



JK Policy Institute

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A Monthly Newsletter by Jammu & Kashmir Policy Institute (JKPI)

Inksight



Kashmiri Women Entrepreneurs raise Rs 75 lakhs funding from India Network at JKEDI Startup Event

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JKEDI's Startup Leadership Summit 2023 propels 5 J&K startups towards funding



- Empowers 2 for scale-up, enrolls 12 in Accelerator Program

SRINAGAR: The Startup Leadership Summit organized by the Jammu and Kashmir Entrepreneurship Development Institute (JKEDI) has brought forth opportunities for the region's startup ecosystem in the shape of the selection of 5 promising startups for funding, 2 startups for scale-up support and the enrollment of 12 startups into The India Network's Accelerator Program.

The two-day event which served as a platform for collaboration, knowledge sharing, and entrepreneurial growth was attended by visionary entrepreneurs, industry experts, and investors.

During the summit, the selected startups were recognized for their exceptional potential and disruptive ideas across various sectors.

Through a rigorous pitching process, these exceptional startups stood out by presenting their compelling business plans and forward-thinking vision. These startups have been handpicked based on their innovation, potential for growth, and commitment to making a significant impact in their respective industries.

The program will provide the selected startups with unparalleled support, guidance, and resources to fuel their entrepreneurial aspirations. By nurturing their ingenuity, offering mentorship from industry stalwarts, facilitating access to funding opportunities, and creating a vibrant ecosystem, the program aims to empower these startups to flourish and succeed in their ventures.

Director JKEDI, Ajaz Ahmad Bhat presided over the proceedings. He expressed deep admiration for the remarkable talent pool of startups and aspiring entrepreneurs who gathered at the Startup Leadership Summit, recognizing their exceptional potential and unwavering dedication to innovation and entrepreneurship.

"Their vision, passion, and commitment to making a difference in their industries are truly commendable. Through this platform, we aim to empower them with the necessary tools and knowledge to thrive and succeed as entrepreneurs. Under the visionary leadership of Hon'ble Lt. Governor, the J&K Government

has become a strong catalyst for the growth of startups and the empowerment of entrepreneurs. We are steadfast in our commitment to continually enhance this supportive ecosystem, fostering innovation and driving entrepreneurial success in J&K," he said.

The funding support extended to the 5 selected startups will provide them with the necessary financial backing to propel their growth and execute their business plans successfully. This injection of funds will enable them to scale their operations, expand their market reach, and foster innovation in their domains.

The 2 startups chosen for the scale-up program will receive personalized support and guidance to accelerate their growth trajectory. This program will offer them strategic mentorship, market access opportunities, and valuable resources to navigate the challenges of scaling their businesses effectively.

Moreover, the enrollment of 12 promising startups into the Accelerator Program opens doors to unparalleled support, mentorship, and access to a thriving entrepreneurial ecosystem. These startups will benefit from industry expertise, specialized training, and networking opportunities, enabling them to refine their business models and accelerate their path to success.

The selection process for funding, scale-up, and the Accelerator Program was highly competitive, emphasizing the quality, viability, and potential impact of the participating startups.

A total of 30 startups from across UT participated in the pitching process. The chosen ventures have exhibited exceptional promise and are poised to revolutionize their industries, create employment opportunities, and contribute to the overall socio-economic development of Jammu and Kashmir.

The event included sessions from Rahul Narvekar, the Founder and CEO of The India Network, Hemani Bhagat, the Chief Operating Officer of The India Network, Souniya Khurana, Founder and CEO of Wyn Studio, Dinesh Singh and Amit Mishra, Co-founders of Alpha Consultants.

The valedictory ceremony marked the culmination of the event, as certificates were distributed to participants, acknowledging their valuable contributions and achievements throughout the program.

Around 200 aspiring and existing entrepreneurs participated in the event which included participants from various universities, colleges, NIT, polytechnics, ITIs, and other educational institutions.

A successful pilgrimage amidst unity and praise

- Shri Amarnathji Yatra surpasses previous year's numbers



SRINAGAR: The revered Shri Amarnathji Yatra-2023 has achieved a momentous milestone, surpassing the total number of pilgrims from the previous year.

This year's Yatra has been distinguished by its seamless arrangements, unwavering services, and meticulous management, garnering widespread acclaim and nurturing a sense of harmony among people hailing from diverse backgrounds.

Today a total of 9,150 yatris have had the privilege of performing darshan at the sacred Holy Cave, contributing to the cumulative figure of 369,288. This surpasses last year's total of 365,721, signaling a significant increase in the number of devotees undertaking this holy pilgrimage.

The resounding success of Shri Amarnathji Yatra-2023 can be primarily attributed to the impeccable arrangements orchestrated by the administration. Every facet of the Yatra, from the provision of langar services to healthcare facilities, sanitation, transportation, and security measures, has been meticulously managed to ensure unparalleled convenience for the pilgrims. The seamless execution of these arrangements has led to a surge in the influx of devotees who are eager to embark on the spiritually enriching journey, and they have expressed their deep appreciation for the well-coordinated efforts.

Beyond the spiritual significance, the Yatra has also witnessed the arrival of distinguished personalities from various walks of life, renowned badminton player Saina Nehwal, and Bollywood actress Sara Ali Khan. This diverse gathering serves as a testament to the universal appeal of the Amarnath Yatra, attracting individuals from all corners of the globe, united in their reverence for this sacred pilgrimage.

The Shri Amarnathji Yatra-2023 has also witnessed a significant increase in the number of foreign pilgrims

visiting the holy shrine. The pilgrimage's allure extends beyond national boundaries, drawing people from all over the world to partake in this spiritually enriching experience.

The pilgrims have wholeheartedly lauded the administration's tireless efforts in ensuring a smooth and hassle-free journey. The efficient organization of the Yatra has provided them with a sense of comfort and security, fostering an environment of gratitude and admiration.

Additionally, the Yatra coincided with the commemoration of Kargil Diwas at all Yatra Base Camps, wherein the triumph of the Kargil War was honored. The event saw active participation from various security departments, including the Army, CRPF, Police, NDRF, SDRF, Civil Administration, and Yatris, further strengthening the bond between the armed forces and the civilian population. The Yatra served as an opportunity to pay tribute to the valiant soldiers who sacrificed their lives in the defense of the nation.

As the Shri Amarnathji Yatra-2023 continues to witness an ever-growing number of devotees and garners widespread praise for its well-organized arrangements, it stands as a shining example of communal harmony, unity, and devotion. This sacred journey transcends geographical boundaries, bringing people from all walks of life together in a shared spirit of oneness and reverence.

In conclusion, the Shri Amarnathji Yatra-2023 has not only surpassed the previous year's numbers but has also touched the hearts of countless devotees, leaving an indelible impression of unity, spirituality, and appreciation for the administration's meticulous efforts. The Yatra remains a cherished experience for all pilgrims and continues to inspire a sense of reverence and devotion in the hearts of those who undertake this sacred expedition.

139.04 acres of defence land at Tattoo ground to be developed for tourism, other related activities

Ministry of Defence signed MoU with Ministry of Home Affairs through Government of UT of J&K for transfer of Defence land



SRINAGAR: Ministry of Defence signed Memorandum of Understanding (MoU) with Ministry of Home Affairs through Government of UT of J&K for transfer of Defence land measuring 139.04 acres situated at Tattoo ground to Ministry of Home Affairs for the promotion of tourism and other developmental activities in the region.

Lieutenant Governor Manoj Sinha presided over the MoU signing ceremony at Raj Bhawan.

The Ministry of Defence was represented through the Local Military Authority of Tattoo Ground Garrison and Defence Estate Officer Kashmir Circle Srinagar. The land will be handed over by the Ministry of Defence within a period of 120 days.

The Lt Governor termed the MoU as a momentous occasion in developing major tourism space in J&K UT.

Hailing the Army for its cooperation, the Lt Governor said the administration and security forces are dedicated to the welfare of the people.

We will make honest and dedicated efforts to fulfil all the conditions of the MoU and develop tourism and other related activities in such a way that the tourists visiting Kashmir valley find Tattoo Ground as one of the most attractive destinations, he said.

The Lt Governor also discussed with the senior Army officers the 'Mera Mati Mera Desh' campaign to honour the martyrs and preparations for Independence Day events.

Lt General Rajiv Ghai, GOC 15 Corps; Dr Mandeep Kumar Bhandari, Principal Secretary to Lt Governor; Vijay Kumar, ADGP Kashmir; Vijay Bidhuri, Divisional Commissioner Kashmir; senior officers of the Army and UT Administration were present on the occasion.

KASHMIRI WOMEN ENTREPRENEURS RAISE RS 75 LAKHS FUNDING FROM INDIA NETWORK AT JKEDI STARTUP EVENT



SRINAGAR: Two talented women entrepreneurs, Nuzhat Qazi, and Insha Mir, have secured funding of Rs. 50 lakhs and Rs. 25 lakhs, respectively, through the Jammu and Kashmir Entrepreneurship Development Institute (JKEDI) and Startup India.

This milestone serves as a testament to the exceptional potential and entrepreneurial spirit of women in the region.

The “Women for Startups” workshop held under the overall leadership of Commissioner Secretary, Industries and Commerce, J&K on the 19th and 20th of June in collaboration with Startup India, DPIIT, Government of India witnessed a vibrant atmosphere, with a display of tremendous energy and passion from aspiring women entrepreneurs and startups.

Ajaz Ahmad Bhat, Director JKEDI, shared his heartfelt enthusiasm for the extraordinary accomplishments of Nuzhat Qazi and Insha Mir. “We take immense pride in their exceptional achievements, which not only highlight their unwavering dedication and innovative ideas but also serve as a tremendous source of inspiration for

aspiring entrepreneurs in Jammu and Kashmir,” he said.

