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*Oral History and Folklore: A Study of Traditional Environmental Knowledge and Perceptions
Among Ethnic groups of Aravalli Mountains of India*

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ABSTRACT

The proposed article intends to highlight oral history as an alternative source for the writing of history, particularly of the Aravalli mountain region of India, which is inhabited by numerous indigenous communities such as Bhil, Garasia, Meena, Saharia, Kathodi and Damore. The article is completely focused on the traditional knowledge of these ethnic groups because there is a dearth of written documents, archaeological and other evidence. In this study, we tried to present the richness of their narrative extracted from oral history, as a source of environmental facts and symbols concerning how they interact and perceive their ecosystem. Still, these ethnic groups believe in the traditional way of treatment of various ailments, by using medical plants rather than modern treatment. A study was conducted to record the plants used by tribes of Aravalli mountains to treat their ailments such as injuries, wounds, cuts, cold & fever, bone fractures, asthma, snake bites, sexual diseases etc. The oral history interview process allows these groups to reflect on their landscape aesthetics preferences, leading to bottom-up proposals for conservation, and reconstruction of landscape changes. As an alternative source, the study of oral traditions is significant to explain and understand societies in the context of preserving cultural diversity and protecting minority cultures of indigenous peoples, as it is a living and still

developing tradition, rather than just a memory of the past, particularly with the growth of ethnic identity crises in recent times.

The purpose of this research article is to examine: the factors that determine environmental perceptions among various ethnic groups; to study environmental knowledge which reflects in their belief systems and folklore; and how this role and environmental perceptions are affected by global environmental change in this region.

INTRODUCTION

Across the world, Traditional Environmental Knowledge is well-recognized and defined as an intellectual activity in a wide range of social, cultural, and environmental contexts. Many researchers also define Traditional Environmental Knowledge as a design of a people-centered approach; practice and innovations that are distinctively associated with many indigenous communities by customary laws; and a cultural heritage of the society which preserves and transmits between generations. In the developing world, Traditional Environmental Knowledge is a key element of the social capital to produce food, health and in shaping local visions and perceptions of the environment and society. Moreover, indigenous knowledge and management practices can provide ecosystem services and helps in understanding socio-ecological and adaptive management systems. In India too, Traditional Environmental Knowledge is a vital source to deal with health problems, food security, socio-cultural practices, environment and biodiversity conservation. Unfortunately, in many developing countries, this knowledge system and its values are not counted in the economic analysis of natural resources.

Since it was believed that everything in nature has some sort of power and spirit, likewise each plant has its own properties. The oral study of these plants brings to light numerous known or unknown uses of plants that have the potential of wider usage. It has relevance also in conservation of genetic resources. It helps in the search of new sources of drugs, food, fodder and other life supporting species found in nature.

The tribal people or ethnic groups of Aravalli Hills, like other ethnic groups in the world, have developed their own culture, customs, religious rites, taboos, totems, legends and myths, folklore, food, medicinal practices, etc. Numerous wild and cultivated plants play a very important and vital role among these cultures and this interrelationship has evolved other generations of experiences and practices. The ethnic groups of Aravalli hills depend on the plants found in their surroundings. They have acquired knowledge of economic and medicinal properties of many plants by trial and error. Consequently, they became the storehouse of knowledge of many useful as well as harmful plants accumulated and enriched through generations and passed on from one generation to another, without any written documents. It is therefore important to study the traditional knowledge system of these ethnic groups and it must be properly documented and preserved urgently, because most of the tribes are being assimilated into modern societies. The treasure of knowledge is fast disappearing.

Each ethnic group in itself is a self-reliant unit. They have great indigenous knowledge and skills regarding each and every aspect of life. Their knowledge about the environment and management of resources is unmatched. By studying the folklore of these groups, I tried to categorize their environmental knowledge and perceptions as follows:

1. Knowledge about Fauna - Many animals of Aravalli region have become the subject of superstition and come under attack due to their unusual appearances or strange characteristics. On the contrary, other animals such as snakes have been placed on pedestals due to native beliefs that they hold special wisdom or power. It means tribes categorized animals as useful and harmful. The oral study showed that they have precise knowledge about their habitats; they know where wild animals live and can be found. For example, in the folksongs of some ethnic groups there is a request to protect flying foxes as they find it to be of great utility. They consider the flying fox very useful because it eats the rind of Mahuwa (*Madhuca Indica*) seeds and drops clean seeds during night time. Tribals collect these seeds and extract oil out of them, which is used as butter in their kitchen. Folksongs and folktales also reveal their knowledge about snakes and various kinds of birds.
2. Knowledge about Flora – Plants played an important role in the life of Aravalli tribes. In their folklore plants are mentioned in the sources of religion and mythology, fairy tales, beliefs and magical rituals. The ethnic groups of Aravalli have good knowledge of various plants, flowers, fruits along with certain techniques to modify phenology according to their requirements. They have a strong knowledge about the medicinal value of plants and have their own drug preparation methodology. The present paper is entirely focused on the study of plants used by ethnic groups of Aravalli hills.

