-fiction works are increasingly exploring environmental themes, portraying the complex relationship between humanity and nature. The cinematic adaptation of ancient Indian civilization and contemporary disaster brought on by anthropogenic activity have contributed to the dilemma of ecological balance in the environment. Through this comparative study, the transition from the revered ecological presence of ancient India to its utilitarian role in modern India has been explored, aided by the dissection of cultural challenges and anthropocentric inclinations.

#### Reviving Traditional Wisdom: Exploring Ancient Texts for Modern Insights on Medicinal Plants and Safeguarding against Harmful Species

#### Mentor – Dr. Harmeet Kaur

Student Team - Ravneet, Deeksha Singh, Vishnu Upadhyay, Asmit Kumar, Harmeet Kaur Hansraj College, University of Delhi

Fostering innovations and training the youngsters is important for creating a knowledge ecosystem in the country. The National Education Policy (2020) has also focused on the importance of traditional knowledge and blending it in the curriculum.

The traditional knowledge system has been instrumental in standardizing various treatment methods of human diseases through observations. In our ancient texts the natural resources including plants and their importance has been aptly described. There is also mention of plants that are not good for direct human and animal consumption.

Historically, the evaluation of drugs and alcohol in ancient India has evolved significantly. Alcohol distillation can be traced back to 2000 BCE in the Indus Valley civilization, and references to the use of psychedelic substances like "soma" can be found in Vedic texts. However, as society evolved, taboos surrounding these substances solidified. Texts like the *Manusmriti* from the 3rd century CE began to restrict their use, emphasizing self-control and abstinence.

Despite these societal taboos, certain tantric traditions continued to use these substances for spiritual and ritualistic purposes. Texts like the "Mahanirvana Tantra" even mention cannabis in the context of enhancing sexual pleasure.

The first mention of cannabis, known as "bhanga," can be traced back to the Atharvaveda in 1800 BCE, where it was described as one of the five kingdoms of herbs. Its medicinal use is documented in the "Sushruta Samhita," where it was recommended for conditions like phlegm, catarrh, and diarrhea.

In the Sikh tradition of the 16th century, there was a strict prohibition against the consumption of substances like cannabis.

Kabir: Those who consume cannabis, fish, liquor, and betel leaf;

Lose the merit of pilgrimages, fasts, and rituals, and suffer in hell [rebirth] {Bhagat Kabir, SGGS, 1377}

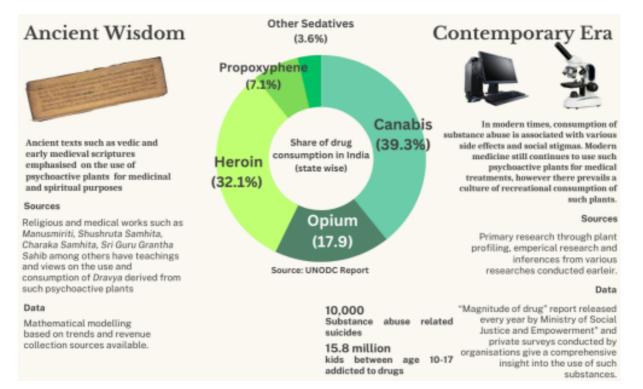
Turning to the modern era, India is grappling with a significant challenge of drug and substance abuse. In 2019, there were 705 reported deaths related to drug abuse, with regions like Kashmir and Punjab being hotspots for such cases. Substance abuse is also linked to approximately 10,000 annual suicides in the country.

A survey conducted in 2022 revealed that there are approximately 15.8 million drug-addicted children between the ages of 10 and 17 in India. These alarming statistics underscore the urgency of addressing the issue.

In this context, it becomes crucial to combine the insights from ancient wisdom with modern scientific approaches to combat substance abuse effectively. Integrating traditional knowledge into modern strategies for prevention, intervention, and undiscovered knowledge can offer a holistic approach to the problem. Therefore, it is important to study the ancient texts and understand them so that the knowledge of our ancestors does not go to waste and we can take some lessons.