He also acknowledged the significant impact their success will have on motivating and empowering future entrepreneurs within the region. “These achievements reinforce our belief in the untapped potential and talent that exists within J&K. JKEDI will continue to provide a conducive environment and resources to empower more aspiring entrepreneurs and drive economic growth in the UT,” he added.

Ashtha Grover, Head of Startup India also interacted with aspiring women entrepreneurs. “The Women for Startups workshops have so far been conducted across 16 states and 18 districts across the country. We are delighted to have received such a tremendous response from Jammu and Kashmir. On behalf of Startup India, I express our gratitude to the JKEDI team for their support in making the initiative a resounding success and wish the entrepreneurs the very best in their journey ahead. We are committed to cultivating an inclusive entrepreneurial ecosystem that empowers women,” she stated.

Rahul Narvekar, Founder and CEO of India Network conducted insightful technical sessions during the workshop, focusing on the art of pitching to investors."I am truly impressed by the remarkable energy and unwavering determination exhibited by these women entrepreneurs. Their passion to achieve their goals is inspiring, and I am more than willing to support them in every way I can. My support goes beyond the financial contribution I have pledged; it also includes providing mentorship to help them navigate their entrepreneurial journeys," he stated.

The funding secured by Nuzhat Qazi and Insha Mir will provide them with the necessary resources to scale their ventures and bring their innovative ideas to fruition. It not only validates their hard work and determination but also highlights the importance of fostering a supportive ecosystem that empowers women in entrepreneurship.

"It feels great to be a part of such an initiative which invites people from outside. Such events provide ample exposure and platform to the new and existing business houses. I got an opportunity to pitch and present our business model to the investors and secured an investment promise from Mr. Narvekar. I am hopeful that such events will happen again in the near future to boost the entrepreneurial and economic growth of our society," said Insha Mir.

Nuzhat Qazi also conveyed her immense satisfaction, highlighting the valuable lessons she gained from the event. She emphasized the significance of understanding various fundraising strategies, networking opportunities, and the essential steps involved in entrepreneurial

endeavors. She further emphasized the empowering nature of such events for women entrepreneurs and expressed her belief that they should be organized more frequently to foster courage and growth in aspiring female business leaders.

JKEDI remains committed to nurturing and fostering the entrepreneurial spirit in the region. By providing access to funding opportunities, mentorship, and a conducive environment for startups, JKEDI aims to unleash the untapped potential of aspiring entrepreneurs and drive economic growth in J&K.

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Transformed PDS in J&K ensuring transparency, preventing leakages in ration distribution

SRINAGAR: Over the last four years, Jammu and Kashmir has witnessed a remarkable transformation in its Public Distribution System (PDS). Through a series of innovative reforms and technology-driven initiatives, the government has successfully eliminated leakages, enhanced efficiency, and ensured the benefits of PDS reach the deserving beneficiaries.

The government's decision to seed Aadhaar cards with PDS beneficiary records has been a game-changer in ensuring transparency and preventing leakages. By linking beneficiaries' Aadhaar information to their ration cards, the system has become fool proof, eliminating the possibility of duplication and ensuring that only eligible individuals receive the benefits.

The successful implementation of the National Food Security Act (NFSA) has played a crucial role in reaching out to the most vulnerable sections of society. By achieving 100% Ration Card Level under the NFSA, the government has ensured that no eligible household is left out of the PDS net.

To streamline the distribution process and bring in more accountability, the administration converted 6,413 out of 6,735 Point-

of-Sale (PoS) machines to online status. Additionally, 322 PoS machines were put in offline mode, primarily to cater to areas with limited internet connectivity. This tech-driven approach has not only expedited the distribution process but also reduced the scope of malpractices and ensured real-time monitoring.

With over 93% of PDS transactions being conducted online, the beneficiaries now draw their ration through Aadhaar authentication. This has not only minimized human intervention but also empowered the beneficiaries with a convenient and hassle-free process. The authentication system has also made it easier to track the movement of food grains, thus ensuring efficient stock management.

By implementing the One Nation One Ration Card (ONRC), the government has facilitated seamless portability, enabling beneficiaries to avail of their entitled ration from any PDS outlet across the country. This has been of immense help to transient populations and has further strengthened the food security network.

The government's meticulous de-duplication exercise led to the deletion of one million ineligible beneficiaries from the PDS system. This exercise not only ensured that the benefits reached the truly deserving ones but also saved substantial resources and reduced the burden on the exchequer.

The combined impact of technology integration, Aadhaar authentication, and de-duplication has resulted in substantial financial savings. The streamlined PDS has saved over Rs 230 crores and efficiently distributed 1.6 Lakh MTs of food grains to the needy population.

By leveraging technology, embracing Aadhaar authentication, and implementing innovative schemes like ONRC, the administration has set an exemplary precedent for other states to follow. The elimination of leakages, improved efficiency, and significant cost savings are clear indicators of the successful implementation of these reforms. The reformed PDS system stands as a shining example of how good governance can positively impact the lives of the most vulnerable and marginalised sections of society.

Agriculture Deptt Kashmir to promote organic vegetable cultivation in Kashmir

- 115 organic clusters to be established this year: Director

SRINAGAR: The Director of Agriculture Kashmir Chowdhury Mohammed Iqbal today visited Narkara Budgam and took stock of the Agriculture scenario.

Speaking to the farmers, the Director said that the polyhouses provided to the farmers by the department have changed into success stories.

He said the scenario has changed and the results of different initiatives by the department are indeed encouraging and satisfactory.

He said more and more farmers in these areas are taking Vegetable Cultivation on a commercial basis and this trend is quite encouraging. He expressed satisfaction over the production of good quality and quantity of tomatoes in the area. The crop would fetch maximum returns to the concerned farmers, he added.

Chaudhry said that in the coming days as the projects under the holistic Agriculture development programme will be implemented especially in the vegetable sector, there will be a huge change.

He further reiterated that organic Vegetable cultivation shall be encouraged and 115 organic



vegetable clusters shall be established under the PKVY scheme and the department is expecting a revolution in the organic vegetable sector of the UT of Jammu and Kashmir.

The Director of Agriculture also visited the farms of some progressive farmers in the area and held interacted with them and took feedback from them regarding various interventions by the department.

J&K stands number one in Geo Tagging of Union Ministry's CDPs



SRINAGAR: Jammu and Kashmir stand number one in Geo Tagging of Cluster Development Projects (CDPs) in the country, implemented by the Union Ministry of Micro, Small and Medium Enterprises (MSME).

This achievement of Jammu and Kashmir will result in faster approval of projects, and timely release of funds from the central government, which will result in more rapid growth of MSMEs across J&K.

Union Ministry of Micro, Small and Medium Enterprises

(MSME) is implementing Cluster Development Projects in the country including J&K through which central government's grant up to 80% is applicable for common facility centre projects and 70% for development of Industrial Estates.

J&K has received 10 projects from the Ministry of MSME for the development of Industrial Estates and Common Facility Centers (CFCs). MSME-DFO Jammu, the field office of the Union Ministry of MSME, takes a lead role in implementing

various schemes including Cluster Development projects for the benefit of the MSME sector of the region.

The total project value of CFCs and IDs in J&K is Rs. 90.73 crore approximately. Recently, the Union Ministry called for Geo Tagging all the projects under MSE-CDP for all states including J&K. An app was also developed by Ministry, used for tracking the performance, including completion, percentage of completion of the projects sanctioned under MSE-CDP, which is monitored online based on the photographs taken through the Geo app.

In Jammu and Kashmir, two teams were appointed for Jammu and Kashmir divisions for completing this task. The teams worked with full spirit and completed the Geo Tagging of all the projects, completed and ongoing across J&K.

Jan Bhagidari Portal establishes accountable, transparent governance system in J&K

- Enables citizens to participate in monitoring progress



SRINAGAR: The Jan Bhagidari Portal of Jammu and Kashmir represents a significant milestone in empowering citizens and fostering transparency in the developmental process.

This exclusive online platform serves as a medium for citizens to oversight and overview all developmental works being executed in the region, ushering in a new era of meaningful transparency and accountability with citizen participation.

The primary objective of the Jan Bhagidari Portal is to enable citizens to actively participate in monitoring the progress of various ongoing developmental projects and initiatives. Unlike traditional approaches, this portal does not require any username or password, ensuring that the information is accessible to all without any barriers. This democratization of information empowers citizens to be informed as engaged stakeholders in the development of their region.

One of the notable features of the Jan Bhagidari Portal is its comprehensive coverage of all Capital Expenditure (CAPEX) works being undertaken across Jammu and Kashmir. With this portal, not only major projects but also grassroots-level developments are brought under the public's scrutiny, leaving no room for unchecked utilization of resources.

The portal also introduces a unique scheme called "Janta ki Bhagidari" (People's Participation) which encourages active involvement of the public in the decision-making process. By promoting collaboration

between government and citizens, this initiative fosters a sense of ownership and responsibility among people toward their community's development.

By making all the information available on the portal accessible to every citizen, the government has demonstrated a commitment to transparency in public service delivery. This open approach has led to a significant improvement in public trust and confidence in the administration, as citizens can now verify the progress and effectiveness of various projects firsthand.

With the Jan Bhagidari Portal, the government of Jammu and Kashmir has set an exemplary standard for other regions to follow. It showcases the power of technology and people-centric governance in bringing about positive change and inclusive development. By empowering citizens with information, enabling public oversight, and encouraging collaboration, the portal has proven to be an effective tool for fostering a more accountable and transparent governance system.