In the following pages a humble attempt has been made to present the common beliefs, superstitions and rituals regarding trees, plants, flowers, fruits, and vegetables which are prevalent among the ethnic groups of Aravalli Hills. The present study has been divided into two

parts. The first part is related to the folklore associated with plants and gives brief information about mythological trees, sacred trees, and trees and plants of non-sacred character. The later part includes the importance and medicinal use of those plants and trees and connects environmental knowledge with ecology.

Also, the main impacts of this research will be seen in establishing a dialogue between different approaches of sciences such as environmental sciences, climatology, meteorology, and anthropology and ethnic communities in the study regions, the practitioners of traditional knowledge. This study will fill the gap in research on environmental traditional knowledge in Aravalli hills and provide a possibility for comparison to similar studies among indigenous people in other parts of the world. It will also be a contribution to the understanding of how groups tied closely to the environment are affected and respond to environmental change.

STUDY AREA

The study was conducted in the region of Aravalli Hills. These Hills, one of the oldest hill systems of the world, form most dominant geological structure in the formation of the northern Indian terrain and drainage system. The Aravalli Hills form the sky-line of North-West India i.e. Gujarat, Rajasthan, Haryana states and Delhi union territory stretching from South-West and North-East direction. Extending for about 692kms from Palanpur in Gujarat up to Delhi through Rajasthan and Haryana states, this range forms the main water divide of the North-Indian drainage system. At a few places in the Aravalli range, the hills are discontinuing and gaps exist. In the absence of the adequate forest stock on the Aravalli hills, these gaps turned active and caused drifting of desert sand towards fertile plains engulfing parts of north India.