In conclusion, the journey from ancient remedies to modern dilemmas provides a unique perspective on India's cultural, societal, and medical evolution. It underscores the importance of preserving traditional wisdom while addressing the challenges of today, particularly in the battle against substance abuse. Insights from the past can guide efforts to mitigate the adverse effects of drug and substance abuse in the modern world, creating a balanced and comprehensive approach to the issue.

#### Graphical Abstract-



#### Ecological Consciousness as the Living Tradition among the Tribal: A Study of the Select Myths of the Tribes of Odisha

#### Mentor – Dr. Jharana Rani Dhangadamajhi Student Team – Bright Prasahnt Kumar, Ayushman Rath, Lopamudra Sahu Kalahandi University, Kalahandi, Odisha

In the dominant colonial mode of thinking, governed by the so-called anthropocentric modernity, the tribal knowledge system of privileging nature (dharani) was (mis)construed as an assemblage of primitive traditions and mindless rituals and therefore was backgrounded to the margin during the colonial period in India. The same "epistemicide" of the tribals continued even after independence owing to the colonial hangover in the domain of knowledge formation up until very recently when the Tribal Knowledge System was acknowledges as a part and an important thrust area of research in the umbrella tradition of Indian Knowledge System. Continuing with this line of thought, we hypothesis and argue that the fundamental principle on which the Tribal Knowledge System is based the protection of nature vis a vis environment, as it is considered as the supreme being or the creator. Following the research methodology of close reading and textual analysis of the select myths of the tribals of Odisha (mostly Kalahandi), and empirical survey of their practices, we further propose that these myths about their concern for mother nature, are not just orally passed down stories since antiquity, but manifested as living traditions among these tribals.

Keywords: Myth, Tribal Knowledge System, Anthropocentricism, Ecological Consciousness, Living Tradition

#### Sacred Groves of India: Bridging Ancient Wisdom with Contemporary Environmental Challenges

#### Mentor - Dr. Savita

Student Team - Priyanjana Ghosh, Aditya Nair, Anshu Giri Goswami, Pushkar Tripathi College of Vocational Studies, University of Delhi

The ecological issues that our ancestors may have encountered in ancient India are different from those that we are currently facing. The dynamics have altered from when civilizations coexisted with Mother Nature and understood that she was essential to their existence. Even if today, people are aware of the reasons behind environmental degradation today, they nevertheless rely on technology to live comfortable lives. "The urge for a pleasant life has replaced the necessity for nature to exist". In connection with this, our paper has attempted to highlight the nature of sacred groves and their importance from Vedic times to the present.

Sacred groves, an Indian tradition of ecological consciousness, play a pivotal role in benefiting ecosystems by acting as sanctuaries for biodiversity and preserving a diverse range of plant and animal species, safeguarding genetic diversity. Rooted in cultural and spiritual traditions, these undisturbed patches of vegetation in India contribute significantly to the conservation of native flora and fauna, including endemic and threatened species. Prohibiting activities such

as hunting and logging, and sacred groves help maintain the integrity of natural habitats, promoting resilience and adaptability in the ecosystem. Furthermore, they contribute to water and soil conservation, regulate microclimates, sequester carbon, and preserve traditional ecological knowledge, showcasing a unique and harmonious coexistence of cultural practices and environmental stewardship within the Indian context. Sacred groves, revered for their spiritual and religious significance, have become crucial in mitigating the adverse effects of large-scale deforestation resulting from agricultural expansion in India. Although still relevant in rural landscapes, recent interest in this tradition has sparked scientific inquiry, primarily focusing on regions like the northeast, Western Ghats, and the east coast.

These forest lands are preserved by local and tribal communities all over India. Deoria in Maharashtra and Swami Shola in Tamil Nadu are modern-day examples of sacred groves. As depicted in Vedic texts and other literary traditions like the Upanishads, Arthshastra, Manusmriti, etc, the sacred groves serve as a fascinating lens through which one can examine the evolving ecological awareness in India. For example, Vedic literature, comprising the Rigveda, Samaveda, Yajurveda, and Atharvaveda, reflects a profound connection between ancient Indians and their natural surroundings. The sacred groves, often mentioned in these texts, held a special place in the cultural and ecological ethos of the time.

