

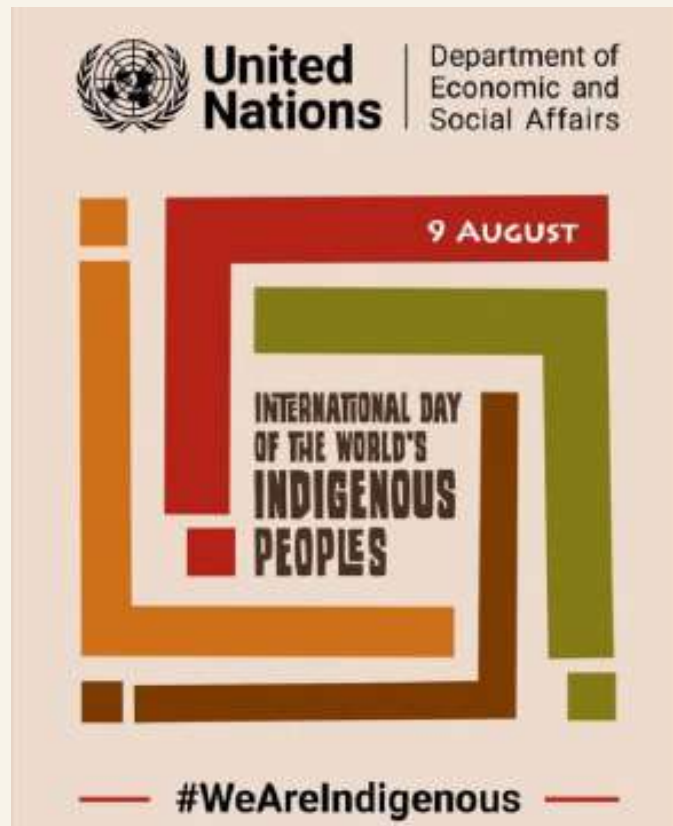


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INTERNATIONAL DAY OF THE WORLD'S INDIGENOUS PEOPLES

SPECIAL ISSUE



- **Climate Action and the Green Transition**
- **Mobilizing for Justice**
- **Intergenerational connections**

An opportunity to celebrate these communities and their knowledge

Empowering Jammu and Kashmir's Gujjar and Bakerwal Communities: Triumphs, Challenges, and Pathways to Progress

The Gujjar and Bakerwal communities, the largest ethnic tribe in Jammu and Kashmir, have played a crucial role in the state's economy, traditional knowledge, and cultural diversity. Despite their obvious importance, these communities have unfortunately been left behind in terms of social development due to poverty and a lack of educational opportunities.

Although the welfare of the Gujjar and Bakerwal communities has been a concern for successive governments, more needs to be done to uplift them from marginalization and provide them with the dignity they deserve in society.

JKPI takes great pride in understanding the challenges faced by these communities and is committed to working tirelessly to find solutions for their benefit. We have a particular interest in studying tribal studies as one of our main research areas.

We recognize the significant role that these communities play in the social, political, and cultural landscape of Jammu and Kashmir. Their resilience in the face of adversity is truly inspiring, as they strive to improve their lives and secure a better future.

This special issue serves as a tribute to the strength and determination of the Gujjar and Bakerwal communities. Our goal is to highlight the obstacles they face, while also showcasing the progress made and the potential for even greater accomplishments.



Sustaining Pastoral Livelihoods in J&K: Challenges and Recommendations



Pic credits: Kaleem Geelani

Dr. Smruti Smita Mohapatra Samal

Introduction

The Union Territory of Jammu and Kashmir has been an abode of the Himalayan mountains rife with abundant natural resources. There is an abundance of production in fruits, spices, flowers, dry fruits, wool, and cold fish in the region. Jammu & Kashmir has the world's largest transhumant population with 6.12 lakhs in numbers. With the Kashmiris and Dogras forming most of the population in this region of the Himalayan valley, the

Gujjars and Bakarwals form the third largest ethnicity in the region. Gujjars rear large ruminants such as cows and buffaloes, where Bakarwals are goat and sheep herdsman. The Chopans are the semi-nomads who are into the traditional rearing of sheep for meat and wool in Kashmir. The 2030 Agenda for Sustainable Development provides the 17 Sustainable Development Goals (SDGs), that recognize climate action to preserve the environment while sustaining the livelihood of the vulnerable, migrating, and nomadic communities. At this hour, the pastoralists of Jammu & Kashmir



who largely migrate every year need to be inclusive, safe, resilient, and sustainable.

Milk production in Jammu & Kashmir

In the agrarian economy of the Union Territory, the value of the milk economy in Jammu & Kashmir is Rs 9080 crores. The annual milk production of Jammu & Kashmir is 25.14 lakhs metric tonnes. Though 95% of the milk distribution in this region is still underorganized area, the concerned authorities and stakeholders are trying their best to push Jammu & Kashmir to witness the white revolution sustainably. Pastoralists have a huge contribution to make in this regard. Though they have contributed least to climate change, they are suffering the most from its deleterious effects. The average annual milk productivity per cow is estimated to rise from 2380 to 4300 litres by the year 2027.

Pastoralism in Kashmir Valley

The Gujjar and Bakarwal pastoralists live in the scattered valleys and alpine meadows of Jammu & Kashmir. The paucity of water resources and green pastures/fodder during winters for livestock in the Upper Himalayas compels them to move towards the Jammu province while rearing small ruminants like sheep and goats. Most of them are engaged in rearing goats, sheep and buffalo. They sell milk in the local market to earn their livelihood. With continuous movement, the unacceptance of milk in the nearest milk cooperative at the village level has led to the exploitation

of herdsmen by private dairies. Lack of market value chain, logistics, demand and supply of such milk, milk products, manure, hair and wool and woollen products prevents them to sell their products at a good price. Insufficient resources for skill development and training of these tribal pastoralists in the valley make them choose pastoralism as a source of livelihood for generations. Due to such biannual transhumance, there is reluctance by the government authorities to provide them grants in the long term.

Gujjars – the cow and buffalo keepers

Gujjar is an ethnic pastoral community of India, Pakistan, and Afghanistan. The community has a strong presence in the Union Territory of Jammu & Kashmir. Gujjars are mostly settled at the lower slopes and valleys of the Pir-Panjal and the Shivalik hills, where ecological conditions are suitable for their nomadic pastoral economy, especially during winters. The important areas of Gujjars and Bakarwal settlement concentration in Jammu District are Jandrah, Jahri, Grota, Golad, Charwal, Samoo, Rathi, and Bindi, and Upper Samba hills. The Gujjars are also highly concentrated in Rajouri and Poonch districts of Jammu province. Gujjars are of three categories - settled, half-settled, and homeless Gujjars. The settled Gujjars stay in one place and worked in agriculture. Half-settled Gujjars are those who though live in villages and do agriculture but for six months of summer, they leave for Pir Panjal Gujjar region and move further to



Drass and Kargil with their cattle where pastures are available for grazing. The homeless Gujjars can be further divided into two tribes - Dodhi/Banjara Gujjars and Bakarwal Gujjars. These people keep buffaloes and lead a nomadic life. In summer, these tribal pastoralists move to the lower areas - Reasi, Udampur and Kathua in Jammu province and Pathankot and Gurdaspur in Punjab with the flock of buffaloes. The Gujjars in Jammu City are spread around Akhnoor Road and Rajpura Mandi. When the summer sets in and the snow starts melting, these people start moving to the heights of the Himalayas where green grass is available sufficiently for their cattle. Gujjars are the milk producers in the Jammu region due to the sub-tropical climate. Their staple diet includes dairy products such as milk, curd, cheese, kalari, karan and lassi. They dry cheese in sunlight and then use it in winter. Dahi plays a major customary role in the Gujjar marriage rituals. They sell milk and ghee for their livelihood.

Milk – a priceless commodity for Gujjars

A Gujjar household with milk buffaloes and a son is considered to be illustrious. Gujjars consider milk very pious and do not let it get wasted. Gujjars honour milk more than respecting the elders. In spite of the community belief, Fareed Bhai, a Gujjar from Rajpura Mandi Morh, cites the plight and the loss incurred in milk production of 60-70 Gujjar milk producers in the Jammu region. Each family usually

has 50-80 buffaloes. He states that 5000 litres of milk are produced every day from 15-20 milch buffaloes owned by each family. Due to the transhumant lifestyle, Gujjar milk producers do not have access to refrigerators and in summer it becomes tough to keep milk without refrigeration for long. It gets spoilt within a few hours. Sometimes the dairy farmers keep ice cubes around the fresh milk or leave milk containers near the canals, where they inhabit. This leads to theft. With the increasing cost of fodder and green grass for buffaloes, it is tough to manage and rear buffaloes in the present times. With the lack of dairy plants nearby and proper marketing channels, milk processing has become a huge challenge. They are unable to sell milk in the markets at the right price choice.

The day of a Gujjar milk producer begins with waking up at 4 am, getting milk from buffaloes, collecting all the milk, and mostly keeping them near the canal for a few hours for preservation. If the milk fails to reach the markets in Jammu city on time, it gets spoilt. This compels the Gujjar milk producers to make kaladi/cheese out of them, but at times they throw them away in the canals when the milk is of no use. These dairy farmers prefer to prepare ghee, butter, kaladi in winter than in summer. Thus with such continuous struggle, the lives of Gujjar milk producers of Jammu have not improved much. With a low rate of milk and increasing expenditures, making education affordable for their children



becomes difficult for the guardians. While the cost of one buffalo ranges between Rs 40, 000 and Rs 1,00, 000, the buffalo purchased from Punjab, costs around Rs 2-3 lakhs each. The Nili Ravi buffaloes produce 18-20 litres of milk per day, while the local breeds produce 7-10 litres of milk per day. All the family members in a Gujjar family are usually involved in animal rearing and taking buffaloes out for grazing. With no or poor literacy level, Gujjar pastoralists have chosen to work this way since childhood, as they do not do any other work. Sometimes Gujjar milk producers sell their cows and buffaloes to pay to meet the rising demands for fodder. Therefore, Gujjars demand the revision of milk prices and get a fair price for their livestock milk.

Bakarwals – the sheep and goat herdsman

Bakarwal Gujjars and homeless Gujjars rear sheep and goats as their main source of livelihood. Bakarwals migrate to high summer pastures in the month of April during summers and return to lower winter pastures in Jammu province with the onset of winter. It takes one and a half months to reach the high pastures in Kashmir province and another one and a half months to return to low-lying pastures in Jammu province. Their stay at one seasonal pasture is around four months. Along with sheep and goats, they take horses to carry loads and Bhakarwal dogs as the guardian of the livestock. Each Bakarwal possesses around 50-150 goats and sheep. The winter season is usually

the time of ceremonies, functions, rituals and marriages that sees a sharp rise in the demand for chevon and mutton. The Bakarwals sell their goat and sheep to the local traders. Along with this, they also vend the wool of their sheep at the local wool centres. Horses and mules are put on rent at construction sites and tourist spots by them to meet for the arrangement of extra feed for their cattle.

