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COVER STORY

## Gross output of vegetables in J&K to double from Rs 3982.50 Cr to Rs 8021.25 Cr per year

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# Gross output of vegetables in J&K to double from Rs 3982.50 Cr to Rs 8021.25 Cr per year

48000 jobs, 4700 enterprises to be created through precision farming interventions



JAMMU: A major change is brewing in the Vegetable sector of Jammu and Kashmir through precision farming intervention which will double the gross output of vegetables from Rs. 3982.50 Cr to Rs. 8021.25 Cr per year.

The intervention which shall be carried out over the next five years by the Agriculture Production Department (APD), shall involve a project cost of Rs 420 crores.

“Commercial vegetable farming has been identified as a key tool in achieving economic prosperity of the farming community through a significant income boost and the Agriculture Production Department has laid a great emphasis on commercial production of local & exotic vegetables,” said Additional Chief Secretary (ACS), APD, Atal Dulloo. He further said that J&K has a unique advantage as compared to the rest of the country in that it can undertake year-round cultivation of vegetables and can grow almost every vegetable crop, including exotic ones which are in high demand and have export potential.

‘Promotion of Vegetables/Exotic Vegetables under Open and Hi-Tech Protected Cultivation’ is one among the 29 projects, which were approved by the Jammu and Kashmir administration after being recommended by the UT Level Apex Committee for holistic development of Agriculture and Allied Sectors in UT of J&K. The

prestigious committee is headed by Dr Mangala Rai, Former DG ICAR and has other luminaries in the field of Agriculture, Planning, Statistics & Administration like Ashok Dalwai, CEO NRAA, Dr. P. K Joshi, Secretary, NAAS, Dr. Prabhat Kumar, Horticulture Commissioner MOA & FW, Dr. H. S Gupta, Former Director, IARI, Atal Dulloo, ACS, APD, apart from the Vice Chancellors of the twin Agriculture Universities of the UT.

Presently, demand for vegetables in J&K is met by both domestic vegetable production to the tune of 1991.25 thousand metric tons worth Rs 3982.50 crores and imports of another 318.26 metric thousand tons valued at Rs. 636.52 crores annually. “The quality of imported vegetables in terms of nutritional value and freshness, however, gets affected due to long transportation and perishable nature of the produce, due to which almost double than the estimated requirement for vegetables is imported and sold at high costs”, said Chowdhary Iqbal, Director Agriculture Kashmir, who is implementing the project in collaboration with SKUAST.

From SKUAST-K, Dr Khurshid Hussain, Assistant Professor, Vegetable Sciences who co-drafted the project proposal said that domestic production of vegetables offers tremendous scope to make available fresh and nutritionally superior vegetables to the population at cheaper prices than current inflated prices. He added that with the proposed new cultivation over a net area



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of 5,000 hectares, the vegetable industry in J&K under open field conditions would produce about 360 thousand metric tons annually worth Rs 720 crores at the current price.

“Under the project identification of beneficiaries & cluster formation shall be achieved after proper planning followed by Land Development, and identification of specific vegetable crops for specific areas, besides off-season vegetables can be exported to other states taking advantage of natural temperate climatic conditions fetching premium prices for our farmers,” said Dr Hussain.

The project also undertakes to intensify vegetable cultivation through the design, manufacturing, and establishment of new and improved region-specific tech structures with automation. This shall facilitate the cultivation of high-value vegetables and exotic crops like broccoli, brussels sprouts, asparagus, lettuce, red cabbage, Chinese cabbage, parsley, celery, cherry tomato, etc. which possess great demand in domestic and foreign markets as well as the tourism industry.

Under the project, 1100 Hi-Tech protected structures over an area of 55 hectares will be established to produce 59.40 thousand metric tons of high-value & exotic vegetables valued at Rs. 409 crores. To overcome the dearth or non-availability of high-quality planting material, low-cost protected structures in the form

of 3584 playhouses over another 55 hectares will be established complementing vegetable nursery production to capitalize on the early vegetable growing season and enhancing cropping intensity. An essential component to bring about this revolutionary change in the vegetable production scenario involves research and development for designing new varieties and production technologies.

The vegetable production plan shall be in tight consonance with market requirements, transport, and linkage value chains, through the signing of MoUs with Private (National/Multinational) Fresh Vegetable Retail Outlets and Public Sector Undertakings (Agro-Industries & JKHPMC).

A huge stress has also been laid on the training entrepreneurs for successful business ventures in JK, said Sheikh Imran, Technical Officer at the Directorate of Agriculture, Kashmir. The project shall create around 4700 enterprises and provide gainful year-round employment for 47,250 persons.

The agriculture department in collaboration with SKUAST-Kashmir shall be implementing this project, with the objective to resolve the currently increasing vegetable deficit problem in J&K with a major focus on exporting high-value exotics, besides supporting the indigenous tourism industry where such vegetables are much sought-after.





# Govt constitutes committee to frame export policy for agricultural commodities

## Initiative to enhance annual agricultural exports from 190 cr to 3000 cr in next 5 years

Jammu: The Jammu and Kashmir government has constituted an expert committee to formulate a comprehensive Export Promotion Policy for identified potential exportable agricultural commodities, an official press release informed Thursday.

It said the primary assignment of the committee would be to develop commodity-specific export promotion recommendations which inter alia shall include strategic and operational aspects of the export. Besides, it shall provide all necessary technical inputs to the Agriculture Production Department within a set timeline of one month for finalization and implementation on ground.

The main objective of the Export Promotion Policy would be to increase annual agricultural exports from current ₹190 crore to ₹3000 crore over next five years, the press release said.

Besides, the policy would promote brand “J&K” for its pristine agro-climatic conditions, uniqueness and near organic quality. It would also diversify the UT export base and thereby empower farmers with adequate export opportunities. The policy would create an ambient ecosystem for exporting of agricultural commodities from J&K.

The policy would lay emphasis on bringing a paradigm shift in the approach from mere harvesting and selling of produce at the local level to a demand-driven supply activity with focussed attention on GI tagging, processing, stringent quality control, international certifications, traceability, branding and marketing of the produce. The diverse agro-climatic

conditions of J&K have resulted in the development of niche crops offering the adoption of a holistic approach for the promotion of agricultural exports. This shall help the growers in finding post-harvest solutions at better prices within or near the production belt.

Furthermore, the document inter alia shall also focus on market access initiatives through assistance by Export Promotion Organizations, Trade Promotion Organizations, National Level Institutions, Research Institutions, Universities, Laboratories and Exporters etcetera for enhancement of exports by accessing new markets or by increasing the share in the existing markets. Besides, assistance shall also be extended in establishing quality control setup, national/international certifications, GI, transport and marketing assistance and all other prerequisite shall be duly taken care of for identified Agriculture Products like apple, basmati rice, walnut, almond, cherry, saffron, vegetables including red chilli & garlic, honey, wool, silk, pulses, lavender, aromatic plants etcetera. Likewise, services of Agricultural and Processed Food Products Export Development Authority (APEDA) shall also be utilized in achieving the envisaged goals.

Implementation of the Export Promotion Policy shall accelerate the pace of achieving a vibrant and commercially viable agriculture by harvesting the competitive advantage of J&K's geo-climatic diversity to the fullest. Besides, this will monetize agricultural produce through export promotion and shall add a new dimension to the agricultural economy of J&K.



# JKRLM encouraging entrepreneurship culture among women

SRINAGAR: J&K Government has established an encouraging and conducive environment for promoting women's entrepreneurship culture across the Union Territory through Jammu and Kashmir Rural Livelihoods Mission (JKRLM).

Jammu and Kashmir has made remarkable progress under RLM by providing training as well as financial support to various SHGs and making them self-sufficient.

JKRLM's mandate is to reach out to 66 per cent of the rural population across the 125 blocks of Jammu and Kashmir. The core values which guide all the activities under JKRLM are the inclusion of the poorest and substantial role of the poorest in all the processes, transparency and accountability of all processes and institutions, proprietorship and the key role of the poor and their institutions in all the stages – planning, implementation and monitoring and lastly community self-reliance and self-dependence.

National Rural Livelihoods Mission (NRLM), implemented by the Union Ministry of Rural Development, is focusing on promoting self-employment and organisation of rural people, especially the poor. The project aims to reduce poverty in the Union Territory by building strong grassroots institutions for the poor, engaging them in gainful livelihood interventions, and ensuring appreciable improvement in their income on a sustainable basis.

This programme also aims to enable the poor to think positively about themselves and their family and reap all benefits of government schemes, which ultimately helps them live a life of contentment, happiness, and dignity.

In Jammu and Kashmir, a number of projects are running under JKRLM, of which Mahila Kisan

Sashaktikaran Pariyojana (MKSP) and the Start-Up Village Entrepreneurship Programme are making remarkable progress. MKSP is a sub-component of Deendayal Antyodaya Yojana-NRLM and aims to empower women in agriculture.

The objective is to strengthen small agriculturists through the promotion of sustainable agriculture practices such as Community Managed Sustainable Agriculture, Non-Pesticide Management, Zero Budget Natural Farming, Pashu-Sakhi Model for doorstep Animal Care Services, and Sustainable Regeneration and Harvesting of Non-Timber Forest Produce.

Additionally, the focus of MKSP is on capacitating the smallholders to adopt sustainable climate change resilient agroecology, eventually creating a pool of skilled community professionals.

The Start-up Village Entrepreneurship Programme (SVEP) also envisages assisting rural households, including women, to set up enterprises that aid them in their financial upliftment. Moreover, building support is provided to all the entrepreneurs backed under the SVEP through Community Resource Persons for Enterprise Promotion.

The enthused businesswomen of the UT are climbing the ladder of success with support from the UT administration in the form of numerous lucrative incentives under different schemes, thus achieving the highest echelons in the world of enterprise.

The key initiatives launched by the administration for supporting women entrepreneurs, commensurate with their educational background and experience are proving tangible results. The government ensures that women rise as a beacon of enlightenment and become vital drivers in the developmental journey of Jammu and Kashmir.





Punjab International Trade Expo - 2022

## Kashmiri women turning business models for other states

AMRITSAR: Punjab International Trade Expo (PITEX) – 2022, a premier trade and business exhibition organized by PHD Chamber of Commerce and Industry in Amritsar, witnessed enthusiastic participation of women entrepreneurs from Jammu & Kashmir. A complete pavilion was named after 'Jammu and Kashmir' with other exhibits, which rarely has happened in 16-year history of PITEX.

Owing to conditions of turmoil over years, women of Jammu and Kashmir, in comparison to mainland India, are seen as more reticent in terms of business entrepreneurship, but now could be seen at PITEX increasingly stepping out of not only their homes but their home state and competing in business circles in the country.

Director Handicrafts and Handloom, Kashmir, Mahmood Ahmad Shah while talking to 'Kashmir Images' from Srinagar said, "I wish to see the women of Jammu and Kashmir touch the skies in every field. My good wishes and support is always with the skilled craftsmen and craftswomen who create magic with their handicrafts. Alongside, I see men's support for women in business increasing, which bodes for encouraging results."

As many as 70 businessmen and businesswomen arrived from J&K to participate in the Amritsar leg of PITEX.

Srinagar's Shahina Akhtar, who is a participant, said, "I am giving employment to dozens of women. Till some time ago women were hesitant to work in Kashmir. Now the thinking of the people of Kashmir is gradually undergoing a change and girls of Kashmir are becoming role models for the country".