The Rigveda is filled with hymns that honour various elements of nature, such as hallowed trees and woods, like the sacred fig Ashvattha and the banyan Nyagrodha, which were revered and represented the interdependence of all life. The groves were thought to be homes of supernatural beings, so it was strictly forbidden to damage the existing flora and fauna of the time.

The aim of this study is to showcase how the sacred groves became the center of ethics and culture of Ancient Indian traditions-practices and their importance in contemporary times. Through their steadfast protection, these enclaves epitomize the delicate balance necessary for the sustainable cohabitation of humankind and nature since time immemorial.

#### The Ethnobotanical Lore of Ancient India: Exploring the Relationship Between Flora, Medicine, and Sustainability.

#### Mentor - Dr. Manoj Kumar V. Hiremath

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A keen awareness of the natural environment and the delicate equilibrium that exists between people and other living things is seen in ancient Indian writings. Ancient Indian treatises usually classify everything into a number of groups that include the entire natural world, including bacteria, ants, vegetables, placenta-bearing organisms, different kinds of trees, grasses, and grains. They brought with them the worldview found in the Vedas, the old Hindu texts, which held that dharma, a general term that includes truth, natural law, and cosmic order, must always be preserved for the good of all. The goddess "Bhumi" or "Prithvi" personifies the earth and is referred to as Mother Earth in Vedic literature. At the "Global Conference" in 1992 held in "Rio de Janeiro," the world's experts referred to Earth as "Mother Earth" for the first time, five thousand years later. Indian tradition is not out of touch with sustainable development. The idea of Aparigraha, for instance, describes the act of maintaining only what is essential and giving the remainder back to God or nature. If we see the first verse of Isha Upanishad it describes the value of Sustainability as

#### ईशावास्यमिदं सर्वं यत्किञ्च जगत्यांजगत्।

#### तने त्यक्तने भञ्ुजीथा मा गधः ृ कस्य स्विद्धनम ्॥ १ ॥

The Supreme God is the rightful owner of everything in the cosmos. Take only what you need, then put the remainder away so you can identify who owns it. Forests have been essential to human existence from the beginning of time. The earliest people who lived in India were well aware of the many advantages that trees might offer. Tree worship was widespread and wellliked as early as the Rigveda era. A common belief is that every tree has a Vriksa-devata, or "tree deity," who is worshiped with prayers and offerings of water, flowers, and sweets, and who is surrounded by holy threads. Historically, trees were thought to be living beings. Furthermore, planting trees continues to be a religious obligation for Hindus. Hinduism has long worshiped plants and trees, mostly for their mythological and sacred significance but also for their practicality. Hindu forefathers believed that it was their responsibility to preserve trees, and in order to do so, they gave each tree a sacred status in their religion. On the other hand, We can find very few descriptions of trees and woods in Greek literature, but there are tons of these descriptions in Indian literature, such as the Ramayana and Mahabharata, as if people lived under trees all the time. Indians have an extremely close relationship with trees. According to Hindu scripture, forests fall into three main kinds. The first is "Shrivan," the prosperous forest. Then there is "Tapovan," a place where one might seek truth and reflect like the sages did. The third is "Mahavana," a vast natural forest that provides refuge to all living things. This research paper would offer a thorough grasp of how ancient Indian societies used flora to interpret, engage with, and preserve their natural surroundings with foresight of sustainability.

Keywords- Ancient Indian Consciousness, Flora, Medicine, Ecological and Sustainability Etc.