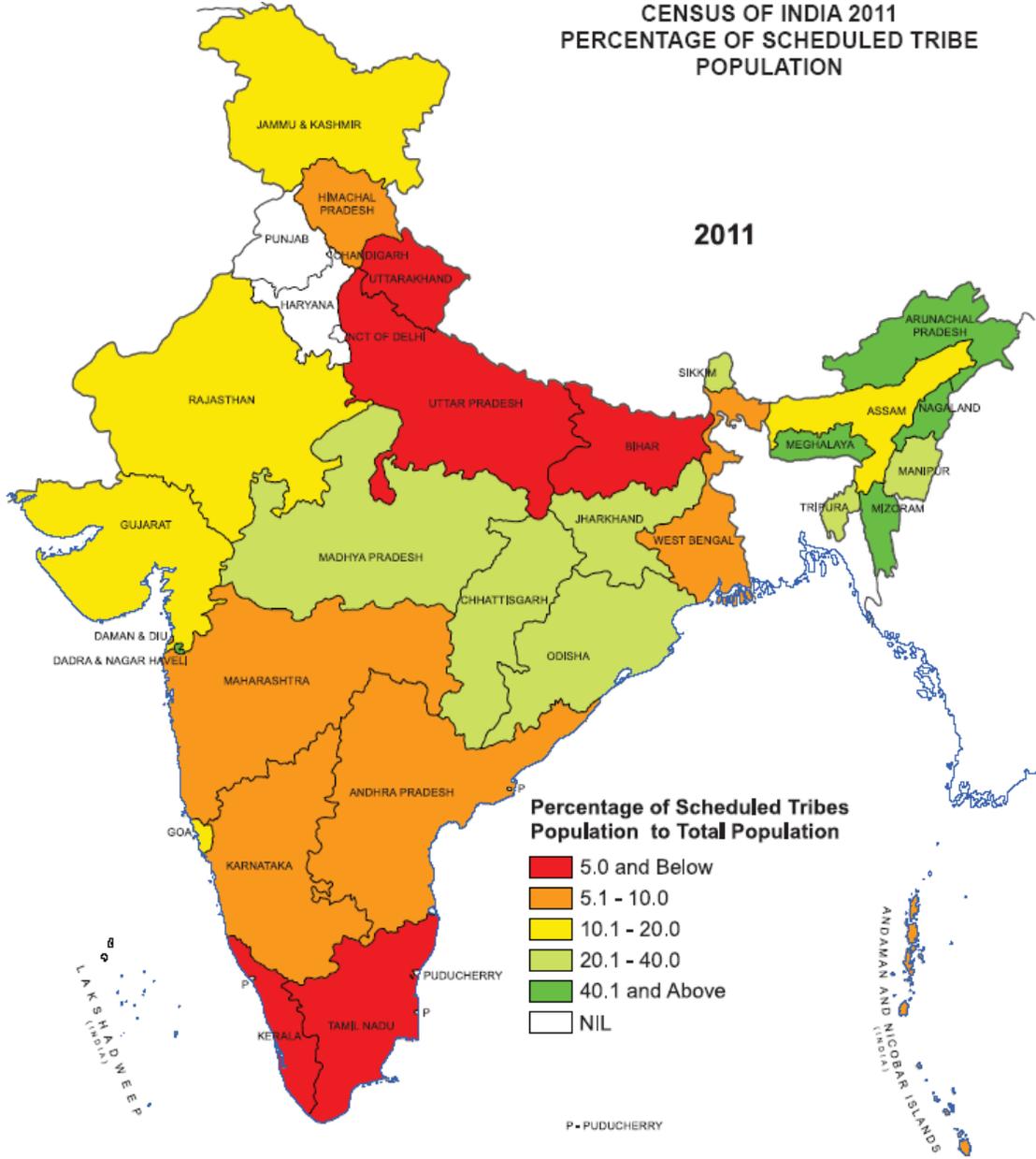
ETHNIC GROUPS IN ARAVALLI MOUNTAIN

About 12.44% of the total population living in Aravalli region belong to ethnic groups and tribes such as Bhil, Meena, Damor, Sahariya, Dhanka, Garasia, Kathodi, Kokna, Kolidhor, Naikara, Patelia. Nomadic tribes such as Banjara, Gadolia-Lohar, Kalbelia, Sikligar, Kanjar, Sansi, and Bagri further enrich the ethnic heritage of this region. These ethnic groups are widely distributed throughout the region and have considerable communication with each-other. As a result, most of the traditional environmental knowledge is passed by one group to the other.

Among the above-mentioned ethnic groups of Aravalli Hills six communities are dominating, namely, the Bhil, Meena, Garasia, Sahariya, Damor and Kathodi. The environmental knowledge has been a vital part of their food, medicine, culture, and ethnic practices from many generations, which led to harmony with nature. It has been emphasized that such practices are an important social activity which helps to define the participants' cultural identity and provides a link to their history, ancestors land and environmental philosophy. Moreover, quite a number of plants and animal species are, significantly, a symbol of culture. At the same time local people are in turmoil by the multiple rules and regulations on wild resources which are also a major reason for the change in environment knowledge and perceptions. The study aims to examine the importance of indigenous environmental knowledge in terms of local community dependency on wild plant resources and to understand factors of change on traditional knowledge.

CENSUS OF INDIA 2011
 PERCENTAGE OF SCHEDULED TRIBE
 POPULATION

2011



RESEARCH METHODOLOGY AND DATA COLLECTIONS

Oral History Methodology was used as the research methodology, as the Traditional Environmental Knowledge in Aravalli Hills is only preserved in memories. It is necessary to document it as soon as possible as it is disappearing with time. The Oral History Methodology for this project entailed three distinct tasks: preliminary research, designing and conducting semi-structured interviews, and writing and analyzing Interviews. Preliminary research involved the study of secondary sources such as literary records, biographical files, and the study of journal articles of folklore associated with plants and animals prevalent among ethnic groups. This information was also collected from the Forest Department, Government of Rajasthan and Botany Department of Mohan Lal Sukhadia University on implementation of policies and wild resource management. In terms of obtaining a preliminary understanding, I was able to identify the important types of environmental knowledge possessed by the elders of the community and some of the practices and beliefs that are essential to the traditional system of management.

Based on preliminary research, semi-structured interviews were designed with knowledgeable individuals, especially older members of various ethnic groups, along with open-ended questionnaire interviews with the general public, and focus group discussions with village people. The collection of folklore was one of the important and primary tasks for research. Folklore of these groups is available in the form of folksongs, folktales, rituals, and belief systems. After documenting the folklore, plants and animals mentioned in folklore were listed. On the basis of folklore, plants and tree resources related to traditional environmental knowledge were collected through a semi-structured questionnaire with many knowledgeable individuals from the study region (mentioned below). This included information on habitat,

purpose of use, available season, and part(s) of plant used. The plants used by local people were identified with the help of local flora. Focus group discussions were conducted in many villages with the participation of all household members. The reasons for change, and the challenges presented in the revitalization of indigenous knowledge were discussed. During group discussion the village peoples' responses on various forest and conservation policies were also discussed.

For better understanding, I classified my interview questionnaire into four parts: - Biographical Questions, Questions about Family Background, Questions about Community and Questions regarding Medicinal uses of plants.