Another woman entrepreneur from J&K, Mehroon Bali, an artist said, "Through PITEX I got such a platform where I can not only promote my product but can also earn money."

It may be mentioned here that women-owned businesses pay a fraction of the cost for stalls in this initiative of PITEX.

Kashmir's Madiha Talat, who displayed her cosmetics created

from organic and natural herbs said, "I couldn't ever dream of traveling to other states to market my product. I give full credit to the men in my family who support me thoroughly. I couldn't be luckier than this. My product is unique, pure and to a point, everything natural has been used to make it."

Srinagar's Irfana – a businesswoman, who strongly felt for the women of her state said – "Girls from my state have experienced setbacks earlier due to non-conducive atmosphere. Troubled years set us back several decades, while the world has moved forward in leaps and bounds. For this change to become a reality and for our state to become prosperous, the perception towards women has to be changed! The women who have managed to reach PITEX with their products are not only doing business worth lakhs and crores, but are also providing employment to thousands of women and the spiral effect is coming to families of such women, artisans, and other related people of Jammu & Kashmir."

Meanwhile, Riyaz Ahmed Kaus, Publicity and Exhibition Officer of Jammu-Kashmir Handicrafts and Handloom informed that in comparison to 20 stalls last year, this year 35 stalls from Kashmir are set up.

"From Jammu, there were 15 stalls last year while this year we have 20 stalls, besides Jammu and Kashmir Trade Promotion Organization JKTPPO also has set up 20 stalls," he said.

Among Indian states, Uttar Pradesh had the maximum number of stalls, while international exhibitors including handicrafts from Pakistan, Iran, Afghanistan, Egypt, Dubai, Thailand, and Turkey were displayed and attracted huge footfall.

Trendy and healthy organically grown fruit juices, herbs and spices and cold pressed oils, cherries, dry fruit, asafoetida or hing from Afghanistan, and saffron from Kashmir and Iran, were especially sought by buyers and B2B enthusiasts.

# With RKVY support, fish farming emerging as a lucrative livelihood for youth across J&K



SRINAGAR: Fish farming is emerging as a lucrative means of livelihood for young entrepreneurs across Jammu and Kashmir with the support of the Central Government's Rashtriya Kissan Vikas Yojna (RKVY).

The department of fisheries is propagating fish culture to give job opportunities to educated youth, besides the development of recreational fisheries as a method of income for those interested in pursuing aquarium fishing as a profession.

In Anantnag, three brothers started the fish farming business after getting help from the Department of Fisheries. Ashiq Hussain, owner of a trout fish farm said that they received a lot of help from the department in terms of construction, feed, and equipment. "My brothers and I completed our studies but were still unable to find jobs. We approached the department of fisheries and they taught us how to cultivate fish. We received subsidies under the Centre's Rashtriya Kissan Vikas Yojna (RKVY) for construction, feed, and equipment," Ashiq said whose unit employs six workers besides generating indirect employment for several others as well.

The avenue is particularly useful for those who already

have a good water supply and a small piece of land for the farm. The department has started this initiative to help people prosper in this industry and the scheme is most useful for people who have a good water supply and feasibility.

Jammu & Kashmir Government is also promoting fisheries culture by using modern technologies of fish farming such as the composite fish culture of Indian major carps and exotic carps.

Many national schemes for the promotion of the fishing trade are the National Welfare Scheme for Fishermen, PM's Package for the creation of employment opportunities, Fisheries Training and extension, Construction of low-cost houses, Group Accident Insurance Scheme for active Fishermen, RKVY for houseless fishermen, among others.

The administration is also promoting the sector by filling the natural cold-water streams with trout seeds to endorse sports fisheries across the Union territory.

Notably, Kashmir offers some of the greatest spring-fed and snow-fed trout fishing in the world, along with a number of freshwater lakes as well as pollution-free streams, and rivers with snow-capped peaks.

# Responsive, accountable, transparent governance system established across J&K

SRINAGAR: Jammu and Kashmir Government has made Jan Bhagidhari the main mantra towards making the dispensation more responsive, accountable, and transparent besides ensuring rapid growth and development across the Union Territory.

The J&K administration is earnestly working for the last two years to make the entire governance structure transparent and accessible to the public in a hassle-free manner.

To ensure social audit of development projects by the people, the Finance Department recently directed all the Drawing and Disbursing Officers (DDOs) to immediately update details of works in rural and urban areas on its Janbhagidari (empowerment) e-portal.

It also asked all Deputy Commissioners and Accounts Officers to update these details in respect of works taken under District Capex including that of DDC, BDC, and PRI grants.

Empowerment/Janbhagidari drive is a web-based initiative to bring transparency in the execution of works by enabling citizens to overview works or projects being implemented in their areas and become a partner in the process of development has been launched by the J&K government.

It is a one-stop interactive and user-friendly digital platform. It provides detailed insights to people into nature, status as well as a number of developmental works that are being executed in their areas. Works can be searched with respect to their location in each block or municipality, village, and district.

The idea is to make the entire project planning and implementation process open to the general public who will be the ultimate beneficiaries of the projects.

The information available on this one-stop platform can be accessed through [www.janbhagidari.jk.gov.in](http://www.janbhagidari.jk.gov.in) and can be utilized by the people for social audit and timely feedback or suggestions or registering their complaints for improving expenditure outcomes in the spirit of togetherness.

Similarly, J&K Government is empowering the citizens of J&K, particularly youngsters to avail of government services at the click of a button on an e-portal which can be accessed by logging into [eunnat.jk.gov.in](http://eunnat.jk.gov.in).

Marking a remarkable achievement in the digital journey of Jammu and Kashmir, e-Unnat provides a window for the government to get feedback from citizens on any subject related to service delivery and its quality for further improvement.

The platform is integrated with the Rapid Assessment System (RAS) which gives users an opportunity to give their feedback about their experience of using the service.

Further, the platform has been fully integrated with the national portal 'Meri Pehchan' for more fruitful access and availability. It has also been synchronised with Digi Locker, UMANG app, and SMS/e-Payment gateway for the overall comfort and ease of the users. It will usher in freedom from running to government offices and will provide strength to the dream of making JK fully digital.



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# J&K among top five States/UTs of country in terms of farm income

## UT Admin rejuvenating agriculture sector with a multi-pronged approach

SRINAGAR: J&K Administration took several measures to rejuvenate Agriculture and allied sectors by filling credit gaps, diversification, high-density plantation, building storage capacity, market linkages, and extension services.

The continuous deliberations among eminent agricultural scientists, policy planners, policymakers, academia, and farmers led to the formulation of a futuristic roadmap for rapid growth in agriculture and the allied sector.

Dairy, Livestock, Poultry, and Fisheries are becoming engines of high growth, and Government is doing massive efforts for creating awareness amongst the farmers to tap its tremendous potential and benefit.

In the last two years, the government has come out with a viable strategy to achieve the historic task of ensuring higher incomes for farmers.

J&K Government is taking steps to exploit untapped opportunities offered by horticulture and ensuring an end-to-end approach from plantation to post-harvest management and processing to marketing in order to increase the quality of production and exports.

Transformation in the agriculture and allied sectors is not just about productivity but also about food security, empowerment of farmers, and prosperity of small farming families. The Government is determined to translate the benefits of

growth into the financial security of farmers.

UT Government is providing as many benefits to the agriculture sector as available to those in the manufacturing sector, like easy access to credit, infrastructure, pre, and post-harvest facilities, covering risks & uncertainties, and various interventions and schemes for the benefit of farmers.

Notably, the UT of J&K is now among the top five States/UTs in terms of farm income with a monthly income of Rs 18,918 per farmer. A renewed thrust is also been given to organic farming to bring about a paradigm shift in agrarian policy, rural prosperity, and improving the incomes and the quality of life of the farmers.

## AC approves rehabilitation policy for 'children in street situation'

### Land transfer for different public purposes also okayed

Jammu: The Administrative Council (AC) which met here under the chairmanship of Lieutenant Governor Manoj Sinha, accorded approval to the Rehabilitation Policy for Children in Street Situation (CiSS) to safeguard these kids from different hazards, an official press release informed.

It said Rajeev Rai Bhatnagar, Advisor to the Lieutenant Governor, Dr. Arun Kumar Mehta, Chief Secretary, J&K attended the meeting.

As per the canons of the Juvenile Justice Act, Children in Street Situations (CiSS) fall under the category of children in need of care and protection. The Act further empowers the government to frame a policy for the rehabilitation of such children in distress.

Earlier the Social Welfare Department through MD, ICPS (now Mission Vatsalya) carried out an exercise for the identification of such CiSS and so far 687 such children have been identified.

As per the policy, Health, School Education, H&UDD, RDD, Home, Labour, and Employment departments have been assigned specific roles and responsibilities for ensuring proper implementation of the said policy in letter and spirit. The same would be monitored by a Committee headed by the Chief Secretary to review its implementation in the UT.

Further, the Social welfare Department shall be responsible for regular monitoring of the implementation of the policy to protect and safeguard the future of all such children found across the length and breadth of J&K.

The Administrative Council (AC) also approved proposals of different departments for transfer of land for various developmental projects.

According to an official press release, the AC approved the proposal for transferring Shamilat Deh (Mehfooz Kahcharie) land measuring 121 Kanal 11 Marla situated in village Plakh, Tehsil Basohli, District Kathua in favour of SKUAST Jammu for establishment of New Krishi Vigyan Kendra at Hill Region and in lieu transfers of State land measuring 122 Kanal 18 situated in village Jhanker for Kahcharie



purpose.

It shall provide opportunities to the farmers of the area by creating awareness to improve produce by employing various agricultural technologies.

The AC also transferred State land measuring six Kanal 12 Marla situated at village Makwal, Tehsil Mandal, District Jammu for the establishment of BOP namely "AMK", by Border Security Force (BSF) on the payment of transfer value as per the Stamp duty rates notified in the area. It also authorized the use of 135.57 Ha of land in Bahu Conservation Reserve for the establishment of small arms firing range (long range) under the J&K Forest (Conservation) Act, 1997, the press release informed.



# Back to Village

## B2V4, MTMP2 prove catalyst in the development of J&K

### Amplifies saturation of beneficiary-oriented schemes across UT

SRINAGAR: The successful conclusion of the My Town My Pride-(MTMP) and 'Back to Village-4 (B2V4) programme has proved as a catalyst in the development of the entire Jammu and Kashmir and has also amplified the saturation of different beneficiary-oriented schemes across J&K

During the B2V4 programme, as per official data, around 54 deliverables of 21 departments were saturated across the length and breadth of Jammu and Kashmir.

As per the official data, the programme has also been successful in providing self-employment opportunities to 21329 individuals. 277 cooperative societies were also registered in various fields like poultry, housing, transport, health, etc. In the agriculture sector, 14567 Soil Health Cards as well as 5914 Kissan Credit Cards were also issued

Labourers and migrant workers also benefited during B2V4 as 24179 beneficiaries were enrolled and 4063 e-Shram cards were generated. In the health sector, 95959 PMJAY-SEHAT Golden Cards were issued thereby giving health insurance coverage to 49526 families.

Similarly, Revenue Department has been successful in issuing 6.6 lakh Land Passbooks and during B2V4, 8.46 lakh persons were introduced to the Apki Zamin Apki Nigrani portal enabling them to access revenue records from the comfort of their homes.