#### "Sacred River" - Ecological Consciousness in Ancient India, Life Then and Now

#### Mentor – Dr. Neha Mishra

Student Team – Shagun Singh, Sneha Arora, Bhumi Mishra, Tamanna Dalal Indraprastha College for Women, University of Delhi

The research paper explores the profound ecological consciousness that historically characterized the relationship between sacred rivers in ancient India and their contemporary status. These rivers were revered as divine entities, and this spiritual reverence was intricately linked with responsible wastewater treatment, water purification, and disposal practices. Sacred rivers in India played a crucial role in the intricate tapestry of life, connecting death, sustenance, and spiritual purification, serving as threads that bound the past, present, and future in an eloquent testament to the eternal dance of life. This ecological consciousness was rooted in Sanatana philosophy, which emphasized the interconnectedness of all life. By tracing the

historical origins of this ecological awareness, the paper highlights the modern challenges faced by these revered water bodies, including rapid urbanization and pollution. It underscores the pressing need for sustainable solutions such as bioremediation processes, constructed wetlands, and decentralized wastewater treatment facilities. By combining ancient wisdom with cuttingedge technology, the research provides a roadmap for rekindling the ecological consciousness that once thrived along these sacred rivers, aiming to ensure the perpetual sanctity and ecological well-being of these vital waterways for the benefit of current and future generations.

#### **Tulsi: A Botanical Devotion Lost in Commercial Translation**

#### Mentor – Dr. Pawan Kumar Student Team – Divya Deo, Nahal Anjum, Sneha Gautam, Aakriti Mishra Daulat Ram College, University of Delhi

Ecological consciousness in ancient India was a deeply ingrained virtue in the cultural and spiritual fabric of our society. One comes to find proof of this in the ancient texts, such as the Vedas and Upanishads, which emphasised the interconnectedness of all life and the importance of living in harmony with nature. In a land where spirituality abounds, veneration and reverence of nature garnered such an awareness and respect that ecological consciousness spilt over into religious consciousness, a perfect example being the plant Tulsi– *Ocimum sanctum*. Known by various names like Vrinda and Saili, Tulsi is still one of the most worshipped plants in India. So popular was this herb that according to C. A Kincaid "... it has often happened that a young Englishman riding past an Indian's house has seen a small plant growing...and enquired its name... the answer has been that it is the Tulsi". A verse from *Tulasi Stotram* reads as follows:

#### ''तुलस्यां सकलय देवय वसन्ति सततां यतः ।

#### अतस्तयमर्चयेल्लोके सवयचन्देवयन्समर्चयन्॥"

#### "(Salutations to Devi Tulasi) In Tulasi resides all Devas, always.

#### Hence worshipping Her in this World is equal to worshipping all Devas."

Other than a reserved place for Tulsi in scriptures such as *The Rigveda* and *The Atharveda* there is a plethora of myths and legends surrounding it as well as a myriad of cultural and local stories. It is evident that these folklores and local stories were serving the very purpose of connecting the people with the land and instilling a sense of devotion which would inspire hesitation when considering destroying these medicinally valuable plants. However, this ecological consciousness has diminished over time as now the focus is more on Tulsi's medicinal value and

uses, creating a disconnect between the people and nature. The increasing commercialization and consumerism has led to people viewing it as just an advantageous potted plant. After referring to various texts and classical literature supplemented with interviews (the empirical method), we were able to analyse the increasing gap between people and their ecological consciousness or lack thereof. This gap between the aspect of ecological awareness and commercialization has created an impact resulting in a loss of human consciousness towards that ecological consciousness and awareness about the environment.

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#### Historical Analysis of Ancient Indian Eco-Philosophy

Mentor – Mr. Dorje Dawa

Studemt Team – Harsh Kr. Mishra, Raj Shekhar, Gagandeep, Aditya Cluster Innovation Centre, University of Delhi