Livestock breeds

The cattle and buffalo breeds reared by the pastoralists in Jammu & Kashmir include Haryana and Sahiwal, non-descript Kashmiri cattle, Holstein Friesian and Nili Ravi buffaloes. Buffaloes migrate from Punjab and are seen more in the Jammu region. Jammu & Kashmir has a diversity of apparel and superior carpet-type wool breeds such as Gaddi, Rampur Bushair, Bakarwal, Poonchi, Karnah, Gurez and Kashmir Merino. The endangered Bakarwal sheep breeds are found in the higher ranges of Pir Panjal mountains, Kashmir valley and low-lying hills of Jammu and Kashmir. The Poonchi Bakarwali sheep are extinct now. The goat breeds reared by Bakarwals are Bhakarwal goat, Kilan, Kaghani and Lubdi. These breeds are on the verge of extinction. Adult Bhakarwal goats grow well under low-input systems. Bakarwals value the extinct Yarkandi horses who survive extreme climates, thrive on coarse feed and fodder and travel with them during the seasonal migration to difficult topographies in the Upper Himalayas. Veterinary services are inaccessible to



the migratory pastoralists due to tough topography at high reaches. Foot rot is a common ailment seen during seasonal migration. Herbs such as kuth, googal, raimand, ratanjot, kodpa trees, rattibuti, jogipadshah, jatlijadi, hand, hulla, Nera, chora are used to cure the animals. With the efforts of dairy cooperatives in Jammu & Kashmir, there are more than 500 milk cooperatives to provide market access to the dairy farmers of the valley. Thus, the need for the sale of milk and wool from browsing goats and grazing sheep through off-farm and producer companies by the Bakarwal youth is necessary.

Recommendations

Alternate routes of migration after weather prediction needs to be done by the government and concerned local authorities. Mobile animal husbandry and veterinary units should be established at the village level.

A need-based vocational training/skill development programme is necessary for the youth of this community.

Protection of livestock from sudden natural calamities through training in disaster management by the youth is necessary.

There is a need to form producer companies for milk, milk products, and wool just like FPOs for apples and promote alternative livelihoods through rent, tourism, and handicrafts for the Gujjar, Bakarwal, and Chopian pastoral communities in the wake of hostile climatic conditions.

Basic education to understand instructions on health and animals' treatment and schemes relating to animal husbandry, various policies introduced by the respective state and central governments for their betterment and avail the same are necessary.

The youth of the pastoralist community must work along with the guidance of veterinary, agriculture, and livestock officers for herd improvement.

Record keeping on the number of herds, cost and returns from investment on improved herding and grazing, and distance covered on seasonal movements needs documentation for covering insurance of the livestock after unruly disasters and man-wildlife conflicts.

Good market linkage for meat, milk, butter, and wool by application of modern innovations is necessary. It is high time that the contribution of pastoralism to the national economy as the custodians of livestock in unpredictable climatic zones is recognized.

Ethnographic studies of pastoralism must be carried out to get valuable insights into the national forest policies and local adaptation strategies.

Concepts of transhumance and pastoralism must be incorporated into the curriculum of veterinary science and animal husbandry in India. Therefore, it is important to conserve indigenous livestock breeds, traditional knowledge, and ethno-veterinary practices (EVP) of the rarest and dwindling pastoralist ethnic tribal community of Jammu & Kashmir.



Exploring the traditional knowledge of Gujjars and Bakarwals

Zahoor Ahmad Dar

The entire so-called civilizational construct started when the human species appeared on the earth, began to observe things around them, and attempted to make sense of them according to their level of cognition and understanding. Knowledge Systems have always existed in some form. In ancient times it existed in modular form and in current times it is highly compartmentalized. Calling any knowledge system traditional or redundant will be grave injustice with the times when the utility of that knowledge and those practices served specific purposes. The development of any system or structure is often measured within a specific cultural and historical context, in a given time-space continuum in which it is embedded. Gujjars and Bakarwals are one such community whose allegiance and association with nature is primordial and who have rich historical and cultural inheritances.

Gujjars and Bakarwals have faced historical marginalization both on the socioeconomic and political front. Despite their marginalization, they have contributed immensely to the history,

culture, and knowledge of Jammu and Kashmir (J&K). Unfortunately, their contribution is often ignored, discredited, and under-represented amid the dominant culture and popular narratives. One often draws comparisons and binaries between traditional and modernity while talking about them. They are often subjected to stigmatization such as being traditional and backward. However, this is a flawed and biased argument that demands a re-examination of their vital contribution to society and knowledge production. However, their marginalization cannot be used to justify that they have nothing to offer in the construction and composition of rich knowledge to the larger society.

Indigenous people of Jammu and Kashmir especially Gujjars-Bakarwals are still practicing nomadic lifestyles amid many changes in the recent past. However, they have always been the main custodian of valuable traditional and indigenous knowledge about biodiversity, forest agriculture, herb shrubs, non-traditional food, and the local ecology of Jammu and Kashmir. Being local people, they can help in locating and identifying plants associated with various ethnobotanical uses which can be of immense help to



the researchers to conduct phytochemical studies. Besides having a rich repository of traditional knowledge of biodiversity, they have their own tribal cultural expressions which no doubt have been eroding and require immediate preservation.

Here is what Gujjars and Bakarwals have to offer in the scheme of traditional knowledge.

Protection to Ecology

The Gujjars and Bakarwals have undertaken various efforts for the preservation of ecology. These people share an equation and fine balance with the forest and the forest use. Especially Gujjars in the Union Territory of Jammu and Kashmir have helped the Forest Department in ascertaining the removal of illegal encroachments and marking the vital forest area. These tribes are abreast of what transpires in forests as they frequently keep searching for food for their livestock in the deeper pockets of forests which make them more informed about the area and its condition. They have signaled the excessive felling of forest trees and helped in conservation efforts. Further, they act as navigators in guiding habitable spots and valuable forest products as they trek these paths.

Inherited Craftsmanship

Two communities from Bakarwal viz Megh and Mihng are known for their wool craftsmanship. Woolen blankets are made by members of these tribal people. In addition to this, Bakarwals

also make Namdas – coarse wool rugs with colorful floral embroidery. They also make smaller blankets, taru used as quilts. These quilts are culturally special because they are meant as wedding gifts. These too are finely embroidered by women. Handcrafted items are also their significant cultural repository and they take it with them while migrating to Kashmir.

Gujjars are primarily dependent upon livestock for rearing and production. It is not just an occupation for them rather livestock represents a status symbol for them. The more animals a family owns, the more socially dignified they are considered to be. However, Gujjars have a certain inclination for buffaloes as compared to cattle as these animals adapt to the local climate and terrain and are hardy in nature. They have the ability to withstand stressful conditions and secrete more fat in their milk. Buffalo milk is used by the Gujjars for various purposes such as making Ghee, Butter, Curd, Lassi, Paneer, and Kaladi and selling the rest of the surplus.

Livelihoods Linked to Indigenous Ecology

The community not only knows the art of animal rearing but also possesses the art of healing. They are repositories of indigenous technical knowledge and have a practice of using naturally occurring herbs and shrubs for treating diseases of both humans and animals. The use of certain naturally growing plants for the treatment of animals also reduces their



economic burden. They have inherited these practices from their forefathers. Amid the existence of modern health facilities, Gujjars are still rooted in their old traditional means and methods of treatment, practices of rearing livestock, and relationship with their surroundings and hence maintaining a proper balance of the old and the new.

Traditional Veterinary Knowledge

Since Gujjars and Bakarwals are nomadic tribes, they are exposed to a wide array of knowledge about different types of plants and species, their use, and their utility. In the process of accumulation of knowledge, they pass it on from one generation to the next. They know how to use herbal plants. The herbal preparation includes decoction, oil, paste, juice, powder, and extract, used by the tribal community to treat different diseases such as respiratory diseases, gastro-intestinal problems, infections, skin problems, diarrhea, joint pain, dysentery, wounds, etc. smoke and even raw (unprocessed).

Gujjars and Bakarwals harness traditional veterinary knowledge for ages because they have been using plants to keep their livestock fit and healthy. To support this argument an extensive ethnobotanical survey was conducted in 12 villages of district Poonch between July 2018 and March 2020. It revealed that the leaves, roots, and the whole plant of *A. calamus* is used to treat various gastrointestinal issues in sheep, cows, buffalos, and goats in the district Doda of Jammu and Kashmir and also in West's

Darjeeling subdivision Bengal.

Tribals use the bulb powder of *Allium cepa* orally to animals to treat snakebites. In certain places such as the Bandipora district of J&K, people used the softballs prepared by crushed bulbs of *A. cepa* and salt as a remedy for cattle against anorexia, cold and cows stimulate the oestrus cycle. In addition to this, the whole plant is also used and generally given as feed. Furthermore, the plant paste mixed with water is applied to the pelvic region to treat the problem of oliguria in buffalo, Sheep, cow, and Goats in J&K. Some studies also suggest the use of crushed fresh roots against inflammation of hooves, warts, and weakness and abscissions in cows in the region.

According to Sharma and Kachroo, Gujjars as an ethnic group have their own traditional knowledge of herbal medicine inherited from their forefathers. It is interesting to record that the association between the incidence of certain diseases and the availability of curative herbs in the surroundings has been positive as revealed in micro-level research in the district Kishtwar.

Even Swami and Gupta argue that medicinal plants are now emerging as important bio-resources. Plants of several kinds are harvested for food and medicinal purposes, for example, Kutwol (a wild plant) is generally used to cure bones and joint problems. Walnut bark locally known as Dandas (walnut bark) is used to clean teeth. Chutyad (a wild herbal) is used for hair growth. Noon chai is considered to have a lot of medicinal



benefits. It helps in the reduction of stress, and building immunity, and has been called to be effective during pregnancy. However, ghee, sheera kadai, semolina sharbat, wild greeny, and eggs are the traditional diet for pregnant women. Kehwa or kodi chai is used to treat cough, cold, fever, and body aches. In addition, rice paste, or outer gourd covering is

used to treat mumps— a common illness among children of the community.

Many of the important medicinal plants used by the tribal communities are mentioned below (Table-1). The research work reveals that the tribal inhabitants of the Kishtwar district are using plants to treat a variety of ailments.