In conclusion, the Jan Bhagidari Portal for Jammu and Kashmir stands as a shining example of how technology and citizen participation can be harnessed to build a more accountable and transparent governance framework. It embodies the spirit of "Janta ki Bhagidari" and serves as a model for fostering greater trust and partnership between the government and its people. As this initiative continues to evolve and grow, it holds the potential to transform the developmental landscape of Jammu and Kashmir for the better.

Serving last person of J&K cornerstone of govt's developmental approach

SRINAGAR: In the past four years, Jammu and Kashmir has witnessed a remarkable transformation with the surge in initiation of developmental projects, most of which have been completed by the government.

From the valleys of Kashmir to plains of Jammu, the government's unwavering commitment to serving the last person in the queue has become the cornerstone of their developmental approach.

The staggering figures speak volumes about the government's dedication to uplifting the lives of the people in the region. Over the last four years, the government has successfully completed an impressive number of developmental projects, creating infrastructure and opportunities for citizens.

In 2019-20, 12,637 projects were completed followed by 21,943 projects in 2020-21. The momentum grew exponentially in 2021-22, with 50,726 projects completed, and in 2022-23, an astonishing 92,560 projects are being accomplished.

What sets the Jammu and Kashmir government's approach apart is its unwavering commitment to inclusivity. The LG-led administration has pledged to ensure that the benefits of development reach even the most remote and marginalized communities. The administration has been actively working to uplift marginalized communities by providing them access to education, healthcare, and livelihood opportunities.

The government has placed significant emphasis on rural development, acknowledging the importance of strong rural infrastructure for overall progress. Projects like road connectivity, clean water supply, and electrification have been prioritized, significantly improving the quality of life in rural areas.

The completion of thousands of developmental projects has not only improved living conditions but



has also provided a much-needed boost to the local economy. Job creation has been a key focus, with a large number of employment opportunities generated across various sectors. This has had a cascading effect on the region, empowering the population and reducing unemployment.

Improved infrastructure has been a critical aspect of the government's developmental approach. By investing in infrastructure projects, like roads, bridges, and transportation networks, the government has fostered better connectivity between regions. This has facilitated the smooth movement of goods and services, further enhancing economic growth.

The record number of developmental projects completed by the Jammu and Kashmir government over the last four years is a testament to its commitment to serve the last person in the queue. Through its inclusive approach, the government has endeavored to bridge gaps, uplift marginalized communities, and spur economic growth. As J&K forges ahead on its journey of development, it holds the promise of a brighter and more prosperous future for every citizen in J&K.

**1.08 km long,
2-lane Ramban
Viaduct
completed**

SRINAGAR: 1.08 km long, 2-lane Ramban Viaduct has been completed. The viaduct built at a cost of Rs 140 Crore on the Udhampur-Ramban section of NH-44 will ensure the smoother movement of vehicles and relieve the congestion in Ramban Bazar.

The construction of this 26-span viaduct incorporates various structural arrangements utilizing concrete and steel girders. It will also facilitate the seamless passage of vehicles and pilgrims traffic during

Shri Amarnath Ji Yatra on the Jammu-Srinagar National Highway 44.

Additionally, another 2-Lane viaduct, running parallel to this structure, is nearing completion and will be opened soon.

Lieutenant Governor Manoj Sinha expressed his gratitude to Prime Minister Narendra Modi and Union Minister for Road Transport & Highways, Nitin Gadkari for the unprecedented development of highways and road infrastructure in the UT of Jammu Kashmir.

In a tweet, the Lt Governor said, "Grateful to Hon'ble PM Shri @narendramodi Ji and Hon'ble Minister for Road Transport & Highways, Shri @nitin_gadkari Ji for highways & infrastructure development of unprecedented magnitude in J&K and completion of projects at an extraordinary speed."

"Under the leadership of Hon'ble PM Shri @narendramodi Ji, Jammu Kashmir is regaining its greatness. The Union Territory is stronger than ever and has made impressive strides to socio-economic development," he tweeted.

Innovative Startups take center stage at JKEDI's empowering idea-pitching session for Startups of J&K



PULWAMA: The Jammu and Kashmir Entrepreneurship Development Institute (JKEDI) today organized an idea-pitching session, underscoring the vibrant entrepreneurial ecosystem in the region.

The event, held in collaboration with various stakeholders, provided an invaluable platform for startups from J&K to present their innovative ideas and seek support from experienced professionals in the industry.

This program was organized under the overall leadership of Commissioner Secretary, Industries and Commerce, J&K and is part of a series of events organized by JKEDI regularly across the length and breadth of the UT.

Ajaz Ahmad Bhat, Director of JKEDI, expressed his enthusiasm for the event, stating, "The pitching session at JKEDI was an exceptional opportunity for startups from J&K to showcase their innovative ideas. We are committed to supporting these budding entrepreneurs by providing them the necessary resources, mentorship, and networking opportunities to thrive in the competitive business environment."

The event brought together a diverse group of aspiring entrepreneurs, investors including a leading Kashmiri businessman, Rafiq Khan, and mentors who shared a common goal: to explore and nurture the growing startup ecosystem in J&K.

The event attracted a broad spectrum of startups across different sectors, including technology, e-commerce, educational services, and social impact initiatives. A few among them include Aspire Educational Service Private Limited, Sky Robo Drones Private Limited, NEKOD Software Solutions Private Limited, United Floritech, Walnut Willie, Kashmir Kraft, and many other innovative startups.

This unique event embraced both physical and virtual participation, reflecting the dynamic nature of the evolving startup landscape. Startups from various parts of Jammu and Kashmir were able to connect and present their ideas remotely, further amplifying the inclusivity and reach of the event. The event saw the participation of more than 100 aspiring and established entrepreneurs.

The pitching session served as a platform for



THE EVENT BROUGHT TOGETHER A DIVERSE GROUP OF ASPIRING ENTREPRENEURS, INVESTORS INCLUDING a leading Kashmiri businessman, Rafiq Khan, and mentors who shared a common goal: to explore and nurture the growing startup ecosystem in J&K.

entrepreneurs to present their compelling business models, demonstrating their potential to address key challenges and contribute to the socio-economic growth of the UT. The participating startups showcased their passion, ingenuity, and resilience, impressing investors and mentors with their vision for positive change.

Investors and mentors actively engaged with the entrepreneurs, offering valuable insights, guidance, and constructive feedback. The interactive sessions fostered meaningful discussions and forged connections that can potentially pave the way for future collaborations and investments.

"We were impressed by the depth of talent and the innovative solutions presented. These startups have the potential to become drivers of economic progress in Jammu and Kashmir. Our criteria is to support the Agri based businesses and any environment-friendly and sustainable startup which can drive the economy of J&K," said one of the investors.

By forging partnerships with government agencies, private investors, and industry experts, JKEDI aims to provide comprehensive support and resources to promising startups. The focus is on creating opportunities, fostering entrepreneurship, and supporting sustainable initiatives from the UT of J&K.

Eco-parks turn into major tourist attractions in Kupwara

KUPWARA: Eco-tourism parks developed by the Forest department in Kamraj forest division of Kupwara district are witnessing a huge visitor influx these days owing to the forest department's successful initiatives to develop Eco-tourism infrastructure and provide livelihood opportunities to several rural households.

Nagriwari Eco Park at Hatmulla, Kairwan Eco-Park at Dever, and Satbaran Eco-Park at Lastiyal Kalaroose have become sure stops, the most preferred Eco-tourism and biodiversity-tourism attractions in the Kupwara district.

People are seen spending quality time with their family and friends in these Eco-Parks developed under Schemes like Green India Mission and CAMPA.

As summer tourism in the Kupwara district has picked up, these prominent Eco-parks are witnessing a remarkable surge in tourism activities with thousands of local visitors, families, and students of different educational institutions and environment enthusiasts thronging these parks daily. Apart from becoming main tourism attractions, these parks have become sources of generation of livelihood for several families living in the close vicinity of these parks.

With a slight increase in temperatures in Kupwara and other parts of North Kashmir these days, the rush of visitors has grown manifold as visitors in large numbers are seen enjoying varied flora, fauna, and cool temperature of these parks located in the foothills of lush green and thick forests.

The officials of the department estimate that per month on average around 50,000 local visitors pay a visit to these Eco-parks.

More than 110 rural families living in the peripheral areas of these Ecotourism parks are earning their livelihood with the help of these parks.

NAGRIWARI Eco-Park, spread over an area of 7 hectares this park is located in the foothills of lush green forests of Compartment 82/M, This forest park is around 5 kilometers away from district headquarters Kupwara and has been beautifully landscaped with conifer trees, medicinal and ornamental plants, and native shrubs.

This Park has a natural forest setting, an open classroom facility for students, and informative educational signage installed for engaging students and educating them about the importance of forests.

Nagriwari-Eco-Park is an ideal location for visitors to enjoy the cool breeze, ideal ambiance, captivating views, and the serenity of nature. Park offers a peaceful retreat for nature lovers and adventure enthusiasts with infrastructure for adventurous activities. Besides, it provides immense opportunities for Nature Walks, Bird Watching, Photography, etc.

Nagriwari –Eco Park has been established under Scheme “Green India Mission” with a project cost of Rs.7.178 lacs during the year 2021-22. This Eco-Park has got an average tourist footfall of 15,000 per month, besides providing livelihood directly to 65 families.

KAIRWAN Eco-Park spread over a forest area of 18- Hectares at Anderbugh Lolab, Kairwan, or Kailvan Eco-Park is nestled in the dense and lush green forests. This Eco-Park has mesmerizing views, breathtaking landscapes, and lush green meadows. Adventure camps are being conducted in Kairwan Dever where tourists engage in activities like Zip-lining, Wall climbing, and sightseeing besides there are immense opportunities for



nature-based recreation like Guided Nature walks, Bird Watching, Photography, etc.