The data of Back to Village also says that a lot has been achieved by the Social Welfare Department, by digitizing 5159 Disability Cards (UDID) and seeding 30231 Anganwadi beneficiaries. Moreover, 211 Divyang Camps were also organised by the department.

In addition, more than 1.55 lakh e-challans were issued by the Mining Department with a unique QR code integrated with an online payment system for the sale and purchase of minerals through a zero-manual interface.

A lot has been achieved in the last three years with the speedy implementation of the projects and government continues to invest in schemes to make rural J&K self-reliant and to increase incomes by creating more self-employment opportunities at the local level.

Similarly, with the 'My Town My Pride' public outreach programme, the government is putting people at

the heart of urban transformation & unlocking cities' full potential to drive growth, empower local governance, and ensure seamless delivery of services at the doorsteps.

The recently concluded MTMP 2.0 was a resounding success where a record number of 7.16 lac people participated in the programme across the UT, from 28th November 2022 to 6th December 2022. Special awareness camps were arranged by various departments involved in delivering public services like issuance of domicile certificates, widow/ old-age/ disability pensions, Aadhaar, water, and power connections, issuance of birth and death certificates, land revenue extracts, sewage and cleanliness services, etc at the venue of the programme itself and through a weeklong "Shahri Jan Abhiyan".

The 'My Town My Pride' public outreach programme lays special focus on Self-employment generation and skill development to empower youth. During MTMP Abhiyan, 25 youths from each ward were identified for self-employment assistance and skill training.

During MTMP 2.0, as per official data, around 2,740 Street vendor licenses, 1144 Kisan Credit Cards, 6251 Soil Health Cards, 38973 Golden cards, 40482 e-challans, 3402 e-Shram Cards, 53923 Passbooks, 4680 Disability Cards have been issued by the concerned Departments.

In addition, 2843 awareness camps were held for saturation of various schemes like PMAY(U), DAY-NULM (Deen Dayal Antodaya Yozana), Self Employment Programme (SEP), PM SVANIDHI (Atam Nirbhar Bharat) AMRUT 2.0 and Swachh Bharat Abhiyan (SBH-U), 1,33,524 Households covered under door-to-door awareness drive under the ban on single-use plastic besides 1,362 beneficiaries were covered under Grah Pravesh (PMAY-Urban).

Sports activities were also carried out in 80 towns during Jan Abhiyan and 140763 sports persons participated, 5002 individuals covered under the self-employment drive in the ULBs. 248 CSC camps organized in Corporations and ULBs, 2649 inheritance mutations done, 1743 Ladli Beti and 36556 Anganwadi beneficiaries seeded with Adhaar during Jan Abhiyan, 96 Divyang Camps held during Jan Abhiyan, 560 Senior Citizens clubs were got formed in various ULBs.

As part of this programme, more than 170 senior officers of the Government reached out to Urban Local Bodies in J&K, where they interacted and obtained feedback from the grassroots, so as to tailor the government efforts in improving the delivery of services specific to that area.

# Fresh Covid scare: IMA advises people to avoid public gatherings, international travel

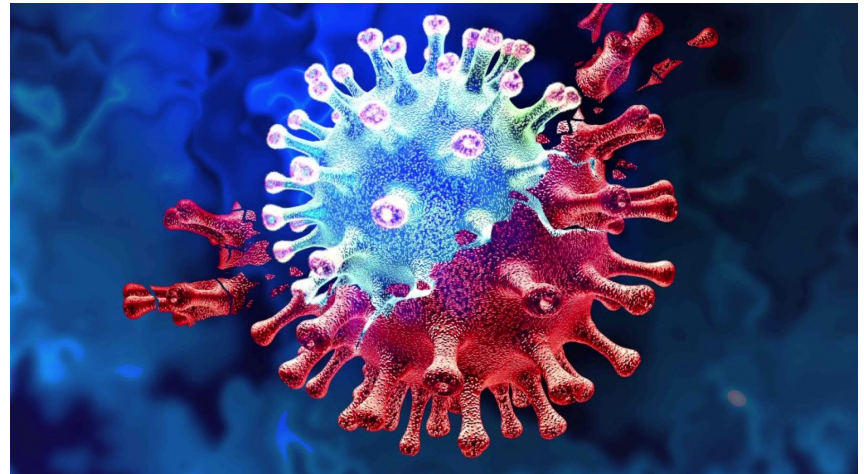
New Delhi: The Indian Medical Association (IMA) has advised people to avoid public gatherings such as wedding ceremonies, political or social meetings as well as international travel amid a rising number of COVID-19 cases in some countries, including China.

In an advisory issued on Thursday, the IMA also appealed to people to go for vaccination against the viral disease, including taking the precaution dose, and follow Covid-appropriate behaviour such as using masks at public places and following social-distancing norms.

According to reports, around 5.37 lakh fresh cases of the infection were reported in a 24-hour period recently from countries such as the United States, Japan, South Korea, France and Brazil, the IMA said.

“With the robust infrastructure in the public as well as the private sector, dedicated medical manpower, proactive leadership support from the government and availability of sufficient medicines and vaccines, India will be able to manage any eventualities as done in the past,” it said.

The doctors’ body also appealed to the government to upscale the preparedness for any such situation, as seen in 2021, by issuing necessary instructions to the ministries and departments concerned to make available emergency



medicines, oxygen supply and ambulance services.

The IMA has also issued an advisory to its state and local branches, asking them to take the necessary steps in case of an outbreak in their areas.

“As of now, the situation is not alarming and therefore, there is no need to panic. Prevention is better than cure,” the IMA said.

It also advised regular handwashing with soap or sanitiser and consulting doctors in case of symptoms such as fever, sore throat, cough and loose motion.

## J&K fully geared to tackle any Covid situation: Experts tell CS

### Genome sequencing facilities being created in both cities

JAMMU: In a meeting with health experts Chief Secretary, Dr Arun Kumar Mehta, was today assured that there is no need to panic in view of rising Covid-19 cases in neighboring countries as no surge have been reported so far in the UT.

The meeting was attended by the Divisional Commissioners; Secretary, Health; Director SKIMS; Principals of Medical Colleges and Heads of Medicine, and other experts from the Medical Colleges.

Dr Mehta enjoined upon all these health experts to take preemptive measures so that the administration is fully prepared to meet any contingency. He asked them to activate all the Covid testing facilities so that any person desiring to test finds the facility nearby. He impressed upon them to create ample awareness among the public so that no unnecessary scare is created among them.

The Chief Secretary also emphasized on assessing all the facilities afresh so that their operational readiness is checked. He asked them to take stock of medicines and other paraphernalia beforehand so that people are served better if the need arises. He asked the department to give booster doses to vulnerable groups like the elderly. He also directed them for encouraging people to observe the Covid appropriate behavior for the safety of one and all.

The Secretary Health informed the meeting that currently there is no bed occupancy related to covid in the health facilities of the UT. He made out that the testing capacity of J&K has been augmented by many folds. The new three COBAS 6800 machines are also being procured for enhancing the facilities further, he added.

It was also revealed that every sample of a positive person is sent for its genome analysis as per the GoI guidelines. It was apprised that the genome sequencing labs at both the cities of Jammu and Srinagar are being established shortly for better monitoring and evaluation here.

International travelers are also being monitored and tested randomly besides observing the advisories issued by the Health Ministry, AIIMS, and Indian Medical Association, as was divulged in the meeting.

Moreover, the health experts also gave their suggestions regarding the current scenario and preparedness of J&K UT. They informed that the virus is not so lethal this time although the spread may be faster. They advised people to only take precautions so that they keep themselves safe as well as others.

It was revealed that J&K has around 20000 isolation beds available including 717 ICU, 1320 Ventilators, and 5468 oxygen-supported beds. It has the capacity to generate 1,14,366 LPM of oxygen from its 154 plants. The UT also has 4 CBNAAT, 15 TRUENAT labs in its hospitals to generate tests more accurately and quickly, the meeting was informed.

# 9 J&K students participate in global asteroid search campaign as part of NASA project

Jammu: In the first, nine students of a private school in Kathua district participated in a global asteroid search campaign as part of NASA's citizen science project.

The campaign was organised by Delhi-based Homi Lab in association with the International Astronomical search collaboration (IASC) from October 21 to November 15, Homi Lab said in a press release here.

A spokesperson of the lab said this was the first time that a school from the Kathua district has participated in the NASA Campaign.

It said Shrunya, Abhay Pratap Singh, Divum Bharti, Rashi Sharma, Alyssa Sardhalia, Samar Pratap Singh Bhadwal, Mehul Sharma, Mrigan Kamouli Vaishisth and Pranaya Mahajan from Spring Dales English School Kathua participated in the Kalam Asteroid Search Campaign.

"As part of NASA's citizen science project that is conducted by Hardin Simmons University, USA, under this programme, IASC and Homi Lab deployed a unique platform that gave selected participants a once-in-a-lifetime opportunity to discover real near-Earth objects and Main Belt asteroids. Outreach and training support was extended by Kalam Centre, Delhi," the release said.

It said a total of 105 participants from nine countries were selected across the globe through a rigorous screening process and were later trained to analyse data and spot potential asteroids close to the earth.

"At the end of the campaign, young minds made path-breaking contributions to NASA's Near-Earth Object (NEO) Programme and discovered three preliminary asteroids. Preliminary discoveries are the first observations of asteroids found in the main belt located between the orbits of Mars and Jupiter which need further confirmation to go to provisional status," the release said.

It said this usually takes up to five years after which the asteroid can be officially catalogued by the Minor Planet Center, International Astronomical Union (IAU).

The release said selected participants were provided highly specialised training in order to operate the advanced astronomical software, Astrometrica.

This software is used to analyse images from the 'Pan Starrs' (The Panoramic Survey Telescope and Rapid Response System) telescope, located in Hawaii, USA. It uses a 1.8 m (60 inch) telescope to survey the sky to look for asteroids, comets, and Near-Earth Objects (NEO).

Founder and Chief Executive Officer, Homi Lab, Srijan Pal Singh, congratulated the students and said "these discoveries are crucial contributions to our knowledge of the cosmos around us.

"Knowing the asteroids around and mapping them is an important element in our bid to understand and monitor these travelling rocks from distant worlds around our planet," he said.

## PM-KUSUM scheme to reduce production cost, increase income of farmers in J&K

SRINAGAR: Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan Yojana (PM-KUSUM), a Central Government scheme will reduce the production cost of the crops and help in increasing the income of J&K farmers.

The scheme was launched by the Government of India to increase the income of farmers and provide sources for irrigation for the upgradation of the agricultural sector.

Jammu and Kashmir Government has launched various awareness programmes to apprise the farmers of various benefits and incentives being extended by the Union Ministry of New and Renewable Energy MNRE, under the PM KUSUM scheme, which is primarily meant to the uplift of the farmers.

Keeping in view the topography and irrigation challenges in Ramban district, the UT-level campaign was started from the district to provide maximum ben-

efit to farmers of the district from this beneficiary-oriented scheme. The scheme allows the farmers to install subsidized Solar Powered Pumps up to 10 H.P. capacity for irrigation purposes with a choice of AC/DC Surface and Submersible Pumps.