S. No.	Botanical Name	Family	Local Name	Traditional Use
1.	Portulaca oleracea Linn	Protulacaceae	Lunar, Lees hakh	Leaf extract is mixed with mustard oil and used as a hair tonic. Leaf extract is applied on the head to relieve headaches and is also used for acne. The root is bitter in taste and effective for chronic pain, abdominal pain, and rheumatism.
2.	Salvia moorcroftian a Wall. ex Benth	Lamiaceae	Shekter/ Bandarkoot.	The tribal give the herb as a remedy for high fever. Root extract is used for skin diseases.
3.	Rumex nepalensis Linn	Polygonaceae	Hobul	The leaves of the plant are cooked as wild vegetables. The roots of the plant are used against insect bites and cuts. The roots of the plant are used as a remedy for hair loss.
4.	Taraxacum officinale (L) Weber ex F.H. Wigg	Asteraceae	Handri	Flower extract mixed with lemon juice is taken to cure fever. The herb is used as a wild vegetable and extensively exploited for the same during the spring when there is a scarcity of cultivated vegetables in higher altitudes; The plant is considered highly nutritious and given to the women after delivery.
5.	Urtica dioica Linn	Urticaceae	Soi	Rheumatism: The leaves are crushed and a paste is made in mustard oil and applied to joints. The leaves are crushed and extract applied on hairs and act as anti-dandruff.
6.	Vicia sativa Linn	Fabaceae	Mataroo	The poultice made from the whole plant is externally applied twice a day for 10 days against skin abrasions.
7.	Rumex hastatus Linn	Polygonaceae	Chuch	The leaves of the plant are rubbed against the sting of Urtica dioica. Leaves are applied on wounds and cuts also.
8.	Digitalis purpurea Linn	Scrophularia ceae	Loshzata	The herb is given to patients suffering from cardiac problems. Leaf paste applied to sores and wounds
9.	Morus serrata Linn	Moraceae	Tul	The leaves of the plant are lopped for fodder; the fruit of the plant is edible. The wood of the plant is used as firewood.
10.	Fritillaria roylei D.Don	Liliaceae	Shethkar	The plant is used in many folk medicines, the tribal's of Kishtwar district use the plant to cure many diseases. The extract of the bulb is used as an antipyretic.
11.	Ficus palmata linn	Moraceae	Fog	People suffering from long illness are advised to take its fruits. It is easily digestible and good for health. The fruits are aromatic and delicious, astringent, diuretic
12.	Tulipa stellata Hook	Liliaceae	Cur Posh	Bulbs of the herb are eaten and are considered a good heart tonic.
13.	Cydonia oblonga Mill	Rosaceae	Beeeh/ Bom Chunth	The seeds are chewed to cure sore throat; the fruit of the plant is edible at maturity; Leaves, buds, and bark are astringent. Fruits are cardiac stimulants, tonics, and expectorants.
14.	Datura stramonium Linn	Solanaceae	Datur Boul	Seeds of the plant are collected at maturity. The dried seeds are crushed and mixed with mustered oil. The preparation thus obtained is stored. The prepared is used and applied externally on the ailing joint to relieve pain. The seeds are crushed and made into powder mixed with mustered oil to make a paste and applied to the hair at bedtime for 15-20 days as it acts as anti-dandruff.
15.	Digitalis lanata Ehrh	Plantaginacea e	Buth Posh	The herb is given to patients suffering from cardiac problems
16.	Euphorbia helioscopia Linn	Euphorbiacea e	Duduj	The latex of the plant is applied on skin eruptions to get rid of them. Plants are made into paste and used for healing wounds. The roasted seeds are given against cholera.
17.	Fragaria nubicola Lindl. ex Hook. F	Rosaceae	Sakhvan	The rhizome of the plant is used as a tea substitute along with the bark of Taxus baccata; The fruits are aromatic and delicious, astringent, and diuretic. The rhizome is used as a substitute for tea after grinding. A leaf infusion is used against diarrhea.
18.	Iris kashmiriana Baker	Iridaceae	Kabriposh/ Sosan	The nomads and the shepherds when more to the higher altitude with their cattle herd during the summer season use rhizomes of the plant. Fresh rhizomes are applied for relief from joint pain. Flowers are preferred by the tribals for their antiseptic value. Flower paste is applied to the infectious eye.



Table 1: Traditional uses of forest plants used by Gujjars and Bakarwal tribe

Recommendations

The traditional knowledge system is dwindling gradually. For instance, blankets are highly valued as wedding gifts, yet their place is slowly being taken by furniture and electric appliances. Their beautiful embroidery does not bring them any income since it needs demand and marketing. The lack of demand for goat hair and sheep wool leads to the non-utilization of wool. This leads to the diminishing of artisans working with wool. Hence government should take prompt action to review their traditional knowledge.

Bakarwals claim an identity crisis since their work is underrated and unrecognized. It is also difficult for them to sell wool due to the lack of mills. It is the responsibility of the state to ensure that they have the infrastructure in place to earn a livelihood. It is important to note that livelihood practices also compose identity. So their livelihood practices need to be preserved with the aid of state machinery.

To highlight the grave crisis and endangerment that traditional knowledge of Gujjar and Bakarwals is facing, it is important to quote noted academician and tribal activist Dr. Javaid Rahi. According to him: “The Bakarwals do not make any products nowadays. It has become chota kaam [small, menial work]. The alternative of synthetic wool is much cheaper.”

Universities of Jammu and Kashmir, Tribal

Department J&K, local non-governmental organizations, and researchers should collaborate and focus on the preservation and propagation of traditional knowledge and practices of tribes.

Mass media and extension contact could also have their indispensable roles and can be effectively used as a source of information dissemination about scientific rearing practices.

Also, in order to keep the benefit of these plants alive for future generations there is an urgent need of conserving these medicinal plants as well as the traditional knowledge of the plants.

Conclusion:

Unambiguously, Gujjars and Bakarwals have faced historical marginalization both at the socio-economic and political front yet they have contributed immensely in the domain of culture, history, and knowledge in J&K. One can safely argue that though they are under-represented politically or administratively, they have a rich cultural and traditional history which has not been documented properly. However, it would be unfair to call them traditional or undervaluing their corpus of knowledge. In fact, they are the torch bearer of modernity in any sense. There is a greater need to preserve their culture and help review the traditional practices the community has been doing over generations. They are not traditional, they in fact represent progenitors of a rich knowledge system that should be acknowledged and duly credited.



Gujjars & Bakarwals on the margins of the healthcare system

Zahoor Ahmad Dar

It is important to explore or describe a community or group statistically. Numbers matter because it brings to light the significant aspects of that group, their problems, demands, and aspirations. Numbers help us to question the binaries of accessibility and inaccessibility, representation, and redistribution of resources among its heterogeneous population. The lack of accessibility leads to the marginalization of a few communities from the larger picture of inclusive developmental activities, furthering the wedges of socio-economic disparities in the realms of education, poverty, employment, and health among them. It is very important for the state to put in welfare measures for the least advantaged sections of society for inclusive and sustainable development.

When it comes to the availability and accessibility of healthcare facilities for socially or culturally marginalized communities in the erstwhile state of Jammu and Kashmir (J&K), Gujjars and Bakarwals remain on the margins of the healthcare system.

J&K has a heterogeneous demography, with people belonging to different ethnic groups with regional and

spatial variations. According to data from the 2011 census, Jammu and Kashmir had a population of 1,25,41,302, with 66,40,662 men and 59,00,640 women. 14,93,299 people belonged to a scheduled tribe, which represented 11.9% of the state's total population. The Gujjar population of the former state was estimated to be 9.8 lakh, while the Bakarwal population was 2.25 lakh.

The Gujjar and Bakarwal communities are indigenous people who have traditionally lived as nomadic pastoralists in the northern regions of India, including Jammu and Kashmir, Himachal Pradesh, and Uttarakhand. These communities have a unique way of life that revolves around their livestock and the natural resources they depend on for their livelihoods. However, despite their rich cultural heritage, these communities face numerous challenges, including poverty, lack of access to education, and discrimination. These challenges have also contributed to the poor health status of these communities, with high infant mortality rates, malnutrition, and lack of access to healthcare facilities being major issues. The undernutrition, vitamin deficiencies, hypertension, diabetes mellitus, and thyroid problems that plague the tribal tribes in Jammu and Kashmir



are severe, and they are compounded by the fact that they have little access to healthcare.

According to the National Family Health Survey, the infant mortality rate among the Gujjar community is 46 deaths per 1,000 live births, while among the Bakarwal community, it is 60 deaths per 1,000 live births. Malnutrition is also a significant concern, with many children in these communities being underweight or stunted.

Prevalence of vitamin deficiency

Vitamin deficiency (VD) is highly prevalent among Kashmiri tribals with 66% having Vitamin D deficiency (VDD), 14.71% having insufficient and only 19.3% having sufficient serum 25-hydroxyvitamin D written as 25(OH) D levels despite their good sun exposure. This leads to stunting of children due to rickets and poor bone mass in adults.

Prevalence of hypertension

The studies reveal that the prevalence of hypertension is increasing among all ethnic groups across the globe. For instance, Ganaie conducted a cross-sectional survey that included 6808 tribal aged 20 years (5695 Gujjars and 1113 Bakarwals) from five randomly selected districts of Kashmir. The study finds that the participants belonging to different age groups were examined and the prevalence of hypertension overall was 41.4% (39.9-42.9%) (95% confidence interval (CI)). It also found that the prevalence of prehypertension (95% CI) was 35%

(33.7-36.6%) in women and 46.7% (44.1-49.1%) in males. Significant risk factors for hypertension included older age, passive smoking, family history, and obesity.

Prevalence of diabetes

Although diabetes prevalence has been reported to be less (1.26 %), which is somewhat like that of Europeans, the magnitude of prediabetes was very high (15%) despite the low magnitude of obesity (8%). Thyroid and Iodine deficiency disorders are quite rampant in people living in the upper reaches of mountains and Gujjars due to the non-availability of iodine in their food intake. Tribal peoples are still the most malnourished group in Indian culture today. According to the most recent data, 4.7 million Indian tribal children experience chronic malnutrition, which has an impact on their survival, development, learning, academic achievement, and adult productivity.

A study assessing the nutritional status and health issues of Gujjar women of Bandipora district of Kashmir showed that Gujjar women of Bandipora district are undernourished. Poor diet intake, ignorance, early marriage, and increased morbidity due to unsanitary practices and surroundings are a few possible causes of undernutrition in tribal women. The poor health status of the Gujjar and Bakarwal communities can be attributed to several factors. Poverty is one of the main reasons for poor health, as it limits access to food, clean water, and healthcare. Another study that assessed the socio-economic and demographic profile among the tribal



population of Kashmir and their major risk factors for some non-communicable diseases said that around 94.3% of the tribal population fell under low-income groups with an annual income of Rs. 25000 per year. Only 37.1% of subjects were educated. For 61.0% of tribal subjects, access to clean drinking water and adequate sanitation is a problem. It's interesting to note that 63–66% of the population was younger, and smoking was highly prevalent among both men and women (33.3% of men and 7.3% of women, respectively).

Many Gujjar and Bakarwal families live in remote areas and lack access to healthcare facilities, which contributes to the high infant mortality rate. Additionally, traditional cultural beliefs often prevent people from seeking medical care, leading to delays in seeking treatment or avoiding it altogether. When it comes to achieving the necessary income, education, health, and other conditions for excellent community nutrition, tribal communities, particularly women, lag behind other communities. Due to their lack of education, Gujjar women frequently live unhealthily complicated lives. The worst treatment of Gujjar women was also brought to light by Gul (2014), who demonstrated how their physical and mental frailty was caused by a life of hardship and toil. These women were also discovered to be at greater risk for pregnancy and childbirth.