Established under Centrally Sponsored Scheme “CAMPA” during the year 2021-22 with a project cost of 4.92 lacs, Kairwan Eco-Park has got an average foot-fall of 10,000 visitors per month during summers, besides providing livelihood (dignified living) directly to 20 families.

SATBARAN Eco-Park, established under Centrally Sponsored Scheme “CAMPA” during the year 2022-23 at a project cost of 22.83 lacs, Satbaran Eco-park is spread over a forest area of 1.31 Hectares at Lastiyal Kalaroose near the famous Satbaran Caves. Satbaran Eco-Park remains the tourist hub as a large number of tourists daily throng there to see the famous Satbaran Caves and simultaneously enjoy the scintillating environs of Satnarn Eco-Park.

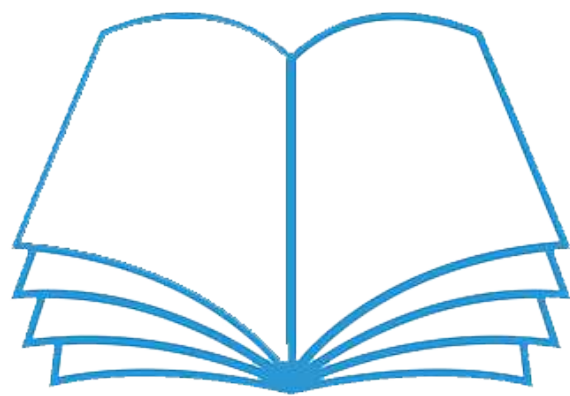
Satbaran Eco-Park has got a footfall of 12000 visitors per month on average, besides the park is providing livelihood to 25 families. Being an ideal location for adventure, sightseeing, camping, and trekking, Satbaran Eco-Park has great potential for eco-friendly activities and nature-based recreation like Rock-climbing, Guided Nature walks, Bird Watching, Photography, etc.

Apart from developing these Eco-Parks, Kamraj Forest Division has developed a number of Trek routes for Trekking enthusiasts such as the Trek-Route at Affan-Amri, Trek- route at Dever, the Trek-route at Kailwan-Trimukhan -Top through which these remote and undisturbed natural attractions have got explored.

Authorities are hopeful that these Trek routes and Eco-Tourism destinations will attract national and foreign tourists and researchers from all over the globe in the future.

“Ecotourism plays a vital role in conserving the local natural surroundings, promotes livelihood by raising awareness of sustainable forest development, motivating people to conserve forests and providing economic, social and cultural incentives for the local people while staying environment friendly,” said Dr. Zahid Mougali, DFO Kamraj.

“With the major success of these Ecotourism parks, and other infrastructure we are planning to develop 5 more such Eco-Parks including Eco-Park at Shadipora, Eco-Park at Chak Natnussa, Eco-Park at Lalpora, Eco-Park at Sogam and Eco-Park at Hemal Warnow under “Green India Mission” and “CAMPA” during the current Financial year 2023-24,” added DFO Kamraj.



JKPI Publications

SUSTAINING PASTORAL LIVELIHOODS IN J&K: CHALLENGES AND RECOMMENDATIONS



Pic credits: Kaleem Geelani



SMRUTI SMITA MOHAPATRA

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 herdsman 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 work 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 Punchi Bakerwali sheep are extinct now. The goat breeds reared by Bakarwals are Bhakerwal goat, Kilan, Kaghani and Lubdi. These breeds are on the verge of extinction. Adult Bhakerwal 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.

ECOLOGICAL CRISIS AND THE COMPLEX CAUSES OF MASS FISH DEATHS IN DAL LAKE



SEMRAN PARVAIZ

Kashmir Valley is known for its beautiful lakes all around the world. One of the lakes which is considered a gem lake in Kashmir is Dal Lake. The lake is surrounded by beautiful Zabarwan mountains and is one of the finest lakes in the world. However, the serene nature of this iconic lake has recently been shattered by a disturbing phenomenon. The unexplained and widespread mortality of fish in Dal Lake has sent shockwaves through the region, leaving experts and authorities scratching their heads and determined to uncover the truth. Here, we will try to unravel the mysteries surrounding this ecological crisis. By getting into the potential causes behind the fish deaths and examining the far-reaching implications for both the environment and the local community, we aim to shed light on the urgency and significance of this issue. Such incidents risk the future of Dal Lake, and it is crucial that we comprehend the magnitude of the challenges faced in order to pave the way toward effective solutions and safeguard the ecological harmony of this cherished natural wonder.

The Concerning Fish Mortality

The sudden and alarming death of fish in Dal Lake has triggered a wave of distress and concern among the local community and environmental experts alike. The unexpected and unexplained mass mortality of such a significant number of fish in the lake has raised serious questions about the underlying cause, leaving everyone worried.

In response to this ecological crisis, the court has taken a proactive stance, acknowledging the urgency of the situation and the need for a comprehensive understanding of the problem. To shed light on the matter, the court has directed the Pollution Control Board, Srinagar, to conduct an in-depth investigation and submit a detailed report on the quality of water and oxygen content in the lake.

This judicial directive emphasizes the crucial importance of analyzing the various environmental factors at play in Dal Lake, including water quality and oxygen levels. By examining these elements, experts hope to identify any potential contributors to the mass fish deaths and formulate effective strategies to address the underlying issues. The court's intervention signifies the seriousness of the issue and thrusts for immediate action to protect the fragile ecosystem of Dal Lake.

Potential Causes of Fish Mortality

The mass fish deaths in Dal Lake have prompted experts and authorities to propose various theories in an attempt to understand the cause of this ecological crisis. One leading hypothesis that has been put forward is thermal stratification. Officials responsible for maintaining the lake explain that thermal stratification occurs when different layers of water with varying temperatures form within the lake. This phenomenon can result in a depletion of oxygen in the deeper layers, leading to suffocation and the subsequent death of aquatic life.

A similar case of mass dead fish washup was recently observed on the Texas Gulf Coast, where thousands of fish were killed and washed up on the sand. Experts in the Texas Gulf have some sort of

opinion on what has led to the fish kill. They believe it is also due to higher water temperatures which lead to depletion of oxygen in the water. While thermal stratification is considered a potential factor, it is essential to explore other possible causes as well. Pollution emerges as a significant concern in relation to the deteriorating health of Dal Lake's ecosystem. Experts attribute the lake's pollution levels to industrial waste, untreated sewage, and the excessive use of fertilizers and pesticides in the surrounding areas. These pollutants have a profound impact on the quality of water in the lake, leading to a decline in oxygen levels and posing a serious threat to the survival of aquatic organisms.

The interplay between thermal stratification and pollution highlights the complex nature of the issue at hand. A comprehensive investigation is necessary to assess the extent to which each factor contributes to the mass fish deaths in Dal Lake. This multidimensional approach is crucial in order to devise effective mitigation measures and restore the ecological balance of the lake.

The Impact on Ecosystem and Human Livelihoods

The death of fish in Dal Lake not only has immediate consequences for the lake's ecosystem but also carries long-term implications for the local community. Fish play a crucial role in maintaining the delicate balance of the lake's food chain, and their loss disrupts the complex web of interactions within the ecosystem. With the depletion of fish populations, other species that depend on fish as a food source may struggle to survive, leading to a ripple effect throughout the entire ecosystem. This ecological imbalance poses a significant risk of biodiversity loss and further affects the fragile state of Dal Lake.

Furthermore, the local economy heavily relies on the lake for both tourism and fishing activities. Dal Lake's beauty and diverse aquatic life attract a considerable number of visitors each year, contributing significantly to the region's tourism revenue. However, the recent fish deaths can tarnish the lake's reputation and discourage potential tourists from visiting, resulting in a decline in revenue for local businesses. Similarly, the fishing industry, which serves as a vital source of livelihood for many residents, may suffer severe economic setbacks due to the diminishing fish populations. The loss of fish not only impacts the ecological integrity of Dal Lake but also affects the economic well-being of the local community, emphasizing the urgent need for conservation and sustainable management strategies.

The High Court's Directive

In response to the distressing phenomenon, the Jammu and Kashmir High Court has taken a proactive stance. Chief Justice N Kotiswar Singh and Moksha Khajuria Kazmi, while hearing a public interest litigation (PIL) on the preservation of Dal Lake, directed the government to proceed with the modification of the Master Plan 2035. The court emphasized the importance of following due process as stipulated by the Jammu and Kashmir Development Act 1970.

Furthermore, the bench acknowledged the seriousness of the situation and ordered the Director of Fisheries, Kashmir, to investigate the mass fish deaths. The court sought a prompt examination to determine the cause of the fish mortality and requested a detailed report on the matter. This proactive approach by the court highlights the severity of the situation and the need for urgent action.

The Need for Immediate Action

In light of the far-reaching consequences of fish mortality in Dal Lake, urgent and decisive action is needed. The court's directive to modify the Master Plan 2035 demonstrates a clear commitment

to rectifying the situation and ensuring the long-term sustainability of the lake. However, it is important to recognize that modifying the Master Plan alone will not suffice in addressing the multifaceted issues at hand.

Efforts must be focused on identifying and mitigating the sources of pollution that contribute to the deterioration of the lake. Strict regulations should be put in place to prevent untreated sewage and industrial waste from entering the lake. This would require effective enforcement mechanisms and regular monitoring to ensure compliance. Simultaneously, it is crucial to launch awareness campaigns targeting the local population to educate them about the importance of adopting sustainable practices and the detrimental effects of pollution on the lake's delicate ecosystem. Such campaigns can help foster a sense of responsibility and encourage individuals to actively contribute to conservation efforts.