Biographical Questions

Q: What is your name?

Q: How many members are there in your family?

Q: Where and when were you born?

Q: Where have you lived?

Q: What jobs/occupation have you do for a living now?

Q: How did you first get started with this particular tradition/skill? What got you interested?

Q: How did you learn your skills? Who taught you? When?

Q: What was the learning process like? What is the most challenging or difficult aspect of the tradition to learn? Why?

Questions about Family Background

Q: What do you know about your ancestors or family history? Are there stories you know about its history or origins? Has it undergone any changes?

Q: What were some of your first impressions and early experiences at this place? How did you developed traditions/rituals?

Q: Did you notice any traditions which were already existing in your community?

Q: Why these many rituals/traditions are important for you?

Q: What are you or your community doing to preserve traditions? Why?

Q: Are there any tradition or ritual that you have given up or changed? Why?

Q: What stories have come down to you about your parents and grandparents? More distant ancestors?

Q: What are some of your childhood memories? What festivals have you celebrated or games did you play when you were a child?

Q: Did you or your friends sing verses when you played games?

Q: What kind of home entertainment was there? Was there storytelling? Music? Were there craft traditions?

Q: Do you remember any verse or song which you usually sang or heard from any family members?

Q: Does your family have any special sayings or expressions? What are they? How did they come about?

Q: How festivals are traditionally celebrated in your family? Which festivals are the most important?

Q: Are there special rituals, customs, songs, foods for different – different occasions?

Q: Has your family created its own traditions and celebrations? What are they? How did they come about?

Q: What special foodways traditions does your family have?

Q: Have any recipes been preserved and passed down in your family from generation to generation? What are they?

Q: What are their origins? Have they changed over the years? How? Have any of the ingredients been adapted or changed? Why?

Q: Are there certain foods that are traditionally prepared for festivals and celebrations? Who makes them? Are there family stories connected to the preparation of special foods?

Questions about Community Life

Q: Do you know anything about your local community, their origin and the parts where members of your communities are living? Have they migrated from somewhere else?

Q: Your farmstead? What places stand out most in your mind and why? What are/were your neighbours like?

Q: What kinds of local gatherings and events are there? What stories and memories come to mind?

Q: What are the key characteristics of your community? What is its culture? How has it changed or developed over time?

Questions about Medicinal uses of Plant –

Q: How many varieties/ species of medicinal plants and their uses do you know?

Q: What special knowledge, skills, and abilities are needed to know the medicinal knowledge of plants? What techniques and methods?

Q: How do you prepare herbal medicines? What are the other materials/supplies/ingredients required for that? How are they prepared? Have they changed over time? How? Why?

Q: What tools are involved? How and when are they used?

Q: How do you judge excellence within the treatment? What standards and criteria are used to evaluate how effective it is?

One of the most important findings of the research was the recognition of the difficulty and complexity of documenting and interpreting environmental knowledge and perceptions among ethnic groups of Aravalli region. From a methodological standpoint, it was difficult to design a method that could be applied for all topics of investigation. The research paper identified the structured conversational approach to interviewing, supplemented by participant observation, as the best method to document traditional knowledge. It also identified avoidable pitfalls in the translation of different knowledge systems, culturally appropriate methods of eliciting information, and proper procedures for the conduct of participatory community research in ethnic communities.

FOLKLORE ASSOCIATED WITH FAUNA

In the Aravalli region, many sacred groves exist. These groves are usually dedicated to local folk deities or tree spirits (Van Devi or Devta). These spaces are protected by ethnic groups because of their religious beliefs and traditional rituals that run through several generations and are called by various names such as 'Vani', 'Kenkri', 'Oran', 'Shamlat Deh', 'Devbani' etc. The degree of sanctity of the sacred forests varies from one grove to another. In some forests even the dry foliage and fallen fruits are not touched. People believe that any kind of disturbance will offend the local deity, causing diseases, natural calamities or failure of crops. In other groves, deadwood or dried leaves may be picked up, but the alive tree or its branches are never cut. In the Aravalli range there are more than 550 sacred groves that have been documented till now.

Many plant species such as *Ficus bengalensis*, *Ficus carica*, *Mangifera indica*, *Michelia champaca*, *Phoenix dactylifera*, *Prunus amygdalu*, *Madhuca latifolia*, *Syzygium cuminii* etc., are protected and conserved by the ethnic groups of Aravalli Hills.