The inability of these groups to learn about adequate nutrition and hygiene is another factor that contributes to poor

health. The scheduled Tribe has a literacy rate of 50.6%, which is significantly lower than the national average. It should be mentioned that the literacy rates among Gujjars and Bakarwals are appallingly low. According to data from the 2011 census, the literacy rates for men and women are respectively 60.6% and 39.7%.

Access to maternity care

Gujjar and Bakarwal women face unimaginable difficulties when it comes to healthcare services, owing to their remote geographic location and uneven terrain. It is a nightmare for impregnated ladies as the lack of road connectivity, transportation, communication, and uneven weather adds more misery to their already critical condition.

The pregnant ladies have to travel long distances before reaching the tertiary health care centers in Srinagar. Some deliver even before they can reach the health centers. On many occasions, they die on the way to the healthcare centers because it takes a considerable amount of time to reach the hospital. Lack of pedestal paths, and if any that again is sometimes not even fit to walk in uneven weather be it during rain, wind, or snow. Coming down from hills and mountains, and traversing this difficult terrain to avail transportation facilities is extremely difficult and fraught with risks. These indigenous communities complain that they are unable to avail of any services from PHCs near their areas also.

Ground realities and potentialities



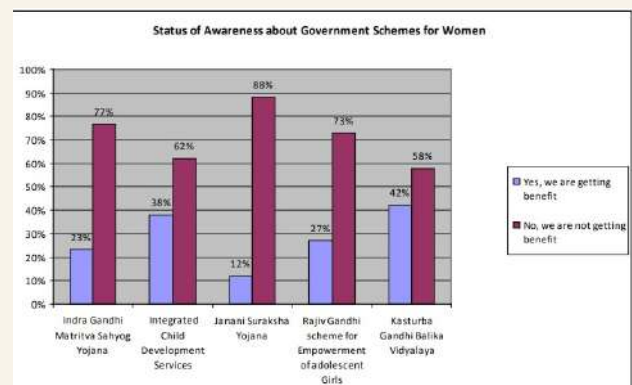
The reach of government and non-governmental organizations in implementing various programs for the healthcare and nutrition facilities of the Gujjars and Bakarwals communities is an ongoing process. While the Government has set up various mobile health clinics to tackle the accessibility conundrum, non-governmental organizations have been steadfast in performing their duties to provide adequate healthcare facilities and ensure optimal nutritional intake by setting up nutrition centers. Furthermore, unfaltering attention to the educational needs of the Gujjars and Bakarwal is being devoted. Many organizations have rooted for ameliorating their educational status which yields cross-sectoral dividends such as greater awareness regarding health, hygiene and nutrition, employment opportunities, and creating a class of civilized citizens, etc.

Despite sustained efforts to recuperate the decaying healthcare levels among the Gujjars and Bakarwals, an array of reports and research documents present a dreary reality. For instance, research titled “Traversing the margins: Access to healthcare by Bakarwals in remote and conflict-prone Himalayan regions of Jammu and Kashmir” found that just 51% of primary health care (PHC) facilities possessed the required physical infrastructure and services and owing to the scarcity of healthcare services, the lives of these communities remain on the periphery of inclusive development. Apart from the institutional and infrastructure

deficiencies, one of the most significant barriers to upgrading healthcare levels is the geographical location and isolation of Gujjars and Bakarwals.

Within the community fold, the most deplorable lot is that of the women. They are the worst affected when it comes to taking advantage of government programmes for better health and nutrition. There are no reservations about the fact that the Central, as well as State Governments, have launched a number of programmes and schemes for the betterment of rural as well as urban women like Indra Gandhi Matritva Sahyog Yojana, Integrated Child Development Services, Janani Suraksha Yojana, Rajiv Gandhi Scheme for Empowerment of adolescent Girls, Kasturba Gandhi Balika Vidyalaya, etc. nonetheless these schemes have not been able to assuage the condition of women belonging to the Gujjar and Bakkarwal community.

The following chart indicates the lack of awareness about government schemes for women.



Data from the World Bank suggests that at least 500 million females worldwide lack proper menstrual hygiene



management facilities. Another interesting research on menstruation among Gujjar girls, including both nomadic and semi-nomadic discovered that 96% handled their menstruation in a “very poor” and harmful manner, including the usage of soiled fabric, inappropriate cleaning of old cloth, and insufficient drying mechanisms. The sample included 200 females between the ages of 13 and 15. The study found that the sample females lacked conceptual clarity regarding the menstrual cycle before they began menstruating, which resulted in several gynecological difficulties. Approximately 83% of the sample females learned about menstruation from their peers. The study further found the predominance of numerous sociocultural taboos associated with menstruation. Approximately 98% of the girls showed an aversion to bathing on a regular basis during their menstrual cycle.

The human development index of trans-human communities in India is terrible. On account of geographical remoteness and logistical challenges, the villages predominantly inhabited by the Gujjars and Bakarwals are neglected. Another barrier to accessing healthcare services is the scarcity of low-cost drugs allied with the burden of hefty transportation costs. Transportation costs frequently surpass diagnostic and medical costs. People generally rely on home remedies or natural herbs to treat ailments as a result of these inhibiting factors. Cattle farming is the mainstay of their subsistence economy. As a result,

the expense of treatment is sometimes paid by selling the cattle. This leads to the loss of their source of income in order to facilitate the patient’s therapy.

Malnutrition and anaemia have been found to be on the rise in adolescent indigenous females. Health activities aimed specifically at teenage females must be created, with health care delivered to their homes. A conference was held to discuss the tribal strategy for the years 2022-23, which showed intentions to offer healthcare facilities in Dhoks, tribal settlements, and transit accommodations along migratory routes. Plans were discussed for the early procurement of Mobile Medical Units and Ambulances for tribal areas with dedicated service contracts, dedicated Aarogya Mitras to assist tribal patients, Tribal ASHAs for extending healthcare services in Dhoks, and deputation of doctors and paramedic staff. It was said that the Tribal Affairs Department has given INR 14.50 Cr under the First Tribal Health Plan for the purchase of machinery and equipment for the migratory population.

Lt Governor Manoj Sinha spoke about the tribal health plan, tribal bhavans, and mobile medical care units in Jammu, Srinagar, and Rajouri in 2021. He also discussed the government’s plans for transhumance pastoralists’ long-term livelihood, which include 1500 mini-farms, milk communities, and marketing training for youngsters. Until now, these plans have remained on paper, and tribal activists claim that the Tribal Welfare Department has merely served as a nodal



agency, receiving funds and distributing them to other departments without putting any checks and balances in place to ensure that the funds are used for the benefit of the tribal community.

Recommendations

On the front of fostering gender equality, improving the health of Gujjar women necessitates a significant and long-term commitment from the government. The Gujjar Community requires the development of dietary and health programmes. The health of the Gujjar and Bakarwal people is a difficult issue that requires a multifaceted strategy to effectively solve. While attempts have been made to address these communities' difficulties, more needs to be done to increase access to healthcare, nutrition, and education. Because poverty, illiteracy, and a lack of basic utilities are prevalent among tribal people, the government, NGOs, and civil society should collaborate to reduce socioeconomic inequities and enhance the health indices of these marginalized populations.

Improving the health of Gujjar and Bakerwal women necessitates a strong and persistent commitment from governments and other stakeholders, as well as a favorable policy environment and well-targeted resources. Furthermore, health insurance plans should be prioritized, since their absence places a great load on the family's budget. As a result, arranging an insurance policy for livestock losses should be considered.

Long-term increases in education

and awareness opportunities will benefit Gujjar and Bakerwal women and their family's health. Significant progress may also be made by enhancing and extending key health services for Gujjar and Bakerwal women, improving policies, and fostering more positive attitudes and behavior towards the health of Gujjar and Bakerwal women. Outreach programmes, mobile clinics, and community-based services can all be beneficial. Clustering services for women and children at the same location and time frequently improve beneficial interactions in health benefits and lowers Gujjar and Bakerwal women's time and travel expenditures, as well as service delivery costs.

According to the Economic Survey of Jammu and Kashmir, Gujjars and Bakerwals make up more than 42% of the Scheduled Tribe population and live below the poverty line. As a result, the government should take a long-term strategy to boost the "tribal economy," which is at the point of collapse owing to poverty and illiteracy. Transhumant and tribals are especially sensitive to climate change and global warming since they frequently live in steep and mountainous areas. They are frequently the first-hand victims of natural disasters. Disaster and first-aid training should be provided to them, particularly to kids, in order to preserve their health and lives.



Chopans: Pastoralists of Kashmir who sustain sheep farming in Kashmir



Mukhtar Dar

Introduction

Livestock rearing is indispensable to rural economies everywhere. J&K too is no exception. In Kashmir, besides the milch cattle, sheep farming has all along been part of farming traditions. But like in Europe and elsewhere, the farmers keep their sheep at home only for a brief period each year, the animals are sent to the high-altitude meadows and pastures for the remaining part. Obviously, the farmers themselves cannot do it, for this would

impact dozens of other farming chores they have to take care of. So, they hire the services of professional shepherds, who do this job for a certain price.

What is peculiar about Kashmir, however, is that this specialised job is carried out by a specific community – known as the Chopans. They come from families who have traditionally been involved in the business of sheep rearing. Unlike sheep farmers, these professional herders of Kashmir do not have any herds of their own. They tend to the other people's sheep – farmers hand over their animals to them for taking them to grazing



grounds up in the mountains where these people spend seven to eight months each year, before returning them down to their original owners. The sums they charge for these services is the only source of their livelihood.

The semi-nomadic Chopan community of Kashmir is integral to the business of sheep farming in Kashmir – particularly the traditional rearing of sheep for meat and wool. But there are many challenges that the pastoralists of Kashmir – the Chopans – are facing, that cast doubts about their long-term commitment to the job. Given their contribution to J&K's economy, it is the responsibility of the government to come up with some welfare programmes and initiatives for this community to ensure Chopans get their due.

What Chopans contribute to sheep farming in Kashmir?

The shepherd commonly called 'Pohl' in the Kashmiri language, comes from a specific community of Chopans (also called Wagays). They usually do not own the livestock, but they earn their living by farming the livestock, mostly sheep, of their clients – the farmers or agriculturalists. For ages, they have been serving the Zamindar (farmer) community of Kashmir and contributing immensely to the rural economy of J&K. Their contribution can be estimated by the fact that the J&K stands at 5th position in terms of sheep farming across India. The growth of this sector prominently depends upon the Chopan community – besides of

course the Bhakerwals, who are also full-time pastoralists.