The PM KUSUM scheme has broadly two main components. Under component 'B', the Diesel Powered Pumps could be replaced by Solar Pumps and New pumps could also be installed in no-grid areas under decentralized application, whereas under Component 'C', Electrical Pumps could be replaced with Solar Powered Pumps by the farmers. Under both categories, the Ministry provides a subsidy of 50% on the cost of the pump, 30% of the cost is being provided by the Government of J&K and the beneficiary/farmer has to bear only 20% cost of the pump.

The scheme also allows the in-

stallation of community/cluster-based irrigation pumps up to 10HP capacity by Water User Associations.

Notably, an initial target of 500 Solar Pumps has been allocated to the Srinagar district, which could bring an investment of Rs 14 crore to the district.

The District Level Committees have also been constituted to overlook the smooth implementation of the PM-KUSUM Scheme in the UT.

It is pertinent to mention that Government constituted three Committees for the implementation of all three components of the PM-KUSUM Scheme and solarisation of the Agricultural and Horticulture sector in Jammu and Kashmir. In the Union Territory of Jammu and Kashmir, Jammu and Kashmir Energy Development Agency (JAKEDA) has planned to install 5,000 Solar Power Pumps under the PM-KUSUM scheme in J&K in the first phase.



# J&K achieves remarkable development from grassroots level

SRINAGAR: J&K is the first among many states and UTs in achieving Aspirational Districts, Aspirational Towns, Aspirational Blocks, and Aspirational Panchayats which has led to remarkable development across J&K from the grassroots level.

Apart from this, J&K is the only one in the entire country to tread this developmental path and establish Panchayat Development Index, Block Development Index, and City Development Index in parallel to these to achieve the pace of rapid development and growth.

More so, the J&K Administration has also created a third element in the shape of 1250 Deliverables through which achievement in the implementation of different government schemes and welfare measures is fast-tracked and checked.

Notably, Planning Development & Monitoring Department recently organized a UT-wide workshop on Sustainable Development Goals for Jammu Kashmir in collaboration with NITI Aayog, the Ministry of Statistics and Programme Implementation (MoSPI), and the United Nations Development Programme (UNDP).

Chief Secretary, Dr Arun Kumar Mehta, who spoke on the occasion, called the Sustainable Development Goals (SDGs) a very powerful tool to measure development in general and sustainable development in particular, and added that the governments have to measure development to improve further.

“If we do not measure development, we do not improve. If we do not measure with consistency, it is just anecdotal. The SDG tool will be a very powerful tool to measure development in general and sustainable develop-

ment in particular,” he said and directed the departments to utilize the SDG mechanism to chart a plan till 2030.

The Sustainable Development Goals or the 2030 Agenda on Sustainable Development is a global consensus signed by India and 190 plus countries of the world in 2015.

It includes 17 Goals and 169 global targets, which cut across social, economic, and environmental dimensions.

In India, NITI Aayog, in close coordination with MoSPI, monitors the progress on the global goals at the national as well as at the level of States and Union Territories.

The SDGs have brought the focus on development-related outcomes and not just financial expenditure and physical progress.

An official said that the UT of Jammu and Kashmir and NITI Aayog, in technical partnership with UNDP, have entered into an agreement to establish a Sustainable Development Goals Coordination Centre (SDGCC) at the Planning, Development & Monitoring Department.

The partnership will seek to strengthen the monitoring system of J&K, derive actionable insights from data analytics, promote gap-based targeting and build capacities.

It is pertinent to mention that J&K has been a frontrunner UT scoring better than many States/UTs in the majority of sectors like health, agriculture production, education, renewable energy, providing civic amenities, enhancing forest cover, and ensuring gender equality, especially during the last two years.

# Over 15,000 posts filled in govt departments in 3 years: SSB chairman

Jammu: More than 15,000 vacancies in various government departments were filled in three years while the selection process for 8,000 more was in progress, Jammu and Kashmir Services Selection Board (SSB) chairman Rajesh Sharma said.

He said court litigation by aggrieved candidates is one of the major factors for the delay in the recruitment process.

“Against last year’s figure of 9,300, this year the SSB filled 4500 posts in various government departments and 3,400 among them are class-IV posts. A total of 1,500 posts were filled up in the year 2020,” Sharma said.

He said the candidates selected for the class-IV posts under phase two were handed over appointment letters at special ‘Rozgar melas’ presided by Lt Governor Manoj Sinha in Srinagar and Chief Secretary Arun K Mehta in Jammu recently.

Under the first phase, more than 5,000 deserving candidates were given appointment letters last year after the government mandated the Jammu and Kashmir SSB to make recommendations for class-IV recruitments in all departments.

The SSB chairman said a list of 1,600 junior assistants is ready with the board but it is withheld due to a litigation pending in the tribunal. “Once the judgement is delivered, the result will be declared.”

Sharma, who took over as Jammu and Kashmir Services Selection Board chairman in May and oversaw its overhauling following a scam, said almost 8,000 more posts in different departments are available for recruitment.

In July, Jammu and Kashmir administration headed by Manoj Sinha cancelled exams for recruitment of police sub-inspectors, junior engineers and finance account assistants following allegations of paper leaks and malpractices. The CBI, which is investigating the

sub-inspector recruitment scam, filed a charge-sheet on November 12 against 24 arrested persons, including a BSF commandant.

“Work to fill up 1,400 vacant posts in the health and medical education department is likely to be completed very soon. Another 1,150 posts of junior engineers were advertised, for which 15,000 applications have been received,” Sharma said.

He said 1,500 more posts have come up for advertisement. “There are certain doubts about the recruitment rules. Once these are cleared in consultation with the departments concerned, necessary steps will be taken to fill up the vacancies.”

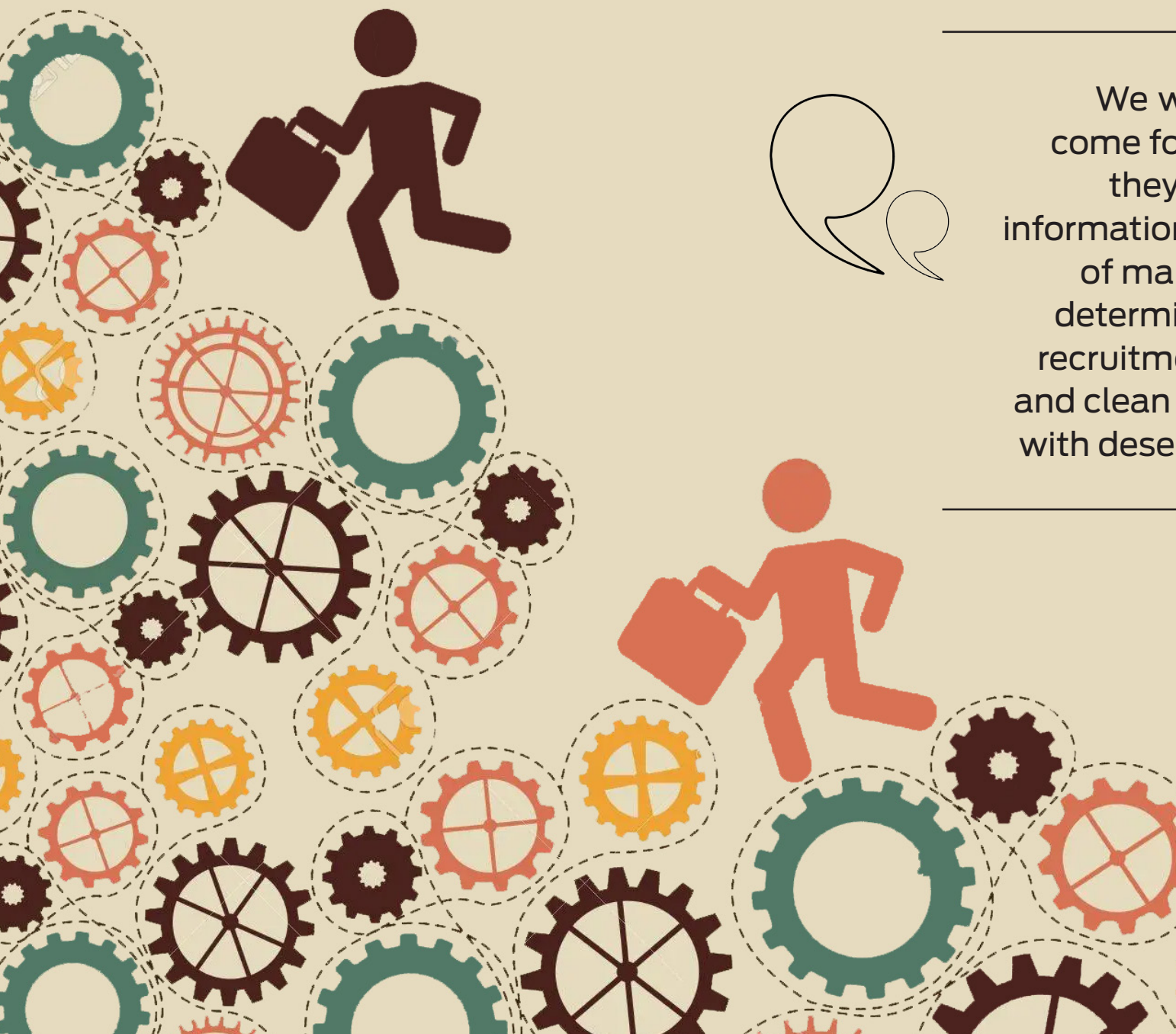
“There were some unforeseen events like the outbreak of COVID-19 (in 2020) and exam cancellation. But the major factor for the slow pace of the recruitment process is the litigation by the aggrieved candidates,” Sharma said.

Referring to various steps taken by the board, including third-party audit and installing low-frequency jammers, the SSB chairman said all loopholes have been plugged, ensuring that selections are made in a fair manner and without any favour.

“The Lt Governor has made it clear time and again that the process for recruitment in government departments would be transparent with zero tolerance to any corrupt practices,” he said.

Seeking the support of job aspirants, the officer said anyone with any complaint should directly approach the SSB and seek clarification or raise their concerns.

“We want students to come forward whenever they get any credible information about any type of malpractice. We are determined to make the recruitment process neat and clean to ensure justice with deserving candidates,” he said.



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We want students to come forward whenever they get any credible information about any type of malpractice. We are determined to make the recruitment process neat and clean to ensure justice with deserving candidates

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## LG lays foundation stone of Satellite Township & Housing Colony at Srinagar

**‘The initiative of SDA is aimed to decongest city; meet the needs of affordable homes for growing population’**

SRINAGAR: Lieutenant Governor Manoj Sinha today laid the foundation stone of Srinagar Development Authority’s Satellite Township at Rakh Gund Aksha & a Housing Colony at Bemina, Srinagar.

Congratulating the SDA officials for developing first of its kind satellite township in the Kashmir division, the Lt Governor said that the new initiative is aimed to decongest the city and to meet the need for affordable homes for a growing population.

The housing colony ‘Shehjar Heights’ is a symbol of the aspiration of the middle class. The two projects will not only provide quality and valuable space for families but also become the driver of economic development and unlock the potential of local economies, he added.

The Lt Governor emphasized on accelerating the speed and scale of the development to meet the requirements of the increasing population. He directed the H&UDD to conduct periodic reviews of the projects to ensure that these projects are completed within the timeframe.

The township shall be self-contained with building infrastructure for businesses, offices, commercial & institutional buildings, hotels, and other facilities designed to make living and working comfortable, added the Lt Governor.