Collaboration among government agencies, environmental experts, and local communities is essential for the successful restoration of Dal Lake. Engaging experts from various fields, such as ecology, hydrology, and environmental engineering, can provide valuable insights and guidance in developing comprehensive solutions to address the lake's challenges. Additionally, community engagement initiatives should be prioritized to cultivate a sense of ownership and involvement among the local population. This can be achieved through initiatives like community-led clean-up drives, educational

programs, and the establishment of local conservation groups. By working together, stakeholders can pool their expertise, resources, and efforts to safeguard the future of Dal Lake.

Conclusion

The large-scale death of fish in Dal Lake raises significant concerns that must be addressed urgently. The court's directive to modify the Master Plan 2035 and investigate the cause of the fish deaths reflects an understanding of the seriousness of the situation. It is crucial to thoroughly investigate the potential causes, such as thermal stratification and pollution, in order to take appropriate action without delay. Preserving the ecosystem of Dal Lake is vital not only for safeguarding its rich biodiversity but also for sustaining the livelihoods of the local community that depend on the lake for their economic well-being.

To restore the health of Dal Lake, a comprehensive approach is required. This approach should encompass efforts to identify and mitigate pollution sources, strengthen environmental regulations, and promote sustainable practices. Collaboration among government bodies, environmental experts, and local communities is essential in implementing effective solutions and ensuring the long-term health and vitality of this natural treasure. As custodians of the lake, it is our shared responsibility to protect and preserve Dal Lake for the benefit of present and future generations.



TUNNELING, LANDSLIDES ON NH-44, AND THE FRAGILE HIMALAYAS



KAINAT AZIZ

The Himalayas in Asia are some of the youngest mountains on Earth; formed 50 Ma ago due to the closure of the neo-Tethys sea and the subsequent collision of the Eurasian and Indian plates this mountain chain is still undergoing orogeny, the process of mountain formation caused by the movement and collision of tectonic plates. These mountains are not particularly stable since the rock mass is not very robust. Because of the highly deformable anisotropic rock mass and the considerable variation in geological parameters even within a relatively small local area, the geological stability of this particular area is especially precarious owing to the forces emerging from plate tectonics. Most of the Himalayas are subjected to significant summer rainfall, which can either amplify the pace of surface runoff or permeate into the ground, eventually leading to mass slides or flows.

Demands and Challenges of Development in the Himalayas

The construction and development of tunnels, motorways, water conveyance facilities, irrigation systems, and hydropower plants are in great demand close to the Himalayan mountain range because of the region's high population density. Large, permanent rivers

are common in the Himalayas since much of the mountain range is at altitudes of more than 4000 m when snowfall is the norm and some regions even see permafrost. Many hydroelectric projects are built with tunnels stretching hundreds of kilometers in order to harness the energy of these rivers. Also, the Himalayan areas are distinguished by their widely dispersed urban and rural habitation zones. The passage between these zones frequently entails the extensive mountainous belts that need to be carved in order to prepare the way for the passage of people and commodities. One of the reasons these areas are prone to landslides is that roads have been built in these transition zones, which destabilizes the mountain slopes.

Landslides on NH44: Impact on Lives and Economy

Due to landslides on this section of the National Highway-44 (NH-44), the whole Kashmir valley as well as the UT of Leh and Ladakh experience negative repercussions on an annual basis in the form of the loss of human life as well as harm to the economy. Between the years 2000 and 2010, this route was the scene of about 8000 incidents and was responsible for 2,000 deaths. In addition, the Kashmir Traders and Manufacturers Fund (KTMF) estimates that the prolonged obstruction of the National Highway has resulted in economic losses for the Kashmir valley that approach roughly 50 million rupees. The Kashmir valley is connected to the rest of India through the arterial National Highway (NH-1A, which is 270 kilometers in length. In 2010, NH-1A became known as NH 44. On this road lies the Jawahar Tunnel, which traverses the Pir Panjal Range and connects Jammu with Kashmir. In the past, various proposals for newly constructed tunnels were considered along the route. Among these, the Chenani-Nashri Tunnel as well as the new Banihal Double Road Tunnel have been put into existence. There are stretches of the route that passed over terrain that was quite

hazardous. As a result, the congestion in NH has developed into a pattern that has persisted over the course of many years.

Although there have been instances of landslide events in the past along NH44, the frequency of such occurrences has increased significantly after the route was widened and tunneled throughout the stretch. The majority of the landslides occur in the areas of Ramsoo, Maroog, Anokhifal, Panthyal, Battery Cheshma, Nashri, and Kheri along the Bichleri stream in the districts of Ramban and Udhampur. Between the years 2004 and 2016, India remained one of the nations that was most severely affected by landslides that were brought on by human activity. As a result, India was responsible for 18% of all casualties that were brought on by such landslides worldwide. The number of construction-related landslide incidents that occurred in India was 28%, followed by China (9%) and Pakistan (6%).

Tunneling and Landslides: Understanding the Risks

In the Himalayas, where people's lives are dependent on the occurrence of landslides, it is highly crucial to have an understanding of the mechanisms that initiate landslides. It is a well-known fact that landslides can be caused by tunneling that has not been properly anticipated or carried out. This is especially prevalent when the tunnel traverses an old landslide, which happens more often because of the fact that the characteristics of the active but now inactive mass movement were not detected during the ground research stage. The excavation of a tunnel can in fact lead to a quick progression of landslides, which can have a significant influence not only on the surrounding environment but also on any pre-existing structures or villages, and even on the tunnel itself in some cases. It is clear from the accident that took place in May 2020 in the Ramban district on the National Highway region, when the front face of a tunnel that was under construction collapsed and several construction workers were trapped within. The incident occurred between Ramban and Ramsu which has been a hotspot for landslide activities for ages. The incident could have been avoided and 10 lives could be saved if a proper landslide inventory of the region was considered on serious notes.

In another incident of 8 July 2023, a significant portion of a road on the Jammu-Srinagar route collapsed which was captured on film and has since gone viral. The landslide caused the road that connected two tunnels on the national highway to be swept away halting the traffic movement. Once such mass movements have been started, it is challenging and costly to get things back to where they were stable. These devastating incidents of landslides along NH44 also take place because of improper channeling of streams coming from upslope. Despite being well acquainted with the perennial streams draining the slope area, no proper engineering measures for their channeling has been done till now. This situation escalates during the rainy season when these streams get filled with more water coming down the slope with all force, washing away all that comes in its path.

Landslides along NH44 prove to be devastating not only to public property and human lives but the artificial slopes that created downslopes also threaten the aquatic flora and fauna of the mighty river Chenab that drains the foothills of the area. Because these artificial slopes are so unstable, slips are common after heavy rains due to erroneous dumping of material from the active slope or from the tunnels down the slope. While it is true that human beings have an innate need to progress with developmental activities and the building of new roads and trains, this should in no way be done at the expense of the environment, especially not now, when the entire globe is battling with the effects of climate change in the form incessant rains.

Recommendations

Mapping with the objective of developing early warning systems can help reduce the number of lives lost and, if the process is adhered to, can also be included in planning.

According to the IndiaSpend article, the Geological Survey of India (GSI) has completed a nationwide landslide susceptibility mapping project at a scale of 1:50,000 covering 85% of the total



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420,000 square km of landslide-prone terrain in the entire nation. The region depicted on these maps is currently being expanded, and at the same time, efforts should be made to localize them to ensure they are as accurate as possible.

In order to establish the alignment of the tunnels, it is necessary to delve further into the geomorphological factors, such as whether or not there are ongoing or inactive landslides as they are particularly susceptible to alterations of the stress-strain in the rock mass generated by subterranean excavation, either using a conventional or mechanical approach.

During the process of tunnel excavation, it is essential to make both short-term and long-term predictions on the progression of landslides. When used for this purpose, the data from satellite interferometry can be quite helpful in identifying sections of slopes that are characterized by active motions and assessing how they have evolved over the past few decades.

Conclusion

The impact of landslides on NH-44 is severe, affecting the entire Kashmir valley, Leh, and Ladakh, resulting in loss of lives and significant economic damage. To mitigate risks, early warning systems based on comprehensive landslide susceptibility mapping are recommended, using advanced technologies such as satellite interferometry to monitor slope movements. Understanding the geological risks and implementing sustainable development practices is crucial for safeguarding lives, property, and the environment in this fragile region.

THE SILENT CRISIS: A 75% LAND TRANSFORMATION AND 68% DECLINE IN WILDLIFE



ADEELA HAMEED

Humans have substantially changed a staggering 75% of our planet's ice-free land surface while wildlife populations have decreased by an average of 68% in just four decades. The leading cause behind this devastating decline – is human consumption! According to the Living Planet Report 2020, using the data from 20,811 populations of 4,392 species of mammals, birds, fish, reptiles, and amphibians, the index shows an average 68% decline in monitored populations between 1970 and 2016. Latin America and the Caribbean were found to be the worst-hit regions with an average drop of 94%.

The article presents a sobering account of unprecedented land transformation that has resulted in the destruction of natural habitats and ecosystems, leading to a devastating decline in wildlife populations, which have decreased by a staggering average of 68%.

Ecosystem destruction leading to extinction

Ecosystem destruction threatens over 1 million species of animals and plants, and insects, with evident extinction in the forthcoming decades and centuries, according to the World Wildlife Fund (WWF).