However, what differentiates the Bhakerwals from the Chopans besides their ethnicity and language – former being ethnic Gujjars, speaking the same language and latter Kashmiris both in terms of ethnicity and language – is the fact that while Bhakerwals usually own their herds, the Chopans do not. They take care of someone else's livestock by taking them from plains to mountains amid rainfall and hot scorching weather during seven months of the year till winter approaches.

But for varied reasons this community has not been able to move up the social and economic ladder. This is why given a choice; they would not want to continue in the profession. In fact, an increasing number of their children are opting out and using their time in other vocations.

Understanding their plight

For ages having lived as pastoralists, the community hardly owns their livestock or agricultural lands. They have always lived under the constant shadow of poverty, backwardness and illiteracy. Since this community is entirely engaged in sheep farming, thus in search of facilitating better grazing lands for the livestock, they keep moving from one place to another in the higher reaches. This process of migration keeps Chopans isolated from society – they have to live a nomadic/semi-nomadic life.

Researches reveal that Chopans



are experiencing social exclusion and backwardness. The rate of illiteracy in this community is at a whopping 90 percent. Due to their migratory lifestyle, they have no or very little access to health care, education and other services. Then the social stigmas and inferiority tags attached with their job at the social and institutional level, have also ensured their complete social exclusion. Even their patrons from the farmers' community, who they have served for ages, have ensured that the Chopans are kept at bay in terms of their stakes in the larger village life across communities.

Government neglect

Successive governments in J&K have neither appreciated nor returned the favour of this community's contributions. For instance, while the similarly placed communities – like the Gujjars and Bakarwals, and (even though they are usually better off for the reasons that they graze their own herds) have grabbed several benefits and opportunities in jobs and education through reservations, no such benefits have accrued to the Chopans in Kashmir.

The inclusion of Gujjars, Bakarwals, Chopans of Ladakh and Gaddies of Himachal Pradesh in the Scheduled Tribe (ST) list in 1991 has ensured reservations for these communities, which has, in turn, provided them access to a plethora of opportunities by way of jobs and other benefits. But the situation of Chopans has remained static. They were not included in the ST list; nor were any administrative

measures initiated for their benefit or welfare.

In April 2000, the Legislative Assembly of the erstwhile state of Jammu and Kashmir passed a resolution for granting Schedule Tribe status to the Chopan community of Kashmir. However, two decades have passed but the Chopan community did not receive this legal status.

This section of the Kashmiri society is settled around 15 districts of J&K with a population of approximately 3 lakh people (unofficial data). The lack of political awareness, together with their economic and social backwardness has also failed them in terms of the political representation within the system. Consequently, they have failed to push the successive governments to frame policies that could have empowered them.

Living in the conditions of perennial poverty, backwardness and illiteracy, the burdens of life on the women of this community are no less harsh. They have to perform productive and reproductive roles, and contribute and manage household needs with very paltry resources available to them. Womenfolk of the Chopan community lack exposure; they don't have access to information and technology, and have limited opportunity to venture out for community-level social participation – as is available to the women of the non-migratory, settled communities. Just imagine, living in the higher reaches with their families, these women have no access to the facilities of healthcare and education; not to speak of



basic sanitation.

The continuous hardship of living this way, and of course the negligence by the governments is compelling the Chopan families to leave their profession, for trying to slug it out in other vocations for better economic and social status. This has made the future of Chopans and pastoralism very uncertain in Kashmir.

It will also have devastating effects on the environment and ecology. For centuries, these Chopans have been carrying out eco-friendly pastoral farming in the eco-fragile areas of Kashmir's high altitudes. They have possessed and preserved and also passed on across their generations the knowledge about the proper management of herds without affecting wildlife, forestry and fragile alpiners.

New entrants in this field (as is the new trend with people from the cities buying lands in the countryside to set up modern sheep farms) — may not be familiar with the knowledge and expertise of the Chopans. Consequently, they can damage the ecosystem of these beautiful far-off places.

Recommendations

Government should profile the working conditions, education and economic status of the Chopan community. On that basis, it should come up with policy initiatives and interventions that can be implemented in empowering the Chopan community. The initiatives should ensure equal access and special representation of

Chopans for their development.

As this section of society is engaged in sheep farming, the government should provide assistance to make them entrepreneurs within their own profession. They can be made livestock owners, dairy farm entrepreneurs. Rural development departments could play an active role in providing them such opportunities through different programmes.

The women of Chopans have more burdens on their shoulders and they have fewer opportunities to venture out to explore different opportunities. The National Rural Livelihood Mission has a role to play. Through the Self-Help Group scheme, special incentives can be provided to Chopan women that can provide jobs and can make them successful entrepreneurs.

The tourism department can also play a role by turning the Chopan youth into trekking guides as they have sound knowledge about the far-flung meadows in the hills and mountains of Kashmir. They also know how to deal with wild animals and how to survive in such places without impacting the environment.

Government or non-government actors have not shown much interest in studying the living and working conditions of the Chopans. For instance, there is no official data that would give us their exact population. It has also restricted the scope of their progress and development. Detailed studies should be carried out about the community – this is needed for any interventions for their welfare.



Climate Change: a threat to livelihood of Gujjars-Bakarwals

Zahoor Ahmad Dar

The change in global precipitation, increasing surface temperatures, receding of glaciers, and unseasonal snowfall are all manifestations of climate change, posing an unprecedented threat to mankind. Pastures have turned into barren lands. Due to a decrease in rainfall over the past 20 years, the transhumance calendars have shifted and rainy seasons are not predictable. The livelihood and existence of marginalized communities comprised of Gujjars and Bakarwals are no exception to this.

The Gujjars and Bakarwals are nomadic tribes who live in the Himalayan mountains of South Asia, from the Pir Panjal Range to Hindukush and Ladakh. They can be found throughout the Kashmir region between India and Pakistan, as well as in Nuristan Province in northeast Afghanistan.

Jammu and Kashmir has 12 Schedule Tribes. The Union Territory's total population of Schedule Tribes is 14,93,299, according to the 2011 Census. Gujjar is the most populous of the 12

Schedule Tribes, with a population of 9,80,654 whereas Bakarwals constitute the third-largest tribe, with a population of 1,13,198. The third-largest community in the Union territory is made up of the nomadic Gujjar and Bakarwal tribes.

Social and Economic Profile

Over 5,00,000 of the total population of Gujjars and Bakarwals rear sheep, buffalo, cows, goats, and horses for their survival. They migrate from one place to another with their herds on a seasonal basis. Ajjadh, Dohdhi Gujjars, Banhara Gujjars, and Van-Gujjars are some of the names given to the Gujjars. Those who raise goats and sheep are known as Bakarwals among the Gujjars. "Bakarwal" means "high-altitude goatherd/shepherd".

The Bakarwals alternate with the seasons between high and low altitudes in the Himalayan hills. They migrate biannually between the montane Himalayan pastures of Kashmir and Ladakh in the summer and the plains and Peer-Panjal ranges of Jammu in the winter. Bakarwal nomads set up and maintain watering holes and clear away dry/dead plant matter in the Jammu



hills during the winters as part of their ecological contribution to the region. The primary source of income for Gujjars and Bakarwals is livestock and livestock-related products in which the cyclical migration process ensures that their flock has access to pastures all year.

The seasonal movement has been witnessing change over time. The Bakarwals' pastoral economy is primarily based on the use of vast pastures. The availability of pastures is markedly seasonal in nature, while snow covers the mountains in the north, pastures are available in the south throughout the winter. However, by late April, the winter pastures have been depleted, while melting snow in the north has resulted in green and lush pastures. As a result, the availability of pastures during a specific time of year distinguishes both the winter and summer zones. This results in an oscillation between summer and winter zones; as summer approaches, the drying up of the pastures in the south signals the time to move the animals to higher or cooler altitudes in the north. Bakarwals travel through Pir Panjal's nine major mountain passes to reach their summer destinations. The main mountain passes are Nandangali and Pir ki Gali, which account for more than 70% of the Bakarwals' seasonal movement. By the end of April, they have mostly traversed these passes.

Vulnerability to Livelihood

According to the Economic Survey of J&K, 2020 more than 42% of the

population of Scheduled Tribes, of which the majority are Gujjars and Bakarwals, lived below the poverty line. It further highlighted that these communities are highly vulnerable to climate change. Climate change has forced them to cross one month ahead of schedule due to the unusually warm march. Since in march sheep and goats give birth, the sudden change in temperature has an impact on the newborn livestock in their winter pastures, which is a major source of income for the community. According to a survey, the Bakarwals have been forced to move early to summer pastures due to a new and pressing problem of water and fodder scarcity. Bakarwals are forced to graze in pastures that do not provide adequate grazing due to the rapid melting of snow. Temperatures in their summer pastures are too low due to the early arrival, which has impacted their livestock population. As a result of the comparatively higher temperatures in March and the lack of rainfall, they are forced to move earlier, affecting their production. The herds' mortality rate has increased in recent years. Increased temperatures in March and April have an impact on the animals because this is the breeding season. The following table presents the total number of livestock in J&K during the 20th livestock census 2019

Table 1: Total number of livestock in J&K during the 20th livestock census 2019

Climate change has drastically reduced the welfare of animals. The global



Table 1

State	Jammu & Kashmir
Cattle	2539240
Buffalo	690829
Sheep	3247503
Goat	1730218
Total Livestock	8325324

temperature has a negative impact on the production and reproduction of animals. In fact, heat stress reduces dry matter intake and causes oxidative stress in animals which leads to reduced production and fertility of animals. The increasing temperature during transportation has led to the increasing mortality rate of livestock. In general, an increase in temperature has led to both direct and indirect impacts on the livestock of Gujjars and Bakarwals. Direct effect on production and reproduction, increase in stress level by increasing cortisol, which depresses the ovarian hormone (FSH, LH) increasing consumption rate which decreases in kidding (newborn of a goat) and lambing (sheep) rate. The resultant effect is that this leads to a decrease in their livestock population. The indirect effect is on feed, and fodder which leads to a decrease in production. Climate change impacts horticulture and forestry. The goat is the top feeder (browser) and eats tree leaves only.

Due to an unusual rise in daily temperature in Jammu and Kashmir, the

Gujjar and Bakarwal tribes began their seasonal migration to the upper reaches of the Himalayas one month ahead of schedule in 2009. However, the season changed and they were trapped in the mountainous range of Himalaya, where unseasonal snowfall continued for two weeks, killing more than 50 people and killing lakhs of animals. The problem is further aggravated by the rising trend of urbanization in Jammu and Kashmir hampering their traditional migration routes. The government does not also provide veterinary support to the livestock of Gujjars and Bakarwals. Table 2 shows the state-wise number of veterinary institutions (as of 31/03/2019). Their economy is entirely based on livestock, which has been devastated by the region's droughts, unseasonal snowfall, and other climate-related issues. The issue of climate-related displacement in Kashmir poses serious threats to the Gujjar and Bakarwal societal sustainability.