The rich tapestry of ancient Indian civilization is woven with profound ecological wisdom and a deep understanding of the relationship between humans and nature. Ancient India was home to a rich and diverse body of eco-philosophy, which emphasised the interconnectedness of humans and nature. This eco-philosophy was deeply rooted in the Vedas, Upanishads, and other sacred texts, which promoted a harmonious coexistence with the natural world. This study embarks on a historical analysis exploring its intricate tapestry, as well as relevance in contemporary times. Through a comparative analysis, the study juxtaposes ancient ecophilosophical ideals with modern environmental thought, elucidating both the continuities and transformations in ecological thinking. The analysis reveals the profound insights of ancient thinkers into concepts such as sustainability, interconnectedness, and nature conservation. By understanding the nuances of ancient Indian eco-philosophy, this research sheds light on the relevance of traditional knowledge in addressing contemporary environmental challenges. The scope of traditional ecological knowledge (TEK), traditional knowledge that has been collected over many years, preserved, and passed on to subsequent generations with the ability to sustain itself, has also been explored in this study. The study's conclusions not only add to the body of knowledge on environmental ethics but also offer practitioners, educators, and policymakers working in the field of sustainable development useful information. This research promotes the incorporation of traditional knowledge into contemporary ecological practices by bridging the gap between the past and the present, promoting a peaceful coexistence between humans and the natural world.

Keywords: Ancient India, Eco-Philosophy, Environmental Ethics, Sustainability, Interconnectedness, Vedic Literature, Hindu Philosophy, Jainism, Buddhism, Nature Conservation.

#### Sacred Wisdom and Sustainable Futures

#### Mentor – Vinita Sai Student Team – Sukand V Murugan, GS Rakshika, Vishal, Mustafa MD Amrita Vishwa Vidyapeetham, Chennai, Tamil Nadu

This paper is to abstract Indians' relationship with ecosystems from the ancient times to the present ones. As this paper would gradually prove, we Indian's have always been conscious about our surroundings, which we fondly call as 'Mother Nature.' In one of the best books on governance policies, the 'Arthashastra', Chanakya suggests the need to develop 'Abhayaranya' or 'Abhayavana', forest, and animal sanctuaries, where trees and animals would both reside free from the fear of slaughter. Kautilya gave the notion that new forests were to be planned at the time of anew state having been established, on an unoccupied land. The Arthashastra also revealed that the Mauryas designated specific forests to protect supplies of timber, as well as lions and tigers. The texts in the Arthashastra depict the importance shown to environment at the administrative level by our ancestors. Atharva Veda contains hymns that express reverence for the Earth, acknowledging it as a sacred and vital entity. For example, "The Earth is not for human beings alone, but also all other bipeds and insects and other creatures." (Atharva Veda 12.115)

The Republic of India has passed many laws concerning the protection of its environment. Directive Principles of State Policy, Article 48A says "the state shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country", Article 51-A states that "shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures." India is one of the parties of the Convention on Biological Diversity (CBD) treaty. The Indian Wildlife Protection Act 1972 protected the biodiversity. The 1988 National Forest Policy had conservation as its fundamental principle. In addition to these acts, the government passed the Environment (Protection) Act 1986 and Foreign Trade (Development and Regulation) Act 1992 for control of biodiversity. The Supreme Court of India, in its orders, includes executive actions and technical details of environmental actions to be implemented. Indeed, some critics of India's Supreme Court describe the Court as the Lords of Green Bench or Garbage Supervisor. Supporters of India's Supreme Court term these orders and the Indian bench as pioneering, both in terms of laying down new principles of law, and in delivering environmental justice. Being conscious about the environment, is the in-built nature of Indians. We believe in living a simple, down-to-earth life and regard elements of nature as pure and holy because we understand that living by keeping up a sustainable environment is the only possible way of survival. People still eat on banana leaves, drink tea in clay pots, grow plants of medicinal values viz Tulsi and Neem in their houses which clearly shows our attachment towards nature. Data was gathered from a wide range of people from different demographics in order to truly capture this "Now" part of our theme. "We must live for something besides making a living. If we do not permit earth to produce beauty ad joy, in the end it will not produce food either". This is how, practical consideration and those which are commonly, called moral, religious, aesthetic and sentimental join hands.