When the life of a human being becomes stable in the natural environment, he gets socialized and centralized, and makes some traditions or rituals for his or her belongings. The primitive men have certain ceremonies along with the basic needs of food and shelter. Such ceremonies include the event of marriage, birth and death, which are followed by a number of other ceremonies, with the advancement of culture and civilization. Among ethnic groups there are many rituals and beliefs associated with trees and plants. A number of fairs and congregations are also an essential part of social and cultural life and amusement of the tribes, and at the same time are the meeting grounds of many ethnic groups and their culture. In the present study, a number of plants used as rituals and belief system during various ceremonies and festivals are recorded from Aravalli Hills ethnic groups. Considering the limitation of a research paper some examples of these beliefs and rituals are mentioned here.

In this region many folk beliefs center around the Neem (*Azadirachta indica*) tree. Shitala (Cool one)—the goddess of smallpox— is said to inhabit it. She rests there seated in a swing. When she experiences the need for water, the gardener -- who is her traditional devotee -- supplies the same to the goddess. When a person suffers from smallpox, the leaves of this tree are used in several ways to lessen and relieve his ailment. He is fanned by the leafy twigs of this tree. Being the seat of Shitala -- the presiding deity of this disease -- its leaves are believed to possess a curative effect. There are many folksongs among the tribes in which a stirring appeal is made to the goddess to free the patient from the torment. In the bright half of the month of

Chaitra (March-April), which is known as Nav-Ratri, special importance is attached to it. The women worship it with offerings of flowers, vermilion and other fragrant objects.

Another belief associated with Neem (*Azadirachta indica*) is if a person living on the food cooked by using its wood as fuel will suffer no effect from snakebites. If a man is thought to have been bitten by a snake, he is asked to chew the leaves of Neem (*Azadirachta indica*) in order to find out for sure. If he finds its taste is bitter, he is regarded as free from the bite. This belief is also found in many other countries. In northern Europe the leaves and wood of the ash tree are regarded as the protector against snakebite. The people of Cornwall believe that no serpent can dare come near the ash. If a person keeps a branch of it with him, he is perfectly free from the fear of snakes. The leaves of the Neem are also used to drive away evil spirits. If a man is possessed of any spirit he is made to experience the bitter smell of the smoke of burning Neem leaves. In order to ward off the malicious spirits, small pieces of Neem are burnt in the firepot placed near the door of the confinement rooms. It is believed that the smoke and fire of this wood are powerful enough to prevent the entry of devils and demons into the room. The Banajaras, one of the ethnic groups of Aravalli Hills, tests the chastity of their wives by means of this tree. The husband throws a stick of Neem (*Azadirachta indica*) on the ground and says, "If you are a chaste wife, please lift up the staff in your hand."

Bombax ceiba Linn, locally known as 'Samel', a deciduous, beautiful and large tree is found throughout India. The plant is also mentioned in Mahabhart. The plant is used in various indigenous systems of medicine in India, China and South East Asian countries. There are many myths, legends, folktales, songs, customs and traditions associated with this tree among various tribes in India. The Garasia tribe of Aravalli hills protects the tree in a sacred grove called as

Maad Bavasi. The Garasia tribe identify B.ceiba tree so much with themselves that they sing a folk song ‘Hemlo ropalo re (Meaning O plant the hemlo; hemlo means semal). In this song, moon and clouds have been given the status of its father and mother, respectively and generally, the village chief and his wife are assigned the roles of its brother and sister–in-law and then a request is made to plant the tree and take care of it by considering it as one’s own relative. Shade of the tree is also praised in a song by the Garasia tribe.

Another example gleaned from this oral history research project, the bamboo (Dendrocalamus Strictus) tree occupies the same high status of sanctity as is enjoyed by the Samel and Neem trees. Due to its sacred nature, Lord Krishna used to play on a flute made out of green bamboo. He charmed the gopis (devotees) of Vrindavan with its sweet notes and tender melodies. Bamboos grow in clusters, so it is regarded as a symbol of a large progeny. It is known in Sanskrit as vansh which literally means a clan or family. In the study region, the green bamboo and its branches are used in making the bridal mandap (canopy) under which the marriage ceremonies are performed. The arthi (coffin) of a dead person is made out of green bamboos. It may be mentioned here that only green bamboo is regarded as sacred. The dry one is deprived of all its sacred nature.