Table 2: State-wise number of veterinary institutions (as of 31/03/2019)

The availability of water sources, as well as livestock production, are all affected by changes in rainfall. This has resulted in increased vulnerability in terms of food and water scarcity, with direct consequences for livestock, forcing the community to relocate early to summer pastures in the higher reaches of the Kashmir valley. Because residents of this area are already accustomed to extreme climate changes such as years without

**Table 2:**

S.No.	States / UT	Veterinary Hospitals / Polyclinics	Veterinary Dispensaries	Veterinary Aid Centre (Stockman Centres / Mobile Dispensaries)	Total
1	Andhra Pradesh	337	1576	1275	3188
2	Arunachal Pradesh	15	180	305	500
3	Assam	21	435	767	1223
4	Bihar	39	1098	1595	2732
5	Chhattisgarh	340	809	403	1552
6	Goa	5	25	49	79
7	Gujarat	34	702	1057	1793
8	Haryana	1029	1817	22	2868
9	Himachal Pradesh	444	1767	1251	3462
10	Jammu & Kashmir	20	503	1301	1824
11	Jharkhand	35	424	433	892
12	Karnataka	695	2135	1382	4212
13	Kerala	278	868	20	1166
14	Madhya Pradesh	1063	1583	65	2711
15	Maharashtra	201	1740	2906	4847
16	Manipur	56	109	34	199
17	Meghalaya	4	114	122	240
18	Mizoram	5	35	103	143
19	Nagaland	11	55	100	166
20	Odisha	541	3239	314	4094
21	Punjab	1389	1489	20	2898
22	Rajasthan	2530	198	5169	7897
23	Sikkim	18	61	54	133
24	Tamil Nadu	177	2701	831	3709
25	Telangana	108	909	1201	2218
26	Tripura	16	60	458	534
27	Uttarakhand	329	10	778	1117
28	Uttar Pradesh	2208	267	3396	5871
29	West Bengal	112	612	2657	3381
30	A&N Islands	10	13	13	36
31	Chandigarh	5	9	0	14
32	D&N Haveli	1	0	9	10
33	Daman & Diu	0	2	3	5
34	Delhi	50	26	0	76
35	Lakshadweep	3	9	1	13
36	Puducherry	0	17	74	91
Total		12129	25597	28168	65894

Source: Annual Report 2020-21, Department of Animal Husbandry and Dairying

rain, severe droughts in summer pastures and winter pastures, and unseasonal snowfall such as in 2009, it is likely that this year will be no exception.

A survey is being carried out in Jammu and Kashmir's Pirkimarg summer pasture. Many families have been surveyed to determine the total number of animals owned in the previous seven

years. Lentho, a transhumant of the same pasture land, had 154 cattle in 2006, and 162 in 2007, but only 55 in 2009, indicating that more than 70% of the cattle died due to untimely snowfall.

Due to unseasonal snowfall, they became trapped in the upper reaches of Pir Panchal, Doda, Anantnag, Kulgam, Zojiala pass Jamia Gali, Pir Ki Marg,



Chhapran, Upper Banihal, Wadwan, Trichhal, Mughal Road, Gurez, and Macheil sectors. Many respondents believe this is happening as a result of climate change. According to the Tribal Research and Cultural Foundation (TRCF), over three lakh to five lakh, nomadic Gujjars and Bakarwals were trapped in mountain ranges in 2009 while looking for pastures for their livestock during their seasonal migration, which began in April.

The availability and utilization of natural pastures is critical to the pastoral economy of Gujjars and Bakarwals. These pastures appear only at certain times of the year. As summer approaches, the lower reaches of the pastures dry up, while the upper reaches begin to thaw. As a result, a significant number of Gujjars and Bakarwals migrate from the lower Himalayan ranges to pastures in the upper Himalayan ranges. In their traditional meadows, 79 percent of respondents reported poor fodder quality and scarcity. They are dissatisfied with their pasture land, and as a result, the milk yield of the buffalo and the economy of the Gujjars and Bakarwals suffer, but they continue their transhumant adaptive activities in these areas. They rely on their buffalo herds and would like to relocate them to better pastures. However, resource depletion can be caused by overutilization. And we know that overuse is a direct result of rising human and animal populations. These pastures have been depleted as a result of overgrazing, and the cattle are unable to obtain sufficient quantities and quality grass to meet their needs. Furthermore, neither the forest department nor the graziers involved

take any care to plant good quality grasses, nor is any attention paid to make up losses due to overgrazing, such as receding, which should be a permanent and regular feature of pasture development programmes.

Almost all of them believe that they are not safe in the hands of natural disasters. They faced a number of natural problems such as rain, snowfall, heavy storms, hailstorms, and landslides, which resulted in the loss of not only their loved ones but also their livestock. The unprecedented snowfall that lashed the entire Kashmir valley and parts of Jammu in June 2009 took a heavy toll on life and property. According to reports, approximately 25,000 cattle were killed, in addition to the destruction of hundreds of houses, the majority of which were migratory population huts.

Conclusion

Urgent policy intervention is required to address the impending issues of livelihood of Gujjar and Bakarwals. Development of grazing land with the help of forest department and cooperative societies should be a priority. A multi-stakeholders approach should be applied to mitigate the adverse impacts of climate change. This could be done by synergizing and converging policy parameters. Gujjars and Bakarwals need to follow the weather advisory broadcast by the meteorological department to avoid major losses of livestock and human life. The government could also reach out to the community by training them on how to face and mitigate the effects of climate change.



Why Forest Rights act may be the panacea to all the problems facing the tribal people of J&K



Arka Chakraborty and
Taitreyi Biswas

The strategic and geopolitical conflict in Jammu and Kashmir tinted with the colours of religious and national identities figures very frequently in the mainstream national media as a result the average observers develop a tendency to forget the importance of other identities and politics centered on them. However, these identities affect the everyday realities of a

large chunk of the region's population, for whom the 'larger' conflict is a relatively distant issue. The tribal groups which form a sizable portion of J&K's population and a number of whom still follow a pastoralist and semi-nomadic lifestyle have long since faced discrimination and marginalization at the hands of successive governments that largely serves a sedentary population. While this incompatibility between the pastoralist and agro-pastoralist semi-nomadic communities and the sedentary state and the latter's efforts to control



the former creates a kind of conflict that is largely universal both spatially and temporally, sharp regional differences exist and the tribal groups in J&K have been provided far less opportunities to preserve their heritage and join the developmental mainstream. As the special status of the erstwhile state has been abolished and Acts aimed at the welfare of the groups listed as Scheduled Tribes (STs) like The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, have become applicable in the now Union Territory of J&K, tribal leaders and activists are hopeful that they will be able to join the other scheduled tribes of the country in availing the welfare schemes.

The scheduled tribes of Jammu and Kashmir

Jammu and Kashmir is the only Union Territory in northwest India with a considerable amount of scheduled tribe population. Out of a total 14.9 lakh schedule tribe, population 13.2 lakh are Muslims, 1 lakh are Buddhists and 67 thousand are Hindus. There were about 12 major scheduled tribes in the erstwhile Jammu and Kashmir state: Balti; Beda; Bot and Boto; Brokpa; Drokpa; Dard and Shin; Changpa; Garra; Mon; Pungpa; Gujjar; Bakerwal; Gaddi; and Sippi. Among them, the Gujjars and Bakerwals constitute the largest population groups. According to the official census of 2011, the tribes of J&K constitute about 11.9% of the erstwhile state's total population,

although this figure is currently under dispute. Traditionally, the hilly regions of J&K had given the tribes the opportunity to follow a nomadic or semi-nomadic, pastoralist lifestyle. While tribes like the Gujjars mostly rear cattle, others like the Bakerwals rear goat and sheep. The nomadic and semi-nomadic tribes follow seasonal migration routes. They spend their winters in the upper reaches of Pir Panjal (mostly in the Kashmir Division) and spend the winters in the plains of Jammu. Due to their pastoralist lifestyle, many of them have no lands or homes. However, there is a growing population of Gujjars who are settling down as sedentary agriculturalists.

A History of Discrimination

Historically, the problems regarding the tribal groups of Jammu and Kashmir in particular and India in general have arisen from access to and control of land as well as the question of the tribal population's access to education, employment, financial security, social justice and political decision-making process.

Land, Heritage, Coercion and Landlessness:

Under the Dogra rule (1845-1947), the tribal nomadic and semi-nomadic groups of Jammu and Kashmir were given access to pastures and patches of land for habitation and cultivation. These rights, however, were slowly eroded as time went on. Khalid Bhatti, a lawyer in Jammu, opines that the first evictions of



tribal groups started happening in J&K when areas like Gulmarg were converted into tourist spots. The real struggle for the tribes, however, began with the inception of armed insurgency in 1989. Traditionally, the nomadic and semi-nomadic tribes of J&K follow distinct migratory routes followed by their families for centuries without deviation. There are seven major seasonal migration routes, all of which lead to different passes in the Pir Panjal ranges. The summer migration begins in and around the first week of April and ends by the last week of June or the first week of July, during which various tribes divided in clans migrate with their livestock to the upper reaches of the Himalayan Mountain ranges (especially Pir Panjal) mostly in the Kashmir division. The winters, conversely, are spent in the lower reaches or the foothills mostly in the Jammu division. These seasonal migrations were greatly disrupted by the advent of militancy. A study conducted in 2014 shows how the nomads were "... sandwiched between the militants and the security forces and were hit from either side." The armed militants usually hid out from the security forces in the upper reaches of the Himalayan Mountain ranges, some of which were seasonal migration paths for the tribal groups. These groups were seen by the militants as the source of food supply, shelter, directions across the remote area and camouflaged transport for personnel, ammunition and equipments. The tribal groups, therefore, faced a double threat- they would often be coerced at gunpoint into assisting some of

the militant groups. If they did assist them, they would run the risk of being targeted by the security forces. Naturally, this double whammy has had very detrimental effects on the tribal groups' way of life. Firstly, a large number of families have abandoned their traditional migratory lifestyle and pastoralist livelihood for "fear of the gun."

Secondly, the groups which remained to follow the pastoral profession now face the challenge of an ever-shrinking caravan. The number of cattle, goats, sheep and other small ruminants that accompanied the groups earlier can't be maintained anymore. This is another element that is pushing many pastoralists out of their profession. Thirdly, the nomadic groups used forest resources for food and shelter. Since the 1980s, however, the Forest Department has closed off a number of forest areas as a part of their conservation efforts. The militancy resulted in yet more forest closures due to security reasons. The loss of pastures as a result is also leading to many people leaving the life of pastoralism. A study conducted in 2012 by the Tribal Research and Cultural Foundation (TRCF) found that 39% of the respondents have left their nomadic lifestyle. Javaid Rahi, the general secretary of the TRCF, states that the tribal families had to leave their traditional livelihood and seek out other options. "Due to lack of education, most of them had no choice but to join the ranks of unskilled labourers," Rahi told JKPI.