It is pertinent to mention that a Medicity and a new High Court Complex are coming up adjacent to the township which will make the whole area another bustling centre of activity in the vicinity of Srinagar. The Township will also have clusters of planned housing with neighbourhood level health and education facilities. “Shehjar Heights” Housing Colony at Bemina will have a peripheral road network with pavements, a clubhouse with a swimming pool and gymnasium, a community hall, shopping mall.

Highlighting the efforts of the government to rejuvenate the urban landscape in the UT, the Lt Governor said, the cities and towns of J&K are experiencing transformational urbanism that has been achieved through excellence in infrastructure planning and execution and stimulated local development.

The ongoing transformation in Srinagar, Jammu, and

their neighbouring towns is the harbinger of sustainable development, the Lt Governor said.

Observing that Housing is the most important component of a city’s development and also defines the culture of that city, the Lt Governor stressed that the infrastructure being developed must reflect our cities’ aesthetic and cultural values.

Satellite townships & housing colonies will accelerate economic activities in J&K, supplement our efforts to overcome challenges of urbanization, and provide better housing facilities to the people. It will also generate large-scale skilled & unskilled employment, he added.

Seamless service delivery, housing, and infrastructure development as per people’s needs should be a major component of the master plan. We also need to change our approach and special attention should be paid to fulfilling the needs of the citizens living in towns, the Lt Governor noted.

The Lt Governor also called upon the elected public representatives and common citizens to play their important role in the successful conduct of G20 presidency events. He also sought suggestions from them to make the visit of delegates and people coming from across the world memorable.

Junaid Azim Mattu, Mayor SMC, and Dr Arun Kumar Mehta, Chief Secretary also spoke on the occasion and underscored the need to develop satellite townships and housing colonies to meet the growing housing requirements of the urban population.

Dheeraj Gupta, Principal Secretary to the Government, Housing & Urban Development Department, briefed on the newly launched housing projects.

Aftab Malik, DDC Chairperson Srinagar; Pandurang K Pole, Divisional Commissioner Kashmir; Mohammad Aijaz, Deputy Commissioner Srinagar; Athar Aamir Khan, Commissioner SMC; Dr Haris Ahmad Handoo, VC Srinagar Development Authority and other senior officers from Banks, Police, and Civil Administration were also present on the occasion at Kashmir Convention Centre.





# Through Mission Youth, Govt drive socio-economic empowerment among JK youth

## Over 30k youth provided direct livelihood means during 2021-22

SRINAGAR: J&K Government is laying special thrust with Mission Youth programme on skilling & self-employment of youth with targeted schemes to drive a socio-economic transformation.

Government has instructed for impact assessment of initiatives and called upon stakeholders for exploring all avenues for enhanced corporate engagement in Youth empowerment and skilling programmes/schemes.

According to officials more than 30,000 youth, including more than 12,000 girls, have been provided with direct livelihood means during the year 2021-22.

Mission Youth has also partnered with reputed institutions/organizations of the country including BSE Institute, ICICI Foundation, Ashok Leyland, Wipro etc. with an aim to facilitate skilling of youth in high employability potential sectors like BFSI, Robotics, Artificial intelligence, etc. and more than 10,000 young boys and girls were provided with market-driven skill development trainings during 2021-22.

Highlighting the achievements of Mission youth, the CEO informed that under Mumkin scheme, during FY 2021-22, 3651 vehicles were provided to youth for self-employment against the target of 2022 vehicles.

Under Tajeswini, about 2443 Young girls were provided assistance under the program during FY 2021-22 against the target of 2022.

More than 11725 youth, including 5237 girls were provided with customized market driven trainings. 910 Candidates, including

251 Girls, are being provided with necessary training to qualify the recruitment process for joining Armed Forces as Agni Veers.

Under Parvaaz Scheme, coaching of youth is being sponsored by Mission Youth in reputed institutions. Coaching for civil services and NEET JEE is provided under this scheme

Pertinently, Mission Youth is an ambitious programme of UT administration aimed to positively engage youth in socio-economic development of J&K through a multi-pronged strategy involving all necessary systematic interventions particularly in the areas of Skill Development, Livelihood generation, Education, Recreation and Sports.

The thrust areas under Mission Youth is Targeted implementation of existent Livelihood Generation Programmes; Establishment of Residential Coaching Institutions for Competitive Examinations & professional Courses; Establishment & Operationalization of District Youth Centers in all 20 Districts of J&K; Education, Career Counseling & Market-driven Skill Development Programmes; Recreation, Social Engagement & Sports; Youth Innovation Promotion Programmes.

Mission Youth is also working on creating a database of all unemployed youth along with their bio-data so as to help them in finding decent jobs under this program as per their skill set and core capabilities. To sum up it would be apt to say that Mission Youth has transformed the youth development scenario in J&K in a remarkable manner.





## **JKEDI striving to create a sustainable entrepreneurial ecosystem in J&K**

Srinagar: Jammu and Kashmir Entrepreneurship Development Institute (JKEDI) has had an eventful year in 2022, from going back to classroom Entrepreneurship Development Programmes to reaching out to aspiring entrepreneurs in remote areas of the Union Territory of Jammu and Kashmir. The Institute was inspired by the stories of passionate youth who are tomorrow's change makers and champions.

It was on International Women's day that the Institute started classroom training programs for aspiring women entrepreneurs across the UT of J&K. These young female change makers were sponsored under the Tejaswini Self Employment Scheme of Mission Youth, Government of J&K. The Institute has trained and provided business development services to more than 5000 youth this year, each one of them leaving the classroom with ideas and solutions to tackle the problems of our society. Although they are planning to start a small business, their endeavor will help save society from unemployment's cruel grip.

The Institute implements the term loan scheme of the National Minorities Development & Finance Corporation (NMDFC), Ministry of Minority Affairs, Government of India. The growth story of the scheme till now has created a remarkable impact on the far-flung areas of the UT and helped low-income groups in minority populations to become self-reliant and financially independent. Till now the Institute has successfully financed 6003 beneficiaries under this scheme with a total project cost of more than 240 crores.

The Institute organized a number of workshops and entrepreneurship orientation programs. It started with an awareness workshop on Intellectual Property Rights (IPR) organized in collaboration with the Office of the Controller General of Patents Designs and Trademarks, Department for Promotion of Industry and International Trade(DPIIT), Ministry of Commerce, Government of India. The Institute also conducted various entrepreneurship orientation programs for the school and college-going students in every nook and corner of all the districts of J&K.

To promote entrepreneurship and innovation in the UT, Baba Ghulam Shah Badshah University, Rajouri signed a Memorandum of Understanding (MoU) with JKEDI this year. The partnership will benefit all the stakeholders, especially the students from diverse regions of J&K. Google Developers Group, this year, organized a first-ever 'DevFest' at Jammu in collaboration with the Institute. A number of technology speakers from all over the country participated in the event and provided a platform for local developers and students for related discussions.

The employees of the Institute also participated in flagship developmental programs of the J&K Government with full fervor

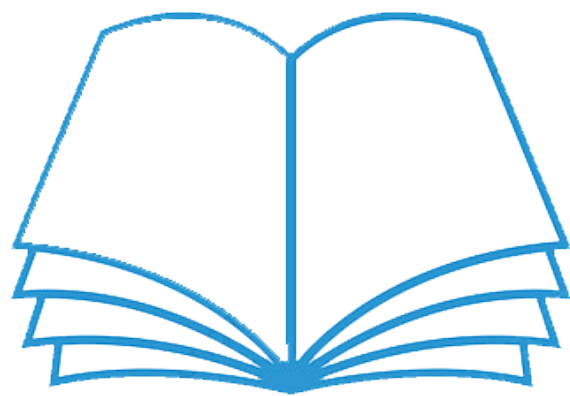
this year. Back to Village (B2V4) and My Town My Pride programs need special mention. The Director of the Institute, Aijaz Ahmad Bhat himself led the campaign in Shadab Karewa, a remote village in the Shopian district. This year the outreach programs of the Institute also saw a fillip. The journey from Covid-19 restrictions to organizing massive Entrepreneurship Awareness Programmes (EAPs) in all the districts of the UT this year has been inspiring. Far Flung and tribal areas of the UT were also covered and senior officers including the Director of the Institute participated in these programs. The Institute has organized 146 EAPs and sensitized almost 11000 youth.

The district offices of the Institute were activated and dedicated counseling control rooms and startup cells were set up at every district centre so the youth can avail the services of the Institute. Youth can directly visit these centers for information and facilitation. In addition to this, they can email and post queries on Institute's official social media outlets.

The Institute is the nodal agency for implementing the Start-up Policy of the Government. This year saw a series of workshops and programs under this policy. The Institute is also reviewing and formulating new operating guidelines for this scheme, which will encourage new start-ups in J&K. The UT of J&K has been striving to create a vibrant ecosystem for sustainable startups that work on exponential technologies, developing solutions that address the problems of society at large. A total of 89 startups are registered with the Institute. There are a number of facilities and incentives available for new startups at the Institute under this policy.

The Institute believes that sowing seeds of entrepreneurship at the school level is very essential. To make this a reality in near future, the institute is underway is developing a curriculum and syllabus for Entrepreneurship Training Courses for students of Higher Secondary schools across the UT. Steps are being taken to engage in academic collaborations with other universities and Institutes of national repute to start industry-relevant courses for the students of the UT.

With JKEDI's 360-degree support, it has created just the kind of opportunity for the growth of innovation, investment, and entrepreneurship that the UT of J&K requires. The Institute, in the coming year, is thriving to make J&K one of the optimal places to start a business in the country and create a sustainable entrepreneurship ecosystem and infrastructure. The youth can reach the counseling control rooms at these numbers: Kashmir (01933-22266/67), and Jammu (01923-222416). The dedicated startup helpline can be reached at 9419216208 for Jammu and 8825014846 for Kashmir. Besides a dedicated email address (jkedipublic@gmail.com) of the Institute is also open to the youth.



# **JKPI Publications**

# LOCATING CHILD LABOR IN THE CARPET INDUSTRY OF JAMMU & KASHMIR



**NEHA AGGARWAL**

**K**ashmir handicrafts have commanded the admiration of the world for centuries because of their exquisite craftsmanship, captivating colors, and designs. The arts and crafts of Kashmir carry the image of the natural topography of the beautiful valley and the efficiency of its people to every nook and cranny of the globe. The Kashmir handicrafts particularly the carpet industry is economically very significant. Today, the carpet trade accounts for more than half of the total value of the valley’s handicraft exports. It is estimated that around 100,000 people are currently employed in the carpet industry, the vast majority of whom are from rural areas. The carpet industry employs the most children, and children make up a significant portion of the carpet weaving workforce.

## Child labor trends in the carpet industry of J&K

According to an estimate based on the 1981 census, there are 1.5 million children working in the Kashmir carpet industry. According to Khatri, K. (1983), approximately 80,000 to one lakh children aged 6 to 14 were employed in Kashmir’s carpet weaving industry. Another study by Sudesh Nangia (UNICEF 1988) argued that 25% of the carpet weaving industry’s workforce is under the age of fifteen, and nearly a third of the total workforce is under the age of eight. A survey conducted by the Government of Jammu and Kashmir (1993) in 302 different areas of all the districts of Kashmir valley where the total number of child workers surveyed in surveyed areas is 11,281 revealed that 91.55% are engaged in various handicraft activities. Carpet weaving accounts for nearly 92.83% of the total child workforce in the handicraft sector.