#### A Contrast on Ecological Responsiveness in India : Historical and Contemporary Analysis

#### Mentor – Dr. Ashwini Kumar Aghnihotri Student Team – Anuj Sharma, Chetan, Sresta, Ripunjoy Shaheed Bhagat Singh College, University of Delhi

#### Neti~Neti

India, being a country with rich ecological diversity and diverse geographical regions has an ancient history of ecological conscious activities but this consciousness has been declining significantly over the passage of time. This research paper primarily focuses on certain inclusive approaches of environment conservation and management ingrained in ancient India and ecological practices followed in present times. We have considered different environmental conscious activities in different regions of India as our study area. Natural Resources such as forests, forest products and non-timber forest products were found as basic sources of survival for living organisms during the initial period. In the beginning, natural resources were primary assets for the growth of agriculture, industry, urbanisation etc. Later, the environment started degrading slowly and steadily due to increased anthropogenic activities. Indian civilization, one of the oldest living civilization, has staunchly believed to be in harmony with nature. Our ancient religious texts such as Vedas (Rig Veda, Sama Veda, Yajur Veda and Atharva Veda), Aranyakas(forest works) Upanishad and Smritis contain many descriptions on environmental conservation and management as an implicit theme. The concept of environmental conservation and management were also prevalent in ancient India. However, in the present context these activities are less focused on the individual as well as collective level.

The objective is to explain the difference in ecological conscious activities in ancient India then and now. In the present context, although the ancient practices have declined, new practices, especially sustainable practices, are the need of the hour, including the mitigation practices which are essential for preventing environmental degradation.

**Keywords**: Ecological Diversity, Inclusive Ancient Practices, Anthropogenic Activities, Environmental degradation, Sustainable Practices, Mitigation Strategies, Contemporary Analysis.

#### **Cultural and Religious Festivals**

Mentor – Ms. Bhavya Suresh Student Team – Harsha, Padmaja, S. Logesh, Sarath P. Amrita Vishwa Vidyapeetham, Chennai, Tamil Nadu

Our topic religious and cultural festivals delve into the close relationship between these events and their significance as potent manifestations of ecological consciousness. Various festivals and religious observances have been used by ancient cultures worldwide to commemorate their relationship with the natural world. By encouraging respect for the natural world, environmentally friendly behaviours, and harmony with the planet, celebrations act as a link between humans and the environment. Festivals in this era symbolized a peaceful coexistence between humans and nature, rather than just being occasions to celebrate faith and tradition. This study explores how these antiquated customs fostered sustainability, respect for the natural world, and environmental awareness through an analysis of several festivals. Religious and cultural celebrations have long been a part of our Vedas. Passages from the Yajurveda, Atharvaveda, and Rigveda reveal the ecological and spiritual dimensions of traditional Indian wisdom, emphasizing the harmony between nature and humanity. The Rigveda celebrates spring as a symbol of rebirth, the Yajurveda extends protection to trees during Raksha Bandhan, and the Atharvaveda advocates for the conservation of the Earth's harvests. These verses convey a timeless philosophy of gratitude, connection, and environmental stewardship.

These Vedic references underscore India's enduring tradition of celebrating festivals in harmony with nature, recognizing the interdependence of people, ecosystems, and transcendence. Festivals offer an opportunity to express appreciation for the Earth's richness while addressing ecological concerns alongside cultural and religious activities. The evolution of cultural and religious festivals, influenced by globalization, technology, and shifting social norms, is marked by significant changes. Present-day celebrations, facilitated by technology, transcend geographical boundaries, fostering global participation but also becoming increasingly commercialized. Unlike the past, contemporary festivals often mix cultural rituals with extensive commercial activities. There is also a notable shift towards cultural sensitivity and inclusivity, a departure from the separate and communal nature of past celebrations. The secularization of some festivals prioritizes cultural and social aspects over strict religious observance, reflecting changing values. To address environmental issues, modern festivals incorporate eco-friendly activities, reflecting a growing awareness of their impact. These changes highlight a multifaceted transformation in how society approaches and practices cultural and religious festivals compared to historical norms.

In summary, the study of cultural and religious consciousness reveals a dynamic interaction between modernity and tradition. Expressions of identity vary, and the comparison between historical practices and contemporary trends illustrates a complex narrative shaped by globalization, technology, and environmental awareness. This investigation expands our understanding of diverse cultural and religious traditions, prompting reflection on the evolving nature of identity in an interconnected and ever-changing world.