Lack of Political Representation:



Although the tribal population of J&K constitutes nearly 11.9% of its total population (according to the Census of 2011 which is disputed) their political presence in the erstwhile state's decision-making process is nowhere as visible. This, according to Gujjar activist Shamsher Hakla Poonchi, has been largely due to the apathy of successive state governments which largely obstructed the central government's more sympathetic tribal policies by using J&K's special status as a shield. The Nehruvian policy of developing the 'quality of human character' and the material conditions of the scheduled tribes by empowering their own people to lead them at their own pace while preventing them from being 'over administered' by the state has been largely followed by the subsequent central governments which has resulted in significant upliftment of tribal groups and communities across the country. This gradual development has largely not taken place in J&K. Eight tribes of the former state i.e. Balti; Beda; Bot and Boto; Brokpa; Drokpa; Dard and Shin; Changpa; Garra; Mon; and Pungpa were granted scheduled tribe (ST) status as late as 1989 while the Gujjar; Bakerwal; Gaddi; and Sippi were granted the same even later (1991). Although this was seen as a big step towards the attainment of socio-economic equality and political presence, it quickly became apparent that the political elite in J&K state at the time were reluctant to give them the political representation in state assemblies proportional to their population (an idea

that the Indian Constitution supports) that they rightfully deserved. In fact, the State Constitution of J&K allowed seat reservation at the Legislative Assembly for Scheduled Castes, but denied the same to the scheduled tribes. When Javed Rana, a tribal National Conference MLA, raised this issue in an assembly session, he was quickly silenced by the top leadership of his own party. The state government had only reluctantly granted the tribal population reservation at the panchayat level as per their proportion in the State population which is viewed by some tribal leaders including Gujjar United Front leader Shah Mohammad as a 'tactical move' on the part of the politico-economic elite to keep the tribal people subjugated.

Economic Vulnerability:

A number of factors are leading to the nomadic and semi-nomadic tribal groups of J&K losing their migratory routes and pastures. This has resulted in a large number of them giving up on pastoralist lifestyle. While some have settled down as agriculturalists, others have become landless labourers. This has had a tremendously detrimental effect on their livelihood. Zakat Ali, a tribal community member of Budhal in Rajouri district, states that while he used to earn more than Rs. 5000 selling wool from his goats in the summer which was sufficient for his family's survival in the winter, now that he has lost his flock of 20 sheep, he does not have enough money to cure his son's stomach ailment. Dr. Javaid Rahi



informed JKPI that as the price of fodder is higher in J&K markets than the price of milk, the cattle-rearing communities constitute a low economic group. Same can be said for the shepherds as the demand of mutton imported from areas like Rajasthan and Delhi are in greater demand than indigenously produced mutton. The farmers, according to Dr. Rahi, are not better off either as they mostly produce rops for consuming themselves. The percentage of tribal people employed in the service sector is also extremely low. All this culminates in the overall low economic condition of J&K's tribes. As the erstwhile pastoralists are fast losing their economic self-sufficiency, a lot of them could use the assistance provided by the welfare schemes offered by the government. However, there are a number of faults in their implementation on the ground which results in the promised assistance never reaching those who actually need it. Central assistance of Rs. 4757.66 crores was granted for the period of 1997-2003 to Jammu and Kashmir for a tribal sub-plan. However, the government-appointed advisory board comprising Gujjars and Bakerwals which was the designated authority to allocate the funds was paid little heed to during the process by the bureaucrats who had little idea of the ground realities. This resulted in a number of massive economic blunders, like the mammoth loss of 30000 animals in an unexpected snowfall in the last week of April, 2004, in the higher reaches of Pir Panjal due to the government's laxity

in building protective sheds in those areas which could have minimized the damage in spite of the repeated requests to do so by the advisory board.

Educational Backwardness:

A nomadic or semi-nomadic lifestyle is incompatible with an essentially sedentary structure of the modern education system in India which results in a large chunk of the tribal population in J&K never receiving formal education. Even those who have adopted sedentary life, however, do not fare much better. Firstly, there is a lack of teachers who use Gojri as a medium of communication. This results in a language barrier between the teachers and the young students and presents an impediment to their mental growth. Secondly, there is a lack of teachers for tribal students. S. M. Chowdhary, Central Govt.'s Standing Counsel and a Senior Advocate in the J&K High Court who has actively championed for the rights of Gujjars and Bakerwals, states, "Gujjars are provided one teacher per 60 students. One teacher to teach maths, science, and every class. How can the kids learn, and compete?" Thirdly and perhaps most importantly, there is a distinct lack of schools devoted to the education of children from tribal communities. Dr. Javaid Rahi told JKPI that there are currently about 25 hostels for men and women where around 2800 students from tribal communities are being educated. This is a minuscule number when compared with the total population of tribal people in J&K,



which is around 15 lakhs. He also adds that there is a noticeable lack of Ekalavya Model Residential Schools (centrally-funded residential schools devoted solely for the education of children from tribal communities) in Jammu and Kashmir.

It is important to know that as of February 2019, only two EMRSs have been established in the erstwhile state (funds have been released for three).

Under-representation of Language:

Tribal languages and elements of tribal culture are woefully under-represented in Jammu and Kashmir. Gojri, according to Haji Mohammad Yousuf, President of the J&K Gujjar Bakerwal Conference, is the third most spoken language in the region as well as one of the oldest languages still spoken. However, the recent Jammu and Kashmir Official Languages Bill, 2020, only included Kashmiri, Dogri and Hindi as the UT's official languages along with the already-existing English and Urdu, ignoring Gojri. Rabiya Shafiq, a Gujjar activist from Rajouri, sees this as another manifestation of discrimination against her people. She, along with other activists, demand the inclusion of Gojri as an official language.

Dispute regarding Population:

According to the Census of 2011, tribal communities constitute 11.9% of J&K's population, which itself is larger than the national average. However, a number of activists and organizations including the TRCF claim that there were faults

in counting the tribal population and the actual percentage of tribal people ranged from 15% to 20% of the total population of the erstwhile state. In conversation with JKPI, Dr. Javaid Rahi has pointed out a number of methodological inconsistencies in the counting process of the 2011 census. Firstly, he states, the census was conducted during the seasonal migration of the tribal communities which resulted in a large chunk of their population being left out of the process. Secondly, the process of counting houses as the basis of population is inherently flawed in the case of tribal communities, as many of them are nomadic in nature and do not own any land or houses. Thirdly, there are many local inconsistencies when compared with the previous Census (2001), revealing the possibility of political sabotage.

Needless to say, that in a state where population often translates to political visibility and representation, the under-representation of the tribal groups' population in J&K is sure to have seriously detrimental consequences for their plight.

Eviction Drives

The nomadic and semi-nomadic tribal groups of J&K return to the plains of Jammu with their livestock during the winter. However, due to their landlessness, they have no choice but to settle in the areas near the forests close to water sources. This is where tensions originate between the inhabitants of the plains and the nomadic groups. Throughout most of Indian history, tribal groups (especially nomads) were not given any kind of land



rights and were legally seen as ‘encroachers.’ This meant that the government and its representatives had the right to forcibly remove these groups from their habitations without any promise of rehabilitation. This changed for most of India in 2006 with the introduction of the Forest Rights Act which ensured these groups land rights, protection from eviction and the right to procure, use and dispose of minor forest produce, among others. This historic act, however, was not extended to Jammu and Kashmir due to the erstwhile state’s special constitutional status. The nomadic and semi-nomadic landless tribal groups of J&K, therefore, remained to be ‘encroachers.’ Meanwhile, as militancy drove many tribal families to abandon their traditional ways and settle down permanently in the plains, the conflict regarding the right to inhabit and use land continued to grow between the landed citizens of the plain and ‘landless encroachers.’

Forest Rights Act, 2006

In a country where landless scheduled tribes were essentially not given any security against forcible eviction, the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, also known as the Forest Rights Act (FRA), was a historic and revolutionary step towards equal opportunity, economic welfare and social justice. According to this law, scheduled tribes are ensured access to and ownership of forest lands for livelihood, habitation and self-cultivation, are allowed to procure, use and dispose of forest resources (except timber) and are ensured

rights to seasonal produce. The FRA is the first law in India that recognizes the role of the traditional wisdom of these groups for the conservation of forest areas. It enjoins upon the Gram Sabha and the rights holders the responsibility of the conservation of biodiversity, wildlife, forests, adjoining catchment areas, water sources and other ecologically sensitive areas. The Act also allows the Gram Sabhas to divert land up to one hectare for the development of basic infrastructure in their localities like schools, hospitals and water reservoirs.

The FRA has the potential to radically change the condition of the landless tribes for the better. It grants the beneficiary protection against eviction, which is the need of the hour for the tribes in J&K. Dr. Javaid Rahi opines that the act, if implemented, “... will empower the village committees to govern community forest resources and will democratize forest governance by securing rights of tribes of Jammu and Kashmir.” This granting of actual power, while not being able to instantly eliminate the varied discriminations that take place against the tribal population, will certainly be the first bold step towards the tribes’ battle for equal dignity and self-preservation (in both economic and cultural terms). It also has the potential to finally begin building some measure of trust between the UT government and the tribal people, the latter of whom have been alienated for decades. Empowering the tribes will also mean that they will be able to help the government with their traditional knowledge of the forest to ensure the conservation of forest resources.



These dreams, however, are yet to come to pass. Even after the law was deemed ‘applicable’ in the UT following the abolition of Jammu and Kashmir’s ‘special status’ (31st October, 2019) the government had taken a long time to decide to implement the same on the ground. This has changed with a recent meeting chaired by B. V. R. Subrahmanyam where deadlines have been set regarding the on-ground implementation of the law. Plans have been made to complete the “survey of claimants” by the forest rights panels for assessing the nature and extent of rights claimed at the village level by January 13, 2021. Then the sub-divisional committees are to complete the scrutiny procedure of claims and the preparation of “record of forest rights” by January 31, 2021. Finally, committees at the district level are set to consider and approve this by March 1, 2021.

Recommendations

A number of measures should be taken to alleviate the living condition of J&K’s scheduled tribes:

Implement the Forest Rights Act and other central laws made for the benefit of the scheduled tribes as soon as possible.

A special census should be conducted keeping the specificities of the tribal communities in mind in order to ascertain their true population strength in the Union Territory.

The government must find ways to

popularize indigenously produced wool, meat and milk and implement schemes to help to bring down the production cost of the same. This will pave the way for the economic prosperity of J&K’s tribes.

The Gojri language should be given the respect and the visibility it deserves.

A number of measures should be taken to improve the educational conditions of tribal children. Gojri should be made an official medium of exchange at the primary level at least in schools where the Gujjar-Bakerwal children form a significant section of the student body. For this purpose, native Gojri speakers should be trained as teachers and employed in large numbers. Establishing the Ekalavya Model Residential Schools should be the UT government’s top priority.

Elements from Gujjar and other tribal cultures should be introduced in the mainstream curriculum of the JK UT to make the next generation of citizens living in J&K acquaint themselves with and appreciate the heritage of these tribes. This will go a long way in remodeling the derogatory public perception of these tribes.