It has been observed that most of ethnic groups of this region have faith in Hindu mythology. Bringing life, gaiety and merrymaking, the festivals descend on the tribal villages dispelling the monotony. Taking together the number of festivals is quite large, the major ones being few. Some of the plant folklore associated with main festivals, discussed during the interviews, include the following:

- On the occasion of Makar Sankranti, celebrated on the 14th of January when the sun enters in Zodiac sign 'Makar', the roasted seeds of *Sesamum indicum* mixed with jaggery to form laddoos are eaten on this day. The seeds of *Hordeum vulgare* and *Triticum aestivum* or *Pennisetum americanum* are distributed to poor beggars and green fodders are provided to cows and other cattle. Thin strips of bamboos are used to make kites.
- Mahashivratri is associated with worshipping Lord Shiva. The plant of *Datura innoxia* has long been associated with the worship of Shiva. During "Mahashivratri Poojan" flowers and fruits of *Datura innoxia* along with flowers of *Calotropis procera* and trifoliate leaves of *Aegle marmelos* are offered to "Shiva Linga". Devotees also offer raw fruits of *Ziziphus nummularia*, fruits of *Raphanus sativus*, *Daucus carota* and other seasonal fruits. Tribals prepare syrup from leaves of *Cannabis sativa* and sometimes they also mix the seeds of *Datura innoxia* in it.
- On the colorful festival Holi, these tribes use natural color and fragrance e.g. *Butea monosperma*, *Mangifera indica*, *Tecomella undulata* and *Capparis decidua*. A pole made up of *Prosopis cineraria* or *Acacia leucophloea* or *Acacia nilotica* is used in this festival to commemorate the victory of virtue over evil. It is planted nearly a month before the festival day. Idol of "Prahald" made from stem branch of *Prosopis cineraria* or *Ziziphus nummularia* is kept in the centre of Holi pile and is removed when roll is lit by the young ones (who are newly married), believing that their married life will be happy and prosperous. The cobs or ears of *Hordeum vulgare* or *Triticum aestivum* from fresh harvest are roasted, offered to others and eaten. Colour throwing takes place on the second day. Tribals throw coloured water on each other and smear "Gulal" made from flowers of *Butea monosperma*.
- Sheetla Asthami or locally known as "Basoda" and celebrated on the eighth day of Chaitra. This festival is celebrated for deity of small-pox known as "Sheetla Mata" and this deity is associated with *Azadirachta indica* tree. All the tribes and nomads celebrate this festival on a large scale. No

freshly prepared food is taken and no hot drinks are consumed on this day. Women worship deity with “rabri” prepared from *Pennisetum americanum* flour, boiled grains of *Pennisetum americanum* and rhizome of *Curcuma longa*. ‘Rabri’ of *Zea mays* flour is also used for worshipping the deity.

- Just at the start of winter, when a full moon night ‘Poornima’ occurs, a festival called Sharad Poornima is celebrated in moonlight. On this day moon-rays are believed to improve eyesight, tribals put thread in needle in moon light. Small pieces of *Cocos nucifera* fruits, ‘Kheer’ (prepared from milk and grains of *Oryza sativa*) are kept overnight in moonlight and consumed later to keep eyes healthy.

The results of the study revealed that, 61 wild edible plants, 126 medicinal plants and 8 plants are culturally important for various ethnic and tribal groups. Other than it 105 fodder plants and 56 famine food plants are also equally important in the study area. Following the indigenous knowledge, medicinal plants are mainly identified by their bark, leaf shape and smell. Total 126 medicinal plants, belonging to fifty seven different families are being used by the ethnic communities for ethnomedicinal value. Here the medicinal plants have been categorized on the basis of diseases in which they are used:

Blisters: *Abrus precatorius*, *Barleria prionitis* *Citrus medica*, *Antigonon leptopus* & *V. cinerea*

Antifertility: *Abrus precatorius*

Contraceptive: *Abrus precatorius*

Dysentery: *Pithecellobium dulce*, *Desmodium velutinum*, *Abutilon indicum*, *Tamarindus indica* and *Butea monosperma*

Urinary problems: *Abutilon indicum*, *Tribulus terrestris* and *Vernonia cinerea*

Stomachache: *Acacia catechu*, *Adina cardifolia*, *Citrus medica*, *Desmodium velutinum* and *Enicostemma littorale*

Sexual weakness: *Acacia leucophloea*, *Tridax procumbens* and *Vitex negundo*

Wound healing: *Acacia nilotica*, *Boswellia serrata*, *Catharanthus roseus*, *Heliotropium indicum*, *Mimosa pudica*, *Syzygium heyneanum*, *Tridax procumbens* and *Typha angustata*

Stone: *Tribulus terrestris* and *Actiniopteris radiata*

Ulcer: *Actiniopteris radiata*, *Argemone Mexicana* and *Heliotropium indicum*

Acidity: *Adansonia digitata*

Cough: *Adhatoda zeylanica*, *Allium sativum*, *Convolvulus microphyllus*, *Madhuca indica* and *Tridax procumbens*

Constipation: *Aegle marmelos*, *Amaranthus caudatus*, *Musa paradisiacal* and *Withania somnifera*