Census 2011 estimates that 10.1 million children (3.9% of the total child population) are working either as “main workers” or as “marginal workers”. The 2011 census counted 250103 child laborers in the state of Jammu and Kashmir. The report titled ‘State of child workers in India: Mapping trends’ published in 2016 also presents a very grim situation. Table 1.1 underneath shows the magnitude and incidence of child workers in J&K whereas table 1.2 shows the district-wise magnitude and incidence of child workers.

Table 1.1 Magnitude and incidence of child workers in J&K

State/UT Name	Magnitude			Incidence		
	Rural	Urban	Total	Rural	Urban	Total
Jammu & Kashmir	92,355	22,568	114,923	4.2%	3.6%	4.1%

Source: Report titled *State of Child workers in India: Mapping Trends*

Table 1.2 Magnitude and incidence of child workers in J&K: Districts

State/UT Name	District Name	Magnitude			Incidence		
		Rural	Urban	Total	Rural	Urban	Total
J&K	Kupwara	6,443	1,351	7,794	3.0%	4.6%	3.2%
J&K	Badgam	4,989	591	5,580	2.7%	3.0%	2.8%
J&K	Leh(Ladakh)	800	70	870	5.8%	1.3%	4.6%
J&K	Kargil	1,257	30	1,287	4.7%	1.2%	4.4%
J&K	Punch	3,752	106	3,858	3.4%	1.4%	3.2%
J&K	Rajouri	17,506	298	17,804	12.0%	3.9%	11.6%
J&K	Kathua	3,914	222	4,136	3.4%	1.4%	3.2%
J&K	Baramula	5,556	1,178	6,734	2.8%	3.7%	2.9%
J&K	Bandipore	5,397	625	6,022	6.6%	4.5%	6.3%
J&K	Srinagar	126	9,340	9,466	3.5%	4.3%	4.3%
J&K	Ganderbal	2,794	347	3,141	4.4%	3.1%	4.2%
J&K	Pulwama	3,047	685	3,732	3.1%	4.8%	3.4%
J&K	Shupiyan	2,170	141	2,311	3.7%	5.9%	3.8%
J&K	Anantnag	9,747	2,827	12,574	4.6%	4.4%	4.6%
J&K	Kulgam	2,936	376	3,312	3.7%	2.3%	3.4%
J&K	Doda	2,895	53	2,948	3.1%	0.8%	2.9%
J&K	Ramban	2,208	6	2,214	3.1%	0.3%	3.0%
J&K	Kishtwar	1,676	21	1,697	3.0%	0.8%	2.9%
J&K	Udhampur	6,087	427	6,514	5.8%	2.5%	5.3%
J&K	Reasi	6,022	115	6,137	8.1%	2.4%	7.7%
J&K	Jammu	2,510	3,671	6,181	1.7%	3.1%	2.3%
J&K	Samba	523	88	611	1.0%	1.0%	1.0%

Source: Report titled *State of Child workers in India: Mapping Trends*

A report titled “How Far is India from Complete Elimination of Child Labour as per Sustainable Development Goal (SDG) 8.7,” published by the New Delhi-based Kailash Satyarthi Children’s Foundation in 2020 predicted that J&K will have 64.26 thousand projected child labor population in the 5-14 years age group by 2025. The foundation ranked J&K third in terms of child labor, which gives a good indication of the prevailing bleak situation. According to the report, UT is likely to maintain its third-place ranking in 2025 based on the projected number of children working as laborers.

## Menace of child labor: Causes and consequences

It is confirmed from the above studies that the problem of child labor as a whole as well as in the carpet industry has assumed monstrous dimensions. Every stage of the carpet-making process involves children. At the raw material stage, they are associated with the production of thread balls. They are primarily employed in the weaving process, which is the most strenuous and time-consuming of all the operations involved in carpet production. Children are preferred because they are hardworking, easily available, easily disciplinable, and occupy less sitting space than an adult. Employers believe that children have flexible muscles and their nimble fingers help in the fine task of carpet weaving. Also, the carpet industry is labor-intensive, the entrepreneurs try to reduce labor costs and one of the ways to do this is to employ children on very meager wages. As per a research study, nearly 18% of children in urban areas and 14% in rural areas receive very low wages (₹1-4) per day. More than 70% of the children are being paid between five and twelve rupees per day. Another study conducted in 2012 reveals that the monthly

earnings of child laborers in the carpet industry were ₹500.

Child labor in the carpet industry has assumed the significance of a “necessary evil”. According to a survey, almost all child weavers (96%) mentioned poverty as a major cause that drives them to seek some extra income. They believe that in absolute poverty conditions, child labor would at least guard families against starvation. Apart from being poor, many of the children have been forced into economic activity because they have lost one or both of their parents at a little age. Thus, the engagement of children in a way has evolved from an act of ‘exploitation’ to a ‘compulsion,’ with a working child now presuming the status of a serious bread-earner for the family.

The carpet industry is primarily a home-based industry. Carpet looms are established in homes. It becomes easy for families to engage their own children in addition to other children they may hire in carpet weaving. Thus, placing these looms in the premises of their homes and in their own communities facilitates the labor participation of children. The traditional system of employing children in family occupations has also been a contributing factor. A significant portion of parents wants their children to become proficient in weaving during their childhood so that they could buy their own looms and start independent work at home in the future. The low literacy among parents also affects the future of children. In rural areas with educational facilities, parents of poor, illiterate, and traditional families send their children to carpet-weaving centers, because to them, education seems to be of no use. Growing educated unemployment has also inculcated a notion among the majority of parents that there is no reinforcement after completion of education and as such, they are tempted to direct their children to various trades which yield them immediate results.

Employment of children in the carpet weaving industry has far-reaching socio-economic repercussions. Children in these factories work in small, dark, and crowded rooms away from sunshine and fresh air under poor lighting, ill ventilation, and unhygienic conditions. They are exposed to different types of pollutants like fibers, dust, dyes, etc. and as a result, the child workers are subjected to asthma and primary tuberculosis. The hunched-up position in which they work stunts their growth. The majority of children suffer from headaches, poor vision, backache, and abdominal pain. The worst affected is the education of the child. Very few children manage their studies and work simultaneously. Deprivation of education results in an irreparable loss not only for these children but also for their parents and for society as a whole. Karl Marx once said that “the result of buying the children and young persons of the underage by the capitalist results in physical deterioration and moral degradation.” His remark is evident in a field study which reveals that in around 80% of cases, the work life in the carpet industry results in moral degradation. Children pick up many unhealthy habits like smoking, gambling, snatching, pickpocketing, etc. The

productivity of these victims in later life is lessened, the versatility and adaptability to different occupational conditions are curbed and their mental faculties are not properly developed.

#### **Recommendations:**

The prominence of this pernicious practice calls for urgent policy intervention. Education is the mother of all positive changes. Therefore, the education system must be made more accessible by rationalizing the admission procedures and improving the quality of teachers, books, curricula, recreational facilities, etc., to attract poor children. Child labor can be reduced if parents are compensated equal to their children’s earnings plus their educational costs. Poverty elimination programs such as NREP, IRDP, DPAP, TRYSEM, GRY, etc. should be effectively worked out in rural areas. Self-employment schemes should be intensified. While drafting policies, prioritizing areas with a high concentration of child laborers is the need of the hour. In addition to poverty elimination programs, the minimum wage should be raised so that children can continue their schooling.

Periodic community sensitization programs on the negative consequences of child labor, including the impact on the health and future of the children, the family’s economic situation, and the negative impact on the community and society at large, should be conducted. Vigorous enforcement of existing child labor legislation supplemented with practical social measures such as organizing facilities for education, health, nutrition, and skill development among working children, and finally monitoring the progress of program implementation would go a long way toward combating child labor in the valley. Civil society partners must be trained to assist in identifying and monitoring units where child labor is used, as well as to assist the law enforcement machinery by appearing as independent witnesses in cases filed under child labor laws, thereby playing a pivotal role in achieving convictions of offenders.

#### **Conclusion**

The magnitude of the problem of child labor in the carpet industry is severe. From the foregone study, it can be deduced that child labor is a complex problem that stems from low socio-economic status. Furthermore, the traditional mindset and accelerating educated unemployment in the region also contribute to the persistence of child labor. The working conditions of these tiny hearts in terms of hygiene are horrible. They are exploited in the most dehumanizing way. It is a multifaceted problem that eventually impairs the personality and creativity of future generations. Given the complexity of the problem, a multifarious, multidimensional, involving multiple stakeholders and social partners, with a coordinated and inter-sectoral approach is required. J&K must act fast to prevent child labor from becoming a lasting hurdle in the achievement of SDG 8.7.



# Educational Status of Gujjars and Bakarwals in J&K



**ZAHOOR AHMAD DAR**

Education is conceived to be a medium to serve a purposeful end. From modifying an individual or group's behaviors to being an agent of social change and eventually helping a person attain upward mobility, education has come to embody different connotative meanings. Be it any society or any group, knowledge dissemination takes place in some form. It could be formal or informal. The history of education is also indicative of the fact that it has been non-linear across time and space, progressing through different forms and phases.

Normative education is deemed to ensure inclusivity and egalitarianism in society. At an empirical level, does it challenge social and economic inhibitions that breed inequalities or render the vulnerable groups further to the brink of marginalization is debatable. However, being marginalized for decades does not mean that vulnerable communities have stopped aspiring to defy the odds and accomplish great feats. Rehana Bashir is the epitome of aspiration and empowerment in this regard. Hailing from Meander area of Poonch District in Jammu and Kashmir, she qualified civil services examination (2018) with a 187 rank and became the first female Gujjar from Jammu and Kashmir to qualify for Indian Administrative Services (IAS). But unfortunately, there are many aspiring youths who visualize an illustrious life like her but are unable to crystallize it into a reality due to the inaccessibility of education facilities. The policies of successive governments with regard to the alleviation and empowerment of the Gujjars and Bakarwals communities face a plethora of hurdles.

This article, thus, analyses the policies and programs of the government of Jammu and Kashmir (J&K) with regard to the educational upliftment of Gujjars and Bakarwals. A closer statistical investigation enables us to understand the current educational issues faced by these communities and how to address them properly.

## Educational Status of Gujjar and Bakarwals in J&K

Jammu and Kashmir recorded a population of 1,25,41,302 with males 66,40,662 and 59,00,640 females as per 2011 census figures. The scheduled tribe population was 14,93,299 which accounted for 11.9 % of the state's total population. The erstwhile state's Gujjar population figured at approximately 9.8 lakh, while the Bakarwals numbered 1.1 lakh. Table 1 below shows the district wise population distribution of scheduled tribes in Jammu and Kashmir. According to a Centre for Policy Studies analysis of 2011 Census data, the population of Gujjars and Bakarwals grew by 33% over the previous decade, much faster than the state's average growth of 23.6%. As nomadic tribes, they are spread over large swathes of land, encompassing Pir Panjal Range, Hindukush to Ladakh located in the Himalayan mountains of South Asia. They are goat herders and shepherds. They seasonally migrate from one place to another with their herds. Due to their seasonal migration, their education is heavily affected.