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#### The Indigenous Food Systems in India during Monsoon Mentor – Dr. Rashmi Singh

#### Student Team – Kanishka Khewal, Kajal Rawal, Kanak Maheshwari, Yanu Bhandani Miranda House College, University of Delhi

In India, the monsoon stands out. Local communities' ancient food traditions, shaped by generations, come alive during this time. India is endowed with several indigenous food system that hold a cultural as well as ethnic significance along with nutritional values. The month of monsoon add to this significance by transforming the culinary landscape of India. Indian cuisine has a fascinating relationship with monsoon. The Indian spices serves as an antibacterial and antiviral properties to boost up the immunity while adding a earthy and distinct flavour to the cuisine. Monsoon vibrant platter sets a deeper appreciation for the diverse indigenous food system from Maharashtrian 'Vagheteyachi bhaji' and celebration of 'Hareli' by indigenous agrarian communities of Chattisgarh by partaking the medicinal brew of herbs and roots to a typical Janmashtami cuisine of 'Alvati' in the season of rain. The title itself provide a treasure chest of curiosity to unravel the rationale behind the food choices and practices across number of communities and societies of India. Through this research project, we object to understand the imprints of monsoon on the food choices of different communities. We tend to look at the scientific significance and religious reason for consuming different indigenous food in different seasons. The focus lies on the food which is avoided to protect against diseases with changing season and the cyclic change of culinary choices with seasons. Also, this project highlights the depth of indigenous knowledge woven into everyday life. This research evaluate the extent of governmental initiatives in assisting the small scale farming institute which is responsible for the production of monsoon seasonal food. It highlights the importance of tribal knowledge regarding the traditional food system which are passed on to generations. The team members will be conducting the primary data through questionnaire and conversation with the local community, and the secondary data from official statistics of Government of India in terms of production of different indigenous food species, we will be concluding that sustainability within farming is a crucial step in enhancing the significance of indigenous food. People are aware and tends to briefly explaining the cultural aliveness of Indian cuisine of monsoon season. We will be researching that local communities are not only eager to protecting the diversity of various species of Indian cuisine but also to openly creating a holistic approach to spread more and more knowledge about the ancient culture to the urban demography. The expected result of this study goes beyond academic knowledge. It will contribute to sustainable farming, healthy lifestyle, protecting biodiversity and livelihood.

#### The Influence of Ancient Indian Environmental Ethics on Modern Conservation Practices: Bridging Tradition and Sustainability

Mentor – Dr. Anandita Sarkar Student Team – Geetanshi Arora, Vasundhara, Riya Soni, Manshi Mishra Indraprastha College for Women, University of Delhi

Indian rituals and mantras, rooted in ancient wisdom, offer profound insights into the interconnected relationship between humanity and the natural world. These sacred verses reflect a deep reverence for nature, as evidenced in texts like the Pancatantra, which questions the ethical implications of achieving heavenly goals through the destruction of trees and

animals. Ancient wisdom and environmental harmony are evident in Kautilya's Arthaśāstra, where he emphasizes the vital role of natural resources in human sustenance, emphasizing that Earth's elements are not mere commodities but essential contributors to life's essence. The Atharvaveda further personifies these elements, expressing gratitude for the forces sustaining life, as seen in invocations for protection from the Sun, Agni, wind, Yama, and Sarasvati. The profound verses from AV. XIX. 9. 14 embody a holistic vision of ecological harmony and universal well-being, extending beyond individual welfare to embrace balance and peace across the cosmos, underscoring collective responsibility for the environment. In the Buddhist context, the Sigalovāda Sutta serves as a moral guide for environmental stewardship, drawing parallels between wealth accumulation and a bee gathering nectar, highlighting the importance of responsible resource use without harm, aligning with the core principle of Ahimsa, or nonviolence, central to Buddhist teachings. Ancient Indian rituals and mantras embody timeless environmental wisdom, emphasizing nature's value, interconnectedness, and guiding responsible coexistence, offering essential insights amid modern challenges. This research paper explores how the environmental wisdom embedded in ancient Indian rituals and texts continues to impact contemporary conservation efforts. This research will provide an insight to compare ancient principles with modern environmental policies, and analyse how traditional practices are being integrated into sustainable development initiatives. Additionally, it will discuss the challenges faced in preserving these traditions while adapting to the needs of our rapidly changing world.