Diarrhoea: *Aegle marmelos*, *Boerhavia diffusa*, *Cissampelos pareira*, *Cleome gynandra*, *Datura stramonium*, *Desmodium velutinum*, *Ficus benghalensis*, *Hygrophila spinosa*, *Terminalia bellirica* and *Cassia fistula*

Blood clotting: *Ageratum conyzoides*

Abortifacient: *Alangium salvifolium* and *Ziziphus nummularia*

Blood pressure: *Terminalia arjuna* and *Alangium salvifolium*

Conjunctivitis/ Eye flu: *Albizia lebbeck*, *Calotropis gigantean*, *Heliotropium indicum*

Fever: *Allium sativum*, *Amaranthus caudatus*, *Argemone mexicana*, *Azadirachta indica*, *Convolvulus microphyllus*, *Enicostemma littorale*, *Hygrophila spinosa*, *Nyctanthes arbor-tristis*, *Tinospora cordifolia* and *Vernonia cinerea*

Liver disease: *Solanum nigrum*, *Pandanus fascicularius*, *Eclipta alba*, *Boerhavia diffusa*

Skin problems: *Aloe barbadensis*, *Argemone mexicana*, *Cleome gynandra*, *Desmodium velutinum*, *Grewia asiatica*, *Mimosa pudica*, *Origanum majorana*, *Oxalis corniculata*, *Phyllanthus emblica*, *Santalum album* and *Catharanthus roseus*

Guinea worm: *Butea monosperma* and *Ammannia baccifera*

Prickly heat/ Body coolant: *Annona squamosa*, *Buchanania latifolia*, *Lawsonia inermis*

Antivenom/ Snake bite: *Anogeissus latifolia*, *Aristolochia indica*, *Boerhavia diffusa*, *Celastrus paniculata*, *Desmodium velutinum*, *Plumbago zeylanica*

Tissue repair: *Anogeissus latifolia*

Malaria: *Argemone Mexicana*, *Diospyros melanoxylon* and *Nerium indicum*

Jaundice: *Argemone Mexicana*, *Boerhavia diffusa* and *Cuscuta reflexa*

Rheumatism: *Datura stramonium*, *Cardiospermum halicacabum*, *Aristolochia indica*, *Grewia asiatica*, *Lantana camara*, *Origanum majorana*, *Pongamia pinnata*, *Sida rhombifolia*, *Vitex negundo* and *Withania somnifera*

Blood purification: *Tinospora cordifolia*, *Hygrophila spinosa* and *Azadirachta indica*

Toothache: *Barleria cuspidata*, *Barleria prionitis*, *Pithecellobium dulce* and *Tephrosia purpurea*

Leprosy: *Terminalia bellirica*, *Centella asiatica*, *Bauhinia purpurea* and *Bauhinia variegata*

Laxative: *Bauhinia purpurea*, *Bauhinia variegata*, *Cordia dichotoma*, *Delbergia sisso*, *Nyctanthes arbor-tristis*, *Ricinus communis* and *Ziziphus nummularia*

Diuretic: *Tridax procumbens*, *Nyctanthes arbor-tristis*, *Sida rhombifolia*, *Boerhavia diffusa*, *Bombax ceiba* and *Centella asiatica*

Health tonic: *Bombax ceiba*, *Chlorophytum tuberosum*, *Ficus benghalensis*, *Ficus racemosa*,
Hemidesmus indicus, *Hygrophila spinosa* and *Tribulus terrestris*

Facial blemishes: *Buchanania latifolia*

Sprain: *Butea monosperma*, *Ocimum basilicum* and *Origanum majorana*

Bone fracture: *Butea monosperma*, *Cassia occidentalis*, *Grewia abutilifolia*

Swelling: *Grewia abutilifolia*, *Nerium indicum* and *Calotropis procera*

Piles: *Cannabis sativa* and *Eclipta alba*

Oral and Gum problems: *Cassia occidentalis* and *Phoenix sylvestris*

Galactagogue: *Cocculus hirsutus* and *Cassia tora*

Ring worm: *Cassia tora*, *Citrus medica*, *Cleome viscosa*, *Holoptelea integrifolia* **Asthma:**

Cassia tora, *Cissus quadrangularis* and *Citrus aurantifolia*

Eczema: *Citrus medica*, *Catharanthus roseus* and *Santalum album*

Dropsy: *Terminalia bellirica*, *Tridax procumbens* and *Celastrus paniculata*

Anemia: *Chlorophytum tuberosum*

Sunburn: *Chrozophora rottleri* and *Santalum album*

Pneumonia: *Cissampelos pareira*

Bronchitis: *Cissampelos pareira* and *Madhuca indica*

Scabies: *Nerium indicum* and *Cleome viscosa*

Boils and Pimples: *Cleome viscosa*, *Datura innoxia*, *Phoenix sylvestris* and *Vernonia cinerea*