The WWF report claims that such abrupt wildlife population declines our planet has witnessed in recent decades have not been seen for millions of years. The over-exploitation of wildlife, conversion of grassland, savannah, forest, and wetland habitats, the introduction of non-native species, and climate change are the key drivers of this decline.

Conclusive data has shown that 85% of global wetlands have been lost since the Industrial Revolution. Freshwater biodiversity is declining rapidly as well. Each year since 1970, monitored populations of freshwater birds, reptiles, mammals, amphibians, and fishes have decreased by an average of 4%.

Human activity – the main driver of population decline

Population decline is indicative of the Earth's ability to support life. By the time the species is on the edge of extinction, it no longer is serving its ecological function.

The main driver of species decline is habitat destruction from expanding agricultural production. Distinct declines in freshwater ecosystems are seen largely because of the way humans dam rivers and the use of freshwater resources for producing food to feed a growing population of people.

To fuel our modern lifestyles, we are overusing the planet's biocapacity by at least 56%. However this biodiversity loss, coincidentally, threatens the world's food security.

While climate change is not yet the biggest cause of biodiversity loss, in the future, it will become a key driver of species decline unless world leaders take urgent action.

Habitat destruction could lead to more pandemics

Scientists have warned that further destruction of our planet would spell disaster.

Humans are converting rainforests to agricultural land for feeding a growing planet. The increasing demand for food, in general, and animal protein, in particular, has led to such massive conversions. However, in the process of forest fragmentation, humans are subjecting tropical forests' wildlife to poaching for sale in the worldwide market, thus exposing everyone to an array of novel, never-seen-before diseases.

It must be known that the longer the wild stays in supply chains with humans, the greater the risk of spillover of zoonotic diseases.

India's status as a mega-diverse country

With only 2.5% of the world's landmass, India has 8% of the world's recorded biodiversity. However, our country is among the nations most threatened by biodiversity loss.

The State of India's Birds Report 2020 – which analyzed data from 15,000 birdwatchers on the eBird platform – measured the abundance and distribution of 867 bird species. It concluded that of the 261 species, for which long-term trends could be determined, 52% have declined since 2000, with 22% declining strongly. Overall, 43% showcased a long-term trend that was stable while just 5% showed an increasing trend.

Vulture and eagle numbers have waned, and so have several neglected species like the Finn's Weaver. In two decades, Finn's Weaver populations have dropped by as much as 94% in Uttarakhand. According to the IUCN Red List, in five years, since 2015, the number of bird species at high risk of extinction in India shot up from 82 to 101.

On the other end, a massive decline in the population of Kashmir's iconic wildlife species, the Hangul (*Cervus hanglu hanglu*), continues to be a big concern. Conservation efforts, which had been going on for years, have not rendered any significant results so far. The biggest challenges identified in the way of conservation and population growth of Hangul are habitat fragmentation, human intervention, predation, and a very low fawn-female ratio.

Monitoring wildlife

Based on their threat status, endangered species are indexed under the Wildlife (Protection) Act 1972 in various schedules. Schedule I species are granted the highest degree of protection.

There are 159 species of freshwater fish threatened by extinction in India, none of them listed under the Wildlife Protection Act. A total of 180 species found in the country are critically endangered today, again many of these not recorded in the Act. Thus, the law doesn't outline what needs to be done to revive the species.

Sri Lanka and Bangladesh have, under the guidance of the IUCN, established national red lists to monitor the status of their flora and fauna. India had plans of doing a country-level assessment, but these have not been done so far.

Biodiversity crisis in India

International reports have ascertained that the destruction of wildlife habitats – forests, grasslands, rivers, wetlands – for dams, mining, industry, and agriculture is the most significant factor in decreasing wildlife numbers.

Our country has lost 90% of the area under its four biodiversity hot spots. The Indo-Burma hot spot is the worst hit. The area under vegetation has been reduced from 2,373,057 sq km to a mere 118,653 sq km, a loss of a whopping 95%.

Almost 25 species have gone extinct in these hot spots. The International Union for Conservation of Nature's Red List observes 1,212 animal species in India. It proclaims that over 12% of them are endangered. Of the 148 endangered species, 69 are mammals, 456 amphibians and 23 reptiles.

In addition, out of the 8,664 species that the IUCN Red List has listed in the country, about 13% are considered at high risk for extinction in the wild. Yet, India continues to unlock protected landscapes at a rapid rate.

Since 2015, India's environment ministry approved the felling of about 11 million trees for infrastructure projects. Between January 2019 and August 2020, the National Board for Wildlife cleared more than 692 hectares of inviolate wildlife sanctuaries to lay railroads, build highways, install mines, and launch industries. The clearances were illegal and violated the Wildlife Protection Act, which only permits encroachments beneficial to wildlife.

A majority of global GDP, about \$42 trillion, is dependent on high-functioning ecosystems. The assessment was done by Swiss Re, a global insurance firm. It argued that a fifth of the world's countries are at risk of biodiversity collapse. And it put India at the top – among the highest-risk nations.

Recommendations

Promote Sustainable Consumption: Encourage individuals and communities to adopt sustainable consumption habits, such as reducing meat consumption, buying locally sourced products, and opting for eco-friendly alternatives to minimize their ecological footprint.

Support Conservation Efforts: Advocate for increased funding and support for conservation organizations and initiatives that aim to protect and restore natural habitats, ensuring the survival of wildlife populations and their ecosystems.

Implement Stronger Environmental Policies: Urge governments to enact and enforce stringent environmental policies that regulate land use, deforestation, and wildlife protection. Collaborate with international bodies to tackle global environmental challenges collectively.

Raise Awareness: Utilize various platforms, including social media, educational programs, and community events, to raise awareness about the silent crisis. Engage people emotionally, making them understand the urgency of the issue and inspiring them to take action.

Foster Sustainable Land Management: Encourage sustainable land management practices among agricultural and

industrial sectors, emphasizing the importance of conserving biodiversity and natural resources.

Restore Degraded Landscapes: Support and participate in land restoration projects, such as reforestation and afforestation efforts, to reverse the impact of human-induced land transformation and enhance habitats for wildlife.

Wildlife Conservation Education: Integrate wildlife conservation education into school curriculums and public outreach programs, fostering a sense of responsibility and appreciation for nature among younger generations.

Collaborate with Indigenous Communities: Respect and involve indigenous communities in conservation efforts, as their traditional knowledge and practices often hold valuable insights into sustainable land use and wildlife protection.

Foster Green Technologies: Promote and invest in green technologies that can mitigate the negative impacts of human consumption on the environment, such as renewable energy sources and sustainable farming practices.

Engage Businesses and Corporations: Encourage businesses to adopt environmentally friendly practices and invest in conservation projects, emphasizing the role they can play in halting the silent crisis through responsible corporate social responsibility initiatives.

By implementing these recommendations, we can work towards mitigating the silent crisis, preserving the natural wonders of our planet, and securing a sustainable future for both humanity and wildlife.

Conclusion

Mangroves shield coastal villages from rising seas and floods. Wetlands purify and store water. Bees and insects pollinate crops. Clean, undammed rivers sustain fish populations that feed millions of humans. Do we really need a list to count the benefits of a healthy, stable ecosystem?

Biodiversity assessments have emphasized, time and again, how the future of humankind is entangled with the health of our ecosystems.

While the reports have found that nature is being over-exploited to the verge of destruction, many experts are of the opinion that the declining trends can be stopped, even reversed, with urgent action. The major areas to focus on would be transforming how we produce and consume food, tackling climate change, and conserving nature.

What will further help, if we are talking about short-term doable actions, is improving the quality of data. This can only happen when we use it for policy. Data is critical for policymaking. Data collection is also important because it is part of the art of governance. However, it is every bit as important that entire data sets are shared and worked upon. Such that these can be critiqued, and through this process used and improved upon.



CEMENT FACTORIES IN KASHMIR MUST BALANCE THE RELATIONSHIP BETWEEN ECONOMIC GAIN & ENVIRONMENTAL PROTECTION



PARVAIZ YOUSUF

Kashmir Valley is known for its natural beauty and wildlife throughout the world. However, the fragile ecosystems of Kashmir are facing a lot of problems that require immediate attention. Among many issues is the problem of cement factories in Kashmir and their location. As per the Department of Promotion of Industry and Internal Trade (DPIIT), ten cement plants are operating in Kashmir. These cement factories are located in the Khrew and Wuyan areas of Pampore and a few in the Khonmoh area of Srinagar.

Cement factories have long been recognized as important factors for industrial development, driving economic growth and creating employment opportunities worldwide. However, in the context of Kashmir, the establishment and functioning of cement factories have become a hot issue, sparking intense debates among stakeholders. Supporters of these factories focus on the positive aspects, asserting that they bring economic prosperity and solve unemployment concerns. Conversely, opponents raise valid concerns regarding the environmental problems and potential harm to the delicate ecosystem of the region.

In light of this ongoing issue, it is crucial to assess the social, economic, and environmental implications of these factories to arrive at a clear understanding of their overall impact. Therefore, this publication will discuss the multifaceted aspects of cement factories in Kashmir, examining the arguments put forth by both sides. By comprehensively analyzing the available information and perspectives, we will try to offer an informed and balanced opinion on whether the presence of cement factories in Kashmir is a beneficial development or a detriment to the region.

The Environmental Impact of Cement Factories in Kashmir

Cement factories are integral components of industrial operations, but they also pose risks of environmental pollution. It is quite evident that pollution by these factories adversely affects the ecosystem and leads to adverse environmental consequences. They offer an intricate web of negative impacts that result from the emission of harmful gases, dust particles, and untreated wastewater.