KEYWORDS: Rituals, Harmony, Vedic text, Mantras, Environment Conservation

#### Echoes of the Past, Voices of the Present: Environmental Consciousness in Ancient and Modern Societies

#### Mentor – Dr. Nawin Kumar Tiwary Students - Anandita Kumari , Ashi Sharma , Amisha Haldar and Muskan Chopra Indraprastha College for Women, University of Delhi

Ancient societies, possessed a profound understanding of nature's vital importance. They grasped the intricate link between their well-being and the need to safeguard the environment. This deep-seated awareness was particularly evident in ancient India, where a profound reverence for nature resonated throughout numerous texts, including the *Arthashastra*, *Sathapatha Bhramanas*, Vedas, *Manusmriti*, the *Ramayana*, and the *Mahabharata*. These ancient scriptures underscored the significance of environmental conservation, emphasizing the fundamental elements of the universe: soil, water, energy, air, and void. In the early civilizations like the Harappan culture, a remarkable environmental consciousness was prominently displayed. Their urban planning showcased advanced features such as public baths, bathrooms, waste disposal systems, and underground drainage. These innovations indicated a sophisticated understanding of hygiene and sanitation, revealing their profound connection with the environment. Additionally, ancient Indian traditions, such as the preservation of sacred groves, further emphasized the spiritual bond between humanity and nature. These sacred groves, populated with ancient trees revered as divine entities, symbolized the coexistence between human beings and the natural world.

The teachings of influential scholars like Kautilya during the Mauryan period played a pivotal role in emphasizing environmental conservation. Kautilya's *Arthashastra*, a comprehensive ancient Indian treatise, explicitly prohibited the felling of green trees, imposing strict penalties

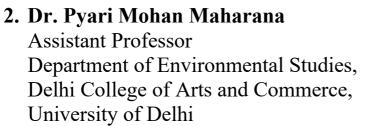
for violations. Moreover, Hindu religious beliefs significantly contributed to the conservation of wildlife. Specific animals such as lions, tigers, elephants, and peacocks were accorded sacred status, being revered as the vehicles of deities. This sacredness instilled a sense of reverence, fostering the protection of these species. The *Manusmriti*, another ancient Indian text, offered explicit guidelines and punishments for any harm inflicted upon trees or animals, underscoring the importance of ecological balance in their society. This research paper aims to showcase the Indian civilizations extraordinary ecological consciousness through their texts, practices, and beliefs. Their profound respect for nature, as reflected in stringent regulations and spiritual devotion, set an enduring example of environmental preservation for future generations. This legacy of environmental wisdom continues to inspire contemporary efforts toward sustainability and conservation.

KEY WORDS: Ancient Scriptures, environment, conservation, ecological consciousness

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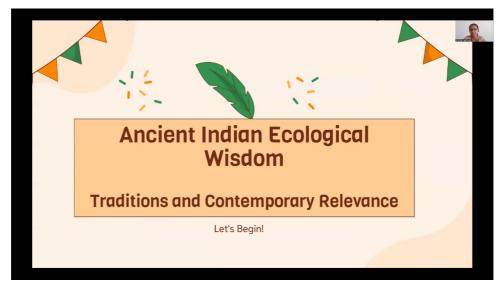




### SOME GLIMPSES FROM RESEARCH PROGRESS PRESENTATION – I







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# **CENTRE FOR INDIAN KNOWLEDGE SYSTEMS**

IN COLLABORATION WITH HARITHKRAM

SHAHEED BHAGAT SINGH COLLEGE UNIVERSITY OF DELHI