Acne: *Catharanthus roseus*

Paralysis: *Cocculus hirsutus* and *Origanum majorana*

Diabetes: *Phyllanthus emblica*, *Syzygium cumini*, *Enicostemma littorale*

Purgative: *Cuscuta reflexa*

Abdominal pain: *Desmodium velutinum*, *Ruellia tuberosa* and *Terminalia arjuna*

Kidney disorders: *Eclipta alba*

Heart disease: *Holarrhena antidysenterica*

Itching: *Lantana camara* and *Madhuca indica*

Anti-inflammatory: *Launaea procumbens*

Coolent: *Lawsonia inermis*, *Santalum album*, *Tribulus terrestris* and *Annona squamosa*

Hair conditioner: *Hibiscus rosa-sinensis* and *Lawsonia inermis*

Giddiness: *Lawsonia inermis*

Vertigo: *Lawsonia inermis*

Cold: *Madhuca indica*

Gynecological disorders: *Mimosa pudica*

Vomit effect: *Ocimum basilicum* and *Syzygium cumini*

Hookworm: *Oxalis corniculata*

Insect bite: *Oxalis corniculata* and *Ziziphus mauritiana*

Vermifuge: *Ricinus communis*

Leucorrhoea: *Sida rhombifolia* and *Trapa natans*

Painful lactation: *Tinospora cordifolia*

Urinary stone: *Tribulus terrestris*

Sexual weakness: *Tridax procumbens* and *Vitex negundo*

Tonsils: *Vernonia cinerea*

Urinary infection: *Vernonia cinerea*



Ficus benghalensis L.



Grewia flevescence L.



Holoptelea integrifolia
(Roxb.) Planch



Kirganelia reticulata
(Poir.) Baill



Madhuca indica J. F. Gmel.



Moringa concanensis
Nimmo



Mucuna prurita Hk. f.



Pergularia daemia
(Forsk.) Chiov



Phyllanthus fraternus
Webster



Bombax ceiba L.



Plumbago zeylanica L.



Prosopis juliflora (Sw.) DC



Solanum indicum L.



Tephrosia villosa (L.) Pers



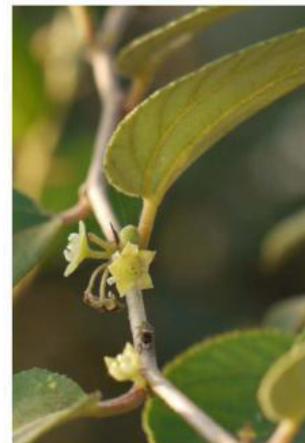
Tinospora cordifolia (Willd)
Miers ex. Hk. f. & Th



Tribulus terrestris L.



Vitex negundo L.



Zizyphus nummularia
(Burm. f.) W. & A.

Myths and beliefs associated with the ethnic culture used to be followed more strictly in earlier days, but they have eroded during the last few decades. Folklore no longer enjoys the same status and privilege as it used to in the past. Cultural changes among young people are so rapid that they no longer believe in the methods their ancestors followed to maintain the fragile ecosystem. This is a global tragedy, because with the disappearance of each indigenous group, the world loses an accumulated wealth of millennia of human experience and adaptation. For ecologists, traditional ecological knowledge offers a means to improve research and also to improve resource management and environmental impact assessment. One unfortunate matter that hinders the conservation of forests is that the ethnic communities living in the forest area are poor and so they depend on the environment to meet their vital domestic necessities, such as fuel wood, vegetables, medicinal plants etc. So, until and unless a viable option is provided to these people for sustaining their economic condition, any step for the conservation of the sacred groves will not be successful.

CONCLUDING REMARKS

The ethnic groups of the Aravalli Hills region have a vast wealth of plants, which are sources of medicinal compounds. Therefore, efforts that are more concerted are needed for the documentation of all the tribal medicines and their health practices useful in the treatment of different disorders. Ethnic groups are still depending on indigenous knowledge systems to use different plants for various uses in their day-to-day requirements. Today, Traditional Environmental Knowledge among ethnic groups and the modern cultures are at a critical crossroads. This knowledge and modernization both are essential for the well-being of not only the ethnic groups but also economically and technologically advanced peoples. Both can gain

from the exchange of ideas. But if the interchange is handled inappropriately it can be either of little benefit for the Indigenous people at best, or very harmful at worst. Therefore, much planning and cross-cultural communication must occur before sharing begins. Throughout the process, respect for indigenous and ethnic peoples, their cultures, territories, and resources is essential, as is the long term survival of the peoples, cultures, languages, and ecosystems.

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