The emissions released during cement production can contribute to air pollution, compromising the quality of the surrounding atmosphere. These emissions often contain particulate matter, such as dust particles, which can have detrimental effects on both human health and the ecosystem. Inhaling these particles can lead to respiratory issues and other health complications for individuals residing in the vicinity of cement factories. Moreover, the deposition of these particles on plants and crops can stop their growth and compromise agricultural productivity.

The untreated wastewater generated by cement factories poses another significant concern. The discharge of such wastewater into nearby water bodies such as Chatlam Wetland Reserve can contaminate local water sources, affecting aquatic ecosystems and affecting the availability of clean water for human consumption

and agricultural purposes. This contamination can disrupt the delicate balance of aquatic life, leading to a decline in biodiversity and the degradation of aquatic habitats.

Additionally, the excessive extraction of limestone, a fundamental raw material in cement production, can have far-reaching environmental consequences. The uncontrolled extraction practices may result in deforestation, as limestone deposits are often found in areas with dense vegetation. The removal of trees and vegetation can disrupt ecosystems, reduce carbon sequestration capacity, and contribute to soil erosion. Furthermore, habitat destruction caused by excessive limestone extraction can threaten the survival of various plant and animal species, further worsening the ecological impact.

Another major factor is the location of these cement factories. They are located just by the side of the core of Dachigam National Park, which is the only habitat for the last surviving members of critically endangered hangul. Having such large industries just within the reach of a national park can prove a serious blunder in the near future. The smoke and dust coming out of these factories directly enters the core national park and adversely affect the environment.

Similarly, the air quality in Khrew, Wuyan, and Khonmoh areas is one of the worst in Kashmir because of these factories. The trees, as well as houses, are always covered in a blanket of cement dust. People from these areas are suffering from many respiratory ailments, affecting their health. These respiratory ailments caused due to bad air quality has already taken a toll on people in these areas.

Socioeconomic Benefits of Cement Factories in Kashmir

The other side of these cement factories is about the positive implications of cement factories in Kashmir, presenting a contrasting viewpoint in the ongoing debate. It emphasizes the significant benefits associated with the establishment of these factories, particularly in terms of job creation and economic development.

One of the key advantages is the employment opportunities generated by cement factories. The presence of these factories opens up avenues for local residents from Khrew, Wuyan, and Khonmoh, providing them with stable and sustainable livelihoods. The creation of jobs not only improves the economic conditions of individuals and their families but also fosters a sense of empowerment and self-sufficiency within the community. The steady income generated through employment in cement factories enables individuals to meet their basic needs, access better education and healthcare, and contribute to the local economy through increased purchasing power.

Additionally, the construction of cement mills may benefit linked sectors of the economy. The need for cement as a building material propels the development of the construction industry and expands job opportunities in trades like construction and engineering. In order to facilitate the transfer of raw materials and completed goods, this, in turn, causes a boom in demand for transportation and logistics services. This is why the economy of residents of Khrew, Wuran, and Khonmoh is mainly dependent on trucks that carry the cement. A multiplier effect is produced by the relationship between cement manufacturers and these sectors, growing overall economic growth and diversification.

Cement factory-driven economic growth has the potential to draw in investment and encourage regional infrastructure development. These factories may act as catalysts for the creation of industrial zones and industries because they are industrial hubs. To support the expansion of the cement industry and accommodate

related economic activity, improved infrastructure, such as roads, electricity supplies, and water resources, becomes essential. This infrastructure improvement could help the entire region in the long run by improving connectivity, boosting trade, and luring in more investments.

It is critical to recognize the potential advantages of cement plants for Kashmir's employment and economic growth. It is equally important to make sure that these advantages are attained in a sustainable and responsible manner that takes into account social and environmental well-being. Utilizing the economic potential while limiting negative consequences and fostering a balanced approach to development is made possible by putting in place the necessary rules, encouraging ethical behavior, and keeping an eye on how cement plants are operating.

Balancing Economic Development and Environmental Conservation

Building a careful balance between economic growth and environmental preservation is crucial when considering how cement factories should operate. Despite the potential economic benefits that these factories may have for the area, it is essential to make sure that they run sustainably and responsibly. The establishment of strict environmental restrictions is required to achieve this important goal. These standards should cover key issues like air pollution, water management, waste disposal, and biodiversity preservation. To lessen their negative effects on the environment, cement producers must abide by these laws and make pollution prevention investments. Dust filters and other cutting-edge technology can be installed in every factory to assist in lowering the amount of airborne contaminants, protecting both people's health and the environment. To ensure that industrial effluents are correctly handled before being released into water bodies, prevent water pollution, and save aquatic life, wastewater treatment plants must be built.

Another important factor that needs to be given top priority is the proper disposal of industrial waste. The safe handling and disposal of waste materials are among the appropriate waste management procedures that cement plants must follow. Avoiding contaminating soil and water supplies helps maintain the quality of the local ecosystem.

As a main raw material for the manufacture of cement, limestone extraction must also be minimized for environmental reasons. Reforestation initiatives can be put in place to combat habitat loss and deforestation brought on by extraction activities. The ecological impact of mining limestone can be reduced, and biodiversity can be preserved by restoring habitats and using sustainable mining techniques.

It is also crucial to make investments in Research and Development (R&D) projects. Cement producers should devote resources to investigating and implementing cleaner production methods. This can involve technological advancements, including the use of alternative fuels, increased energy efficiency, and a decrease in carbon emissions. The industry may lessen its environmental impact while preserving its economic viability by embracing these innovations.

Strengthening Environmental Governance

Strengthening environmental governance and regulatory frameworks is essential to ensuring the long-term viability of cement companies in Kashmir. Enforcing strict adherence to environmental norms requires active participation from governmental agencies. This calls for routine inspections of cement manufacturers to ensure compliance with pollution control measures, waste management procedures, and other environmental standards. To discourage any problem in upholding environmental commitments, non-compliance should be punished with suitable consequences.

For the local community to have a feeling of ownership, it is essential to promote public interaction and participation. Transparency and accountability can be encouraged by including community members in decision-making processes and offering

forums for their opinion. This involvement also makes it possible to include local information and viewpoints, which aids in the creation of efficient legislation.

The government should also give top priority to research and development projects aimed at environmentally friendly cement manufacturing methods. This includes funding scientific research and innovation to find and promote greener technology and business practices. Giving cement producers incentives to use these sustainable practices can further promote their widespread adoption, resulting in a decreased environmental impact and improved sustainability.

Recommendations

To strike a balance between economic growth and environmental conservation, the following recommendations are proposed:

Establishing a thorough environmental impact assessment procedure that assesses the potential ecological effects of cement mills in Kashmir is essential. This method should encourage ethical and sustainable business practices by ensuring that all manufacturers adhere to national and international environmental norms.

To guarantee that cement plants follow pollution control measures and appropriate waste management procedures, strict monitoring and enforcement systems should be put in place. Environmental standards may be maintained, and the damaging effects of cement production can be reduced through frequent inspections and fines for non-compliance.

To reduce the environmental impact of cement production, it is crucial to promote the development of cleaner production technology. This can involve using alternative fuels, energy-saving techniques, and cutting-edge emission control technologies, which will lessen the total environmental effect of cement production.

Promoting sustainable mining techniques is crucial to reducing the negative effects of limestone extraction. This may entail taking steps to reduce deforestation, soil erosion, and disruption to regional ecosystems, as well as restoring habitat and employing best practices.

Investigating cutting-edge and environmentally friendly cement production techniques requires investment in research and development projects. This can mean creating novel cement formulas, investigating carbon capture and storage technologies, and identifying substitute materials that lessen dependency on limestone in order to promote more ecologically friendly and sustainable business practices.

Government agencies must be strengthened to properly regulate cement factories and guarantee adherence to environmental standards. Additionally, raising public knowledge of environmental preservation and sustainable development can motivate people to take an active role in preserving the environment, which will help Kashmir have a more sustainable future.

Conclusion

A complex scenario for careful assessment of the trade-offs between economic advantages and environmental concerns is created by the existence of cement factories in Kashmir. Although these facilities may have a good impact on economic development and job creation, it is critical to address the environmental issues they raise. A thorough strategy is required to secure a sustainable future. This includes putting in place tight monitoring and enforcement procedures, thorough environmental impact studies, and strong regulatory frameworks. The environmental impact of cement production can be reduced by supporting the development of cleaner production methods, such as alternative fuels and energy-efficient processes. Cement manufacturers in Kashmir could benefit the area by finding a balance between economic growth and environmental sustainability. It is feasible to maximize the economic gains while limiting the negative environmental effects through good governance, preventive measures, and responsible behaviors, ensuring peaceful coexistence between industrial progress and environmental preservation in Kashmir.

ANALYZING THE TRANSITION OF PANCHAYATI RAJ INSTITUTIONS IN JAMMU AND KASHMIR



NEHA AGGARWAL

Introduction

Governance is a multifaceted and multi-layered activity. It is composed of a diverse set of actors and processes carrying out the day-to-day activities of the state administration. Be any form or type of polity, governance is critical in the functioning of state machinery. Often there is a hierarchy in the governance structure. At the top is the union government, then the state, and eventually at the

lowest level is the local self-government. Hierarchically, most of the power is concentrated with the union, then to states, and eventually to the lowermost unit i.e., villages. However, Panchayati Raj Institutions (PRIs) in India were envisioned to empower local communities and ensure their participation in the decision-making processes. The system of panchayat raj where people in the villages participate in the decision-making process, is the backbone of democracy.