The literacy rate of the scheduled Tribe is 50.6%, which is much lower than the national average literacy rate. It must be noted that Gujjars & Bakarwals have abysmally low literacy rates. However, the literacy rate of ten other communities is high vis-a-vis Gujjars and

Bakarwals, which compels the literacy rate of the ST community

**Table 1. Showing Percentage of tribal population of Jammu and Kashmir.**

Tribe	Population	Percentage of tribal population	Tribe	Population	Percentage of tribal population
Gujjar	980,654	65.67 %	Purigpa	39,101	2.61 %
Bakarwal	113,198	7.58 %	Sippi	5,966	0.39 %
Bot, Boto	91,495	6.12 %	Changpa	2,661	0.17 %
Balti	51,918	3.47 %	Mon	828	0.05 %
Brokpa, Drokpa, Dard, Shin	48,439	3.24 %	Garra	504	0.03 %
Gaddi	46,489	3.11 %	Beda	420	0.02 %

Source: Census, 2011. Note: The population figures of all divisions of the erstwhile J&K state (now Union Territory) including Ladakh (Now a separate Union Territory) are included.

to stand at 50.6%. The male literacy rate is 60.6% and the female literacy rate is 39.7%. (Census report 2011).

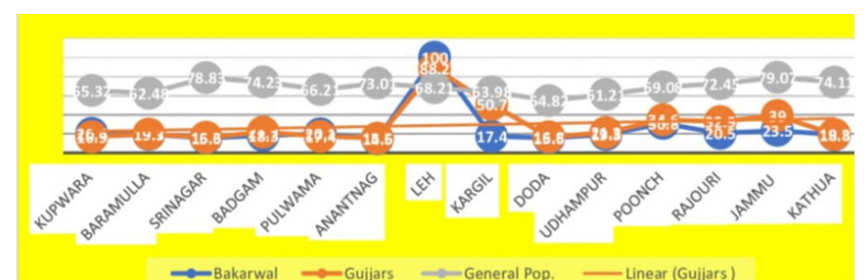
Since the article concerns the educational marginalization of Gujjars and Bakarwals, therefore, table 2 presents the district-wise distribution of literacy among Gujjar and Bakarwals. It shows that high literacy is found among the Bakarwals population in the districts of Poonch, Rajouri, and Jammu which has 30.8%, 20.5%, and 23.5% of education, respectively. Whereas among the Gujjars Jammu has 39.00%, Poonch 34.60%, and Rajouri 32.94% literate population in Jammu division. In order to comprehend the educational backwardness of these communities, the trend line of literacy rate among Gujjars and Bakarwals and the General population in J&K is in figure 1.

**Table 2: Literacy rate among Gujjars-Bakarwals and the general population in J&K (in %)**

Districts	Total Lit. Pop.	Bakarwal	Gujjars	General Pop.
Kupwara	232,557	20.4	16.9	65.32
Baramulla	447,075	19.3	19.7	62.48
Srinagar	641,267	15.6	16.3	78.83
Badgam	226,167	18.3	21.7	74.23
Pulwama	281,518	20.1	17.4	66.21
Anantnag	463,197	14.6	15.5	73.01
Leh	68,278	100.0	88.2	68.21
Kargil	60,803	17.4	50.7	63.98
Doda	274,425	15.6	16.8	54.82
Udhampur	343,429	19.3	21.3	61.21
Poonch	156,398	30.8	34.6	69.08
Rajouri	234,228	20.5	32.9	72.45
Jammu	1,070,574	23.5	39.0	79.07
Kathua	307,370	18.8	19.3	74.11
Total	48,07,286	22.51	31.65	71.23

Source: Census of India, 2011

**Figure 1: Trend line of literacy rate among Gujjars and Bakarwals population in J&K**



In order to facilitate inclusivity and accessibility of education, there is always a need for an institutional mechanism to administer its functioning. Therefore, with this intention, Jammu and Kashmir government established a tribal welfare department in July 2008. In furtherance of the objective and following in the footsteps of the Ministry of Tribal Affairs under the central government, the state government released the notification to establish the Directorate of Tribal Welfare. For the first time, the Department of Tribal Affairs initiated an exercise to assess the state of education, viz tribal students, literacy levels prevalent among the tribal population, and the development of a comprehensive education plan to address specific educational needs based on such surveys, in addition to the core efforts being made by the Education departments.

The first Transhumant (migratory) population survey, conducted in 2021 yielded dispiriting results in education. It recorded a mere 16.74% literacy rate among a mammoth population of 6.12 Lakh, far below the national literacy rate of 74% even in the Census 2011, which pegged the literacy rate among STs at 59%. The male literacy rate was recorded as 19.38% while the female literacy rate was at 14.08%.

The status of education and literacy in villages also presented a discouraging picture. In 2021, a survey of more than 365 villages with tribal populations of 500 or more, accounting for more than 50% of the total population, revealed a literacy rate of 29%, with a male literacy rate of 37% and the female literacy rate of 23%.

### **Challenges in the path of Tribal Education**

The dream of a glorious future for Gujjars and Bakarwals has not really seen the light of day in the context of their education. To investigate the possible causes of their educational backwardness, an array of research scholars and policy practitioners have undertaken a multitude of analytical studies on the status of education and literacy among the Gujjars and Bakarwals communities. A study by K. Suri & P. Raina titled, “Study of the Educational status of tribal Bakarwal” argues that the Bakarwal tribes have a very low literacy rate as compared to other tribes. Another study by M.Y. Wani & R. T. Islam “Educational Status of Tribal of Jammu & Kashmir: A case study of Gujjars and Bakarwals” ascribes the reason for the backwardness of education in their community to seasonal migration, the practice of traditional occupation, unawareness about education, lack of interest on the part of parents, dearth of educational facilities, inaccessible road connectivity to rural and urban areas, financial problem, no mobile school facilities after primary standard and teacher absenteeism. The study further argues that only a small chunk of children continue education after primary and secondary schooling. They drop out of school because of the unavailability of mobile school facilities beyond the primary standard.

Another study conducted by Ambasht underscores that the main cause of illiteracy among Gujjar and Bakarwal is the social distance between the teacher and the pupil in the tribal areas. Suri (2014) in her study shows that the socioeconomic and educational status of Gujjar and Bakarwal is not satisfactory as compared to other sections of society. She further states that educational backwardness amongst Gujjars and Bakarwals is one of the key factors for their poverty, ignorance, and overall backwardness. Moving a step further Dubey (1972) conducted a study on education, social change, and political consciousness among the tribal community of northeast India and inferred that tribes are backward and illiterate. Professing the dire need for reforms in education to further the development of Scheduled Tribes, Chalam in his study of educational policy chalks out the above-stated pathways for human resource development.

Some of the challenges in the provision of educational services to transhumant areas are similar to those faced by other rural and marginalized households in the region, although often more severe. These include nomadism, militancy, lack of teachers willing to work in the conflict situations found in these areas, poor infrastructure as well as poorly motivated teachers, a household economy dependent on livestock, with children spending long periods away from their homes and schools, and transhumant mobility.

### **Initiatives taken by the J&K government**

The government of J&K has taken various initiatives over the years to improve the education scenario in the tribal areas. The first scholarship revision was announced in July 2022, with a 125-140% increase in scholarships, making quality education more affordable for tribal students. The scholarship budget, which had been hovering around a maximum of 14-15 Cr for all of these years, has been increased to more than 50.00 Cr this year, up from a high of 31.12 Cr last fiscal year. The number of tribal student hostels has been increased to 25. In the last two years, the Tribal Affairs Department, Jammu and Kashmir, has completed the construction

of eight hostels and approved the construction of 25 new hostels. As a follow-up to the 10.00 Cr modernization budget in 2021, the department has budgeted ‘17.00 Cr for hostel repair and renovation in 2022.’

The J&K government opened mobile schools in 1970 under which education is being provided to the children of nomadic ST communities by setting up an educational facility in the form of “seasonal schooling camps” in the upper reaches of the Pir Panjal range of mountains. The main purpose of these schemes was to fulfill the educational needs of the nomadic population. The government of J&K is changing the infrastructure landscape of schools in remote tribal areas through the pilot “Modernisation of Schools in Tribal Areas”. In the first phase, 100 smart schools were established across 20 districts at a cost of 20.00 Cr, and more than 200 schools will be equipped with smart classrooms this year. A residential coaching center for UPSC and State PSC exams is also under construction. Furthermore, a scheme has been launched to provide coaching for the Civil Services Examination to 100 tribal students this year in government-approved coaching institutions of repute, as well as 100 students for the NEET/JEE examinations. Despite good constitutional provisions, policies, and programs, their educational status is still low compared to other sections of society, due to a lack of awareness of the policies and programs initiated by the Government.

### **Policy recommendations**

- The government needs to ensure the availability of mobile schools in the majority of areas inhabited by Gujjars and Bakarwals.
- There is a need to develop curriculum and instructional material in tribal languages at the primary stages with arrangements of regional languages at the middle and secondary levels.
- The government also needs to ensure facilities of open schooling for the communities, especially for nomad tribes.
- Increased admission quotas for Gujjar and Bakarwal students in schools, colleges, and professional institutions are the need of the hour.
- Vocational education needs to be introduced in tribal schools.
- Biometric attendance should be introduced in tribal schools to stop the absenteeism of teachers as well as students.
- The authorities should make regular inspections of tribal schools.

The administrative department for tribal welfare was established in 2015 by the J&K government, but the creation of posts remained a missing link, leaving the department without basic manpower to plan and implement welfare schemes. The government needs to address this issue as well.

### **Conclusion**

It is an established fact that the literacy rate among Gujjars and Bakarwals is extremely low compared to other sections of society. Not only education but also accessibility is a major concern. Some of the challenges in providing educational services to transhumant areas are similar to those faced by other rural and marginalized households in the region, albeit to a greater extent. These include low population densities, which result in traveling long distances to schools; lack of teachers willing to live in the harsh conditions found in these areas, resulting in teacher shortages as well as poorly motivated teachers; lack of parental resources to pay for schooling costs such as uniforms, books, stationary, and so on; a migratory lifestyle and reliance on the livestock economy, which forces children to spend long periods away from their residential places and thus keep children away from schools. Educational problems concerning nomadic communities and the Gujjars need to be addressed in a holistic manner. Necessary measures if taken and implemented properly can result in an increase in literacy rate among Gujjars and Bakarwals.

# Melting glaciers might lead to new pandemics



**ADEELA HAMEED**

Unfortunately, humans have been leading to the ruin of planet earth. They are opting for secure homes by disregarding the homes of other species. Disproportionate use of natural resources is causing loss of biological diversity and environmental degradation. Global warming is amplifying weather and climate extremes at a surprising rate. Human-caused climate breakdown continues to wreak havoc across the world. People are losing lives and livelihoods due to fatal and recurrent floods, heat waves, droughts, and wildfires triggered by the climate crisis.

With an upsurge in global economic development, leaders and bureaucrats are continuing to focus on remodeling urban villages and militias. To gain a foothold in this rat race for dominance, they forget the plundered forests, polluted seas, and mountains that were bombed to achieve these aims. And with environmental plundering on the increase, the climate has changed drastically. About 3% of the Earth's biodiversity remains unblemished by human activities, a new study has found, suggesting that growing urbanization and deforestation have played a role in depleting the wilderness and natural ecosystems.

## Studies from around the world suggest novel viruses emerging from melting glaciers

Recent studies have shown that viruses dormant in ice sheets, permafrost, and glaciers are beginning to emerge as a result of global heating. These may or may not be dangerous, but we did take a gamble when, despite being aware of the repercussions, we took an anti-environmental attitude, didn't we?