Dr. Javaid Rahi kindly advises that funds for the improvement of the condition of tribal people should be allocated in a manner where the village or the administrative unit that has a greater population of the tribal people (in percentage) will have the priority. In



getting those funds.

Measures should be taken for the improvement of the condition of the tribal people during their seasonal migration. Rabiya Shafiq, for example, calls for solar-powered lighting systems and full-time veterinary doctors in every Gujjar-dominated place.

Most importantly, the political empowerment of the tribal communities is long overdue. Only when they are in positions of power can tribal people have any control over making their voices heard and forging their own destinies.

Conclusion

Whether the FRA is implemented properly within the projected months remains to be seen. However, the implementation of this

act will be only one milestone among many yet to be reached in the journey of J&K's tribes to find dignity and equality among their fellow brethren. Bridges based on concrete actions have to be built between the government and the tribes in order for real trust to emerge. The political elite has to realize the potential of human merit, spirit and boundless energy within the tribes and treat them not as vote-banks, but as allies and friends in the construction of a Jammu and Kashmir steadily moving towards development but conscious of its multiplicity of heritage and identity. Otherwise, the silent migrations will continue and a day may come when the unique culture of J&K's tribes is lost forever.



Bakarwal migration's impact on Dachigam National Park: Balancing tradition and conservation



Parvaiz Yousuf

The Kashmir Himalayas harbor a distinctive and rich ecosystem teeming with diverse flora and fauna. Renowned for its national parks, wildlife sanctuaries, and vibrant wildlife, the region, unfortunately, faces mounting

anthropogenic pressure. A notable instance of this strain lies in the annual nomadic Bakarwal migration – a seasonal journey undertaken by the Bakarwal community, pastoral nomads who rely on livestock for their livelihood. This age-old migratory tradition has unfolded across centuries, leaving an indelible imprint on the ecological tapestry of the



area.

Yet, the present era has brought to the fore a growing apprehension regarding the repercussions of this migration on the region's national parks. In this discourse, we aim to delve into the essence of this migration, unravel its intricacies, and subsequently shed light on its ramifications for the delicate balance of our national parks' ecosystems and the wildlife they harbor.

Understanding Bakarwal migration

The Bakarwals, a pastoral community, inhabit the mountainous terrain of Jammu and Kashmir, orchestrating a fascinating annual migration. This tradition involves guiding their herds of sheep and goats from the lowlands of J&K to the elevated reaches of the Kashmir Himalayas as the summer ushers in. As the snow-capped Himalayan peaks yield to the warmth and the grasslands at lower elevations turn arid, these resourceful animals journey to higher ground in pursuit of nourishing forage.

Embedded within the cultural fabric, the Bakarwals' migratory path is steeped in history and familial legacy. Setting forth from the plains during the months of April or May, they embark on a traverse that concludes by late September or early October. Along this journey, they traverse through landscapes of breathtaking beauty, encompassing environmentally vital regions, including national parks and protected areas.

Of particular note is the significant intersection of their migratory route with Dachigam National Park (DNP), nestled in the Zabarwan Range of the Himalayas. Encompassing an expanse of approximately 141 square kilometers, this sanctuary boasts a rich tapestry of plant and animal life, further adorned by the presence of the critically endangered Kashmir Stag, or Hangul.

DNP's fortunate geographic placement aligns it with the Bakarwals' passage, yet this harmony is not without ecological consequences. The Bakarwals' livestock graze upon the park's pastures, triggering a process of vegetation depletion. The repercussions are profound and far-reaching, initiating a cascade effect that reverberates throughout the park's intricate ecosystem.

Impact of grazing

Regarding the Bakarwals' migration practices, a nuanced balance emerges between their livestock grazing and the preservation of the region's ecology. While these nomadic shepherds are permitted to graze their herds within the Kashmiri mountains, specific regulations, upheld by the law and the Jammu and Kashmir wildlife authorities, prohibit their entry into Dachigam National Park (DNP). The park, singular in its role as a bastion for the Hangul, or Kashmir Stag, embodies an indispensable haven for the feeding, breeding, and overall survival of this critically endangered species.



With a mere 250 Hanguls remaining in the wild, DNP's significance cannot be overstated, particularly in a landscape where other mountainous regions have undergone substantial disturbance, rendering their suitability for Hangul's existence increasingly precarious. The Bakarwals' livestock grazing, though rooted in tradition, exerts a considerable influence on the regional ecology. The continuous foraging of their flocks precipitates the depletion of vegetation, a phenomenon that resonates throughout the ecosystem's intricate food chain.

Anchoring this issue is the stark reality of thousands of sheep infiltrating DNP's core, effectively sweeping vast expanses of critical vegetation. This greenery is of pivotal import to Hangul and its progeny, which rely on a nutrient-rich diet, particularly during the demanding summer months. Altered vegetation dynamics consequently reverberate across the park's fauna, jeopardizing the sustenance of various wildlife species that rely on the now-depleted resources.

Compounding this ecological challenge is the substantial presence of livestock within DNP. This coexistence is markedly unharmonious for the Hangul, a timid and sensitive creature that instinctively shies away from disturbances, including human activity and the commotion associated with large herds of sheep, goats, humans, and dogs.

The Bakarwals' presence additionally ushers in direct interventions within

the park's ecosystem. Their practice of felling small trees using tools like axes, often driven by the need for warmth and protection from predators, serves to disrupt the natural equilibrium of the area. Tragically, fires kindled for self-preservation occasionally spiral out of control, engendering widespread destruction.

The repercussions of Bakarwals' grazing extend beyond the immediate and are manifest in the form of soil erosion, a consequence of the persistent trampling by their livestock. This gradual soil degradation leads to its loosening, making it increasingly susceptible to being washed away during rainfall. The ensuing erosion profoundly impacts the ecosystem's long-term vitality, compromising soil fertility and obstructing the growth of vital vegetation.

In essence, the intricate interplay between the Bakarwals' age-old practices and the delicate ecological balance of Dachigam National Park underscores the imperative for well-considered interventions and sustainable coexistence strategies.

Balancing Bakarwal migration and ecosystem conservation in national parks

Recognizing the historical and integral role of Bakarwals in our society and their longstanding migratory tradition, it is imperative to address the impact of their seasonal movements on our national



parks. A harmonious equilibrium must be achieved between the Bakarwals' way of life and the imperative of ecosystem conservation.

One viable approach involves the regulation of Bakarwal grazing within Dachigam National Park (DNP). Although the convenience of traversing the core of DNP aids their journey to northern Kashmir, stringent measures should prohibit their entry, while alternate routes circumvent the park. This aligns with the fundamental principle that no individual, including Bakarwals, should access the core of a National Park, save for scientific or research purposes. In this endeavor, the J&K wildlife department, along with organizations like the Wildlife Conservation Fund (WCF), has taken strides to curb Bakarwal entry using anti-grazing units at key transit points such as Bathen, Sangri, Zawoora, Astanpora, Brein, and Nishat. Although progress has been made, the scale of Bakarwals' movements necessitates a heightened and sustained effort to effectively safeguard the park from their intrusion.

Compounding the challenge is the diminishing expanse available for livestock grazing within the Kashmir Valley. To alleviate pressure on national parks, an innovative solution lies in the establishment of alternative grazing grounds outside these conservation areas. Collaboratively devised with the Bakarwals, these designated grazing zones would permit the continuation

of their traditional practices while ensuring that the delicate regional ecology remains unharmed. This entails a significant responsibility on the part of the government to comprehensively address this issue, restrict Bakarwal access to core park areas, and ensure the availability of suitable alternative grazing areas.

A pivotal strategy revolves around educating and training the Bakarwals in sustainable grazing practices. This transformative approach would underscore the vital significance of preserving the ecological equilibrium of the region. Equipped with a profound understanding of the long-term consequences of unsustainable grazing, the Bakarwals can transition into guardians of the ecosystem, actively contributing to its preservation. Central to this education is the unequivocal prohibition of entering national parks, refraining from tree felling, and preventing uncontrolled fires. Regular interactions and guidance would cement the commitment of the Bakarwals to sustainable conservation practices, fortifying the delicate balance between tradition and environmental protection.

Recommendations

Beyond the aforementioned measures, several additional recommendations can be put forth to effectively address the challenges posed by the annual Bakarwal



migration to our national parks.

Firstly, fostering an open and constructive dialogue between the Bakarwals and the pertinent authorities responsible for national park management emerges as a pivotal step. This dialogue must center on devising solutions that harmonize the Bakarwals' needs with the imperative of ecosystem preservation. By facilitating this discourse, the Bakarwals can be vested as active participants in the decision-making process, thus emerging as key stakeholders in the broader conservation efforts aimed at safeguarding the region's ecological balance.

A second vital recommendation involves the establishment of a comprehensive monitoring and evaluation framework, developed collaboratively with the Bakarwals. This framework would holistically gauge the impact of Bakarwals' seasonal migration on various aspects such as vegetation, soil quality, and wildlife dynamics within the national parks. The insights derived from this system should play a pivotal role in informing and refining park management strategies, ensuring that the measures implemented are precisely tailored to address the specific challenges posed by Bakarwals' movements.

Furthermore, acknowledging the collateral issue of traffic disruption due to Bakarwal migration assumes significance. The ensuing traffic congestions significantly impede the

daily activities of local residents. To alleviate this concern, the government should meticulously devise a time-bound schedule for Bakarwals and their livestock to access roads during their migration. By restricting their movements to nighttime, a prudent traffic management approach can be realized, minimizing interruptions and ensuring a smoother transition for both the Bakarwals and the local populace.

In summary, these recommended steps, encompassing the facilitation of dialogue, the establishment of a comprehensive monitoring system, and the implementation of a judicious traffic management plan, collectively offer a holistic strategy to effectively mitigate the multifaceted impact of Bakarwal seasonal migration on our cherished national parks. By combining these efforts, a harmonious coexistence between the Bakarwals and the ecological integrity of the parks can be realized.

Conclusion

In summation, the Bakarwals play an integral role in the development and economy of Kashmir, sparing the need for substantial livestock imports. Their distinct identity is rooted in a centuries-old cultural practice of annual migrations through the Kashmir Himalayas. However, the coexistence of this tradition and the preservation of our national



parks, housing crucial ecosystems, poses a complex challenge.

Achieving a delicate equilibrium is imperative; a balance between the Bakarwals' requirements and the integrity of the park's environment must be struck to mitigate their impact on these precious natural reserves. This necessitates a concerted effort encompassing measures like regulating Bakarwal presence and grazing within national parks, establishing alternative

grazing zones, and fostering awareness about sustainable grazing practices.

By undertaking these proactive steps, the intrinsic harmony within our national parks can be preserved, safeguarding the rich tapestry of life they house. In this symbiotic approach, the continuation of Bakarwals' seasonal migration can coalesce with the imperative of ecological conservation, ensuring a sustainable future for both these unique shepherds and the natural wonders they traverse.

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