Panchayat Raj Institutions in India

The roots of the Panchayati Raj in India can be traced back to ancient times, with references to village assemblies and councils found in ancient texts such as the Arthashastra and the Manusmriti. In the medieval period, Delhi sultans divided their kingdom into provinces called 'Vilayat'. The villages had sufficient powers regarding self-governance in their territory. However, it was in the post-independence era that Panchayati Raj was formalized. The Panchayati Raj was

first adopted by the Naguar district in Rajasthan on October 2, 1959. The system was gradually established all over India. It was constitutionalized through the 73rd Constitutional Amendment Act, of 1992. However, this amendment was not applicable to J&K owing to its special status till August 2019.

Panchayati Raj System in J&K

The history of the Panchayati Raj System, as we see it today in Jammu and Kashmir, can be traced to the times of Maharaja Hari Singh. He introduced the panchayati raj system in 1935 to settle the local disputes of people in rural areas, or to assist judicial and civil administration. Subsequently, in 1947, all powers were transferred to Sheikh Mohammad Abdullah who amended the 1935 Panchayati Act in 1951 and 1958 to expand the role of Panchayati raj institutions. The institution, however, was limited to village-level disputes only. This practice remained till the late 1980s. It was only in 1989, that the Government of Jammu & Kashmir enacted new legislation that provided for the three-tiered Panchayati Raj system, namely The Halqa Panchayat, Block Development Council (Block Smiti), and District Planning & Development Board— also known as Zila Parishad in other states.

A major structural shift in the federal character of Indian polity was experienced with the abrogation of Article 370. It discontinued the legacy of the Panchayati Raj Act, of 1989 which remained in operation for 34 years until the abrogation of Article 370 in 2019. Panchayat Raj Act, 1989 was embedded with numerous flaws. It failed to serve the purpose of making the Panchayats units of self-governance. The prominent flaw emerges from the structure of the District Planning and Development Board. Rather than in line with the Panchayati Raj Institutions, the structure is in line with the Single Line Administration system (where the district is the unit of administration) that was introduced in the State in the mid-seventies of the last century. Thus, the aspiration of decentralized planning remained unfulfilled. Moreover, women's reservation in the Act was limited to the level of Panchs and was not extended to the level of Sarpanches. Furthermore, just the Village Panchayat level was mentioned, not the other two levels. At the societal level, prejudice against women has been sustained by the firm social structure, which is responsible for the exclusion of women. The first panchayat elections, which were held in J&K in 2011, painted a dismal picture of the involvement of women. Only 29 women were able to win the elections out of the 4128 Sarpanches seats in the 22 districts of the State, resulting in a pitiful success rate of less than 1% (0.70%). According to information gathered by the State's Chief Electoral Officer, there were no women serving as Sarpanches in 10 of the 22 districts.

At the operational level, the biggest issue remained the powerlessness of the Panchayats. No doubt the act of 1989 talked about the devolution of powers and empowerment of Panchayat, however, at the operational level it lacked effective power. This highlighted the disability of the act. It is often argued that there is a

tendency that power often remains confined at higher echelons. While contextualizing and extending this argument in Jammu and Kashmir's case it is observed that UT is not an exception to skewed concentration of political power at the higher levels. Thus, many believe that the Panchayati Raj Institutions in J&K existed on paper till the abrogation of Article 370. The claim is that it is only after the abrogation of J&K's special status and its transition into a Union Territory that these institutions started functioning on the ground. This article delves into the critical analysis of this claim.

The abrogation of Article 370 and the reorganization of the state has led to a significant political transition. This transition has caused a degree of uncertainty and confusion among the local leaders and panchayat members, as they navigate the new political landscape and the changes in their roles and responsibilities. While the Panchayati Raj system is intended to devolve power and decision-making authority to the grassroots level, there are still apprehensions about the extent of autonomy given to panchayats in the newly formed Union Territory. The central government retains a significant role in decision-making, which could limit the true empowerment of local bodies. Amid all these concerns, however, the positive development that was witnessed post-abrogation of Article 370 was the release of Rs 800 crore by the center in four installments between March and August 2019, ahead of its move to abrogate Article 370, and after August 5, 2019, Rs 1,200 crore more were released. In totality the Panchayats were given Rs 2,000 crore to work on the schemes aimed at benefiting a common man in J&K. Even being a Union Territory administered by the Union government, Panchayati Raj institutions in Jammu and Kashmir are still plagued with limited financial autonomy, with a significant portion of their funds being routed through the state or central government. This can lead to delays in fund allocation and hinder the timely implementation of development projects.

Post 370 abrogation, one more positive development that the Union Territory witnessed was the conduct of the maiden District Development Council (DDC) elections in 2020. These polls were a big leap towards an inclusive and grassroots level development reiterating the government's mantra of 'Sabka Saath, Sabka Vikas, Sabka Vishwas, Sabka Prayas' and in the principle of justice for all, appeasement to none.

Subsequently, in 2020 the Union territory administration announced district planning council elections in this context. This could have been an appreciable step however, the Union cabinet amended the Jammu and Kashmir Panchayati Raj Act, 1989, and mandated electing 14 members each to 20 DDCs thus redesigning the existing design of legislative democracy in Jammu and Kashmir. This has violated the 73rd constitutional amendment's directive that district-level constituencies be created in accordance with population ratios. Regardless of how big or small a district is in terms of size or demographics, the DDC has an equal number of elected members. Therefore, the Srinagar district, which has a population of over 12 lakh, and Kishtwar, which has a population of about 2.5 lakh,

both have 14 members. While Ganderbal only has a 250 sqkm. area, Doda has an almost 9,000 sqkm. area. The only reason DDC exists, then, is for representative politics (or the panchayats or municipalities).

In addition to this, there are also concerns that the panchayati raj institutions may end up becoming an instrumental organ or implementing organ of centrally and state-sponsored welfare programs instead of units of self-governance. The experiences of other states reveal that the Panchayati Raj Institutions implement poverty alleviation programs for the transformation of rural society. Field studies reveal that during this implementation, the local representatives show nepotism in distributing and citing the work for the development in the village. To predict the Panchayati Raj system's future in J&K, however, would be premature. Although the 73rd Constitutional Amendment is in effect, the experience of other states demonstrates that these institutions are primarily functioning as the organs of centrally sponsored schemes rather than the units of self-government. This will depend on how the central government engages and takes this issue seriously.

Moreover, the central government has also not yet taken any strong steps to enhance women's participation in the institution of grassroots-level democracy. According to data from the Ministry of Panchayati Raj in India, as of 2021, the national average of women's representation in Panchayati Raj institutions stood at around 46%. Along with this, the practice of proxy sarpanch continues diluting the very purpose of providing 33% reservation to women in panchayats. The reservation was expected to eventually pave the way for the emergence of women leaders in urban bodies, state Assemblies, and Parliament but sadly little has improved. Proxy sarpanches diminish women's authority and block the election of women keen on bringing about a change in society through a career in politics. Jammu and Kashmir is not an exception in the issue of proxy practice in rural local self-government bodies, where the de jure elected representative is subverted and a de facto representative wields power. Women are given tickets because the 73rd constitutional amendment mandates it. They are elected as panch and sarpanch on reserved seats in local self-government institutions and district development councils are relegated to the background while male relatives attend the meetings on their behalf. With most women reduced to being just de jure village chiefs and their male kin enjoying the de facto status, their nurturing into evolving as powerful forces have suffered. The research findings reveal that the reason for the proxy system is the unhealthy work environment and accusations that women elected representatives often face on the ground. The volatile political situation and security concerns render many women wary of contesting, while some are fielded by

male relatives as a backdoor to power.

Amid all these positives and negatives, let's not be oblivious to another significant issue of conflicting ideologies and interests that hinder consensus-building and decision-making processes and may impede democratic decentralization in J&K.

Recommendations

Addressing the challenges faced by Panchayati Raj institutions in Jammu and Kashmir requires a multi-faceted approach involving various stakeholders. Sensitization and awareness programs should be conducted to challenge patriarchal norms, promote gender equality and encourage women's active participation. Strengthening the implementation of reservation policies is essential, along with providing support and mentorship to promote women's leadership within these institutions. Also, there is a need to deploy safety measures to ensure the safety of women representatives in Panchayati Raj institutions. This includes providing security personnel, establishing helplines, and creating mechanisms to address and report any security concerns or threats faced by women representatives. Furthermore, efforts should be made to strengthen the financial autonomy of Panchayati Raj institutions by ensuring timely and adequate fund allocation. Transparent and accountable financial systems should be established to minimize delays and ensure the effective utilization of funds. By embracing these recommendations and taking proactive steps to address the challenges faced by Panchayati Raj institutions in J&K, we can pave the way for a stronger and more inclusive local governance system.

Conclusion

From ancient times to the modern era, local self-governance has seen transitions initially from the centralization of power to the era of democratic decentralization in the 1990s. Through various legislative enactments in J&K such as the Panchayat Raj Act of 1989 to the abrogation of article 370 by the Union of India, the Panchayati Raj system was restricted in former while in later cases it was applied to the whole of J&K. However, albeit all this still Panchayat Raj system is plagued with bottlenecks such as uncertainty and confusion regarding roles and responsibilities of local governance, limited financial autonomy, and the continuance of practice of proxy sarpanch. These bottlenecks if properly addressed can facilitate better coordination, widen the scope of inclusive development, increase the cooperation between various actors, and ensure participatory governance at the grassroots level.

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.

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.

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

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 moorcroftiana 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	Scrophulariaceae	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	Plantaginaceae	Buth Posh	The herb is given to patients suffering from cardiac problems
16.	Euphorbia helioscopia Linn	Euphorbiaceae	Duduj	The latex of the plant is applied on skin eruptions to get rid of them. Plants are made into a 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 move 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.

World Tribal Day - photo feature