Lake Hazen is the largest high Arctic freshwater lake in the world. Genetic analysis of its soil and lake sediments has suggested the risk of viral spillover. It is a phenomenon where a virus infects a new host for the first time. The study found that this spillover may be higher close to melting glaciers. Viruses and bacteria that were once locked up in glaciers and permafrost could reawaken, infecting local wildlife, more particularly as their range shifts closer to the poles.

Dr. Stéphane Aris-Brosou and his colleagues at the University of Ottawa in Canada were responsible for this study. Their research was published in the Proceedings of the Royal Society B. The team sequenced RNA and DNA in the collected samples to identify signatures closely matching those of known viruses and potential plant, animal, or fungal hosts.

They also ran an algorithm that evaluated the chance of these viruses infecting unrelated groups of organisms. The analysis suggested that the risk of viral spillover to new hosts was higher at locations close to where large amounts of glacial meltwater flowed in – a situation that will become more likely as our climate warms.

The team, however, did not quantify whether or not these viruses were capable of triggering an infection.

Researchers at the Ohio State University, in 2021, announced that they had found genetic material from 33 viruses, out of which 28 were novel, in ice samples collected from the Tibetan plateau in China. The viruses were estimated to be approximately 15,000 years old, based on their location, proving that unknown viruses can, and do, lurk in glacier ice.

A little earlier in 2014, at France's National Centre for Scientific Research in Aix-Marseille, scientists had managed to revive a giant

virus isolated from Siberian permafrost. And for the first time in 30,000 years, the virus was made infectious again. The study's author, Jean-Michel Claverie, stated that exposing such ice layers could be a recipe for disaster.

Aris-Brosou's team cautioned that as long as viruses and their bridge vectors are not present in the environment simultaneously, the likelihood of dramatic events probably remains low. On the other hand, climate change is predicted to modify the range of existing species, potentially bringing new hosts into contact with ancient bacteria or viruses.

## Will this lead to pandemics?

The team specified that no one could be absolutely sure. Also doubtful is whether or not the potential for host switching identified in Lake Hazen is unique within lake sediments as opined by Arwyn Edwards, the director of the Interdisciplinary Centre for Environmental Microbiology at Aberystwyth University.

Troubles arise only when humans interfere with a previously balanced ecosystem. Nature has the capability to restore originality. It is alive like us, and it fights infections like us. The ability of a naturally existing environment to restore imbalanced dynamics is called negative feedback. For example, to counter a virus, antivirals are developed. Likewise, to counter the abnormal exploitation of resources, the planetary environment retaliates through a standard of troops. Sometimes, these defenders may affect climate while others lead to pandemics to restore the ecosystem.

We need to urgently explore the microbial worlds all around the globe to understand risks in context. We are aware that the Arctic is warming rapidly and the major risks to the human race are from its influence on our climate. While diseases from elsewhere are slowly finding their way into the vulnerable communities and ecosystems of the Arctic.

But not just the Arctic, every glacier around the world is vulnerable to hazards if proper measures are not taken. Kashmir, too, is not far from everything that has been happening. However, research to prove the existence of new viruses in the melting glaciers of our valley is still lacking. Then again, that does not liberate this highly sensitive Himalayan region from any revolutionary microbial life that may have the potential to cause new pandemics.

## Issues to consider

Advocacy, education, or a health system isn't static. This is true for the global environment too. All systems, including the climate, are continuously evolving. We have known this since the beginning yet such changes may not be positive or meaningful every time, i.e. for the benefit of our disadvantaged, vulnerable, or excluded groups. Melting glaciers could bring in new waves of pandemics or they might not at all. Yet human civilization has to carefully consider the repercussions if the former speculation comes alive. That is what needs preparation.

Privileged people will talk. They will express concern only when they want to or, more appropriately, when the world is watching. Yet nobody goes out of their way to help, support, and work for the voiceless, deprived, and forgotten. Here, the ones affected would be us, all of us, so necessary steps should be taken to avoid such scenarios. We've written pages upon pages of amendments to the climate policy but to no avail. World leaders need to think these over once again and with COP27 in progress, strict regulations should be laid for every nation to be lawfully abided by as well.

The coronavirus pandemic made people question life, survival, and the future that will be after the dust settles. We realized the penalty of exploiting nature, so the requirement is to hold on to that understanding and try and modify our lives. It doesn't take a laboratory to manufacture a super-virus. The ones responsible are us, humans, who have the audacity to exploit nature beyond its threshold.



# Landslides in a changing climate



**KAINAT AZIZ**

The environment is currently witnessing a discernible change in its intrinsic attributes as a result of changing global climate. The earlier alarming prediction of scientists on changing climate is coming true in the form of reducing and retreating glaciers and rising sea levels, harsh heat waves, ungovernable forest fires, and other eccentric cataclysms. These changes may be attributed to either natural internal processes or continual anthropogenic disruption in the composition of stratosphere or that of land. However, based on scientific estimations, human activities are at the helm of major disruptions in the present-day environment including unambiguous warming making natural calamities more intense and frequent. Increased temperatures and heavy downpour events have created an urgency of understanding the changes in climate variables to measure and predict geohydrological hazards.

## Understanding landslides

The landslide ubiquity has been playing an important role in the transformation of landscapes inclusive of posing a significant threat to the human population and the geo-environment. Landslide refers to any mass wasting process or the movement of rock and soil, down the slope, under the influence of gravity initiated on natural or engineered slopes either by naturogenic or anthropogenic processes or by a combination of both. United Nations Development Programme (UNDP 1996) counted landslides as the second most vital natural hazard among all other contemplated hazards. The scale of economic losses associated with landslides is generally high than identified. Additionally, the increase in population pressure as well as insufficient land to accommodate the settlements has forced people to move further uphill in landslide-prone areas hence worsening disaster effects. The recorded landslide fatalities between 2004 and 2016 were 4862 with 75% of landslides in Asia alone along the Himalayan arc. According to the International Disaster Database (EM-DAT 2008) out of all the natural disasters, landslide accounts for 4.9% between 1990 and 2015. Despite alarming consequences, landslides are still recognized as more controllable and manageable disasters unlike storms and volcanic eruptions.

## Landslides and changing climate

It is debatable, how climatic change has affected the frequency and occurrence of landslides. Imperatively knowing the facts for what it takes to change the stability of natural slope? How do climatically governed processes trigger landslides? Supposedly, climate change has the full potential to change slope stability. Irrespective of substantive causes for climate change, this issue needs more urgent attention. It has been proved that the active downslope movement is caused by the moisture saturation of slope-forming material resulting in soil strength failure. Conceding that increase in the climatically controlled processes such as incessant rainfall, accelerated snow melting, attenuation of glaciers, etc. will eventually escalate the frequency of landslides.

## How climate change affects slope movements

According to the report by Intergovernmental Panel on Climate Change 2013, changes in climate variability due to global warming are ascertained in the form of numerous geohazards including

landslides. Heavy and frequent downpours in steep hilly regions have induced a higher probability of frequent landslides risking not only human life and related assets but also disturbing the geo-environment as well. It is proclaimed that changes in rainfall patterns are the results of the changing global climate. According to a study by Mishra et al., 2020, the global rainfall statistics for the last 50 to 100 years show an annual decrease in the average number of rainfall days, while a considerable increase in the number of days was observed when the heavy downpour occurred. These heavy precipitations for shorter periods have increased the risk of landslides induced by incessant rainfall on steep slopes. Furthermore, studies also reveal that temperatures in mountain regions has increased, hereby modifying the tree and snow line and altering the permafrost and glaciers. The hypothesis of climate change contributing to slope instability is also validated by IPCC 2014 report which states: "There is high confidence that changes in heatwaves, glacial retreat, and/or permafrost degradation will affect slope instabilities in high mountains and medium confidence that temperature-related changes will influence bedrock stability. There is also high confidence that changes in heavy precipitation will affect landslides in some regions."

The elemental theory of slope stability lies in the factor of safety which is expressed as  $sT$  where 's' is shear strength and 'T' is shear stress.

When the factor of safety is less than unity, the slope is contemplated as unstable, which can fail by any triggering factor. Coulomb in 1776 defined and expanded the shear strength as

$$s = c + \gamma \cdot z \cdot \cos 2\beta - u \cdot \tan \phi$$

whereas the shear stress is expressed as

$$\tau = \gamma \cdot z \cdot \sin \beta \cdot \cos \beta$$

The stability factors in the above equations that are attainable to be affected by the changing climate predominantly the prolonged and heavy rainfall which include cohesion (c) where excess water affects the soil suction, bulk density ( $\gamma$ ) in which the weight of slope forming material gets affected by percolated water, slope angle ( $\beta$ ), pore water pressure (u), internal friction angle ( $\phi$ ).

Over a longer duration of time, climate change augments the weathering processes such as shrinkage and expansion, drying and wetting of soils, etc which eventually depreciate the strength and structure of slope material, affecting the cohesion and internal friction. The slopes with prior high-water content require less water from any hydro-climatic event to lose stability. Corresponding to the water infiltration responsible for slope failure, rising global temperatures play a significant role in slope instability. Intermittent high temperatures contribute to the thermal breakdown of rocks leaving behind deep cracks which in the course of time reduce the strength of rock. The water or any other unconstrained material entering the cracks and fissures of rock further acts as a wedge and slacks the coherent rock blocks. The soaring temperatures also escalate evaporation on bare soil surfaces rendering the soils drier and creating more unstable conditions in deeper soils.

In addition to this, warming exacerbates the wet and dry period cycles which becomes a mode in widening the gaps in the soil thus creating a favorable condition for slopes to fail. Rapid and earlier glacier melting on steep higher altitudes expose the unvegetated cover of soil which become vulnerable to failures at the hands of triggering factors. The snow cover absorbs rain and protects the soil surface from getting eroded by raindrops, the receding glaciers devoid the soil of this protective covering while, on the other hand, paving the way to more water content inside the soil thereby increasing the probability of landslides. The wildfires that leave behind the ingrained plant roots for a period of more than three years after the fire also weaken the slopes.

## Havoc of landslide ubiquity

The ubiquitous nature of landslides and related damages is more pronounced when the people and their linked structures are in the proximity of landslide-prone areas. During the period from 2004 to 2016, 55997 people got killed in different 4862 global incidents of non-seismic landslides. The Indian peninsula is no different in having a sensational record of such serious geohazards with 15% of total land affected by landslides alone. Among all the landslides that have occurred in India, the major disastrous landslides are directly linked to incessant rainfalls. Out of all the physiographic divisions of the Indian peninsula, the Himalayan arc is observed to have the highest rate and increased frequency of such disasters compared to the Southern mountain ranges of India which include the Western and Eastern Ghats and Nilgiri hills. Every year huge amount of productive land is lost to sliding during the monsoon period in India. While observing the rainfall versus landslides data from 1901 to 2010, it becomes clear how the landslides are associated with heavy downpours during the monsoon period in Himalayan states (Figure 1).

of 7-12 cm within 24 hours in Jammu and Kashmir region Sadal Village of Udhampur district in September 2014 witnessed a huge landslide disaster in which 75 houses were damaged killing 40 people. National highway NH1A connecting the entire valley with the rest of the country gets frequently blocked during monsoon and winter periods due to recurring landslides. Landslides and rockfall events on the national highway not only have claimed human lives in the course but also disengage the only much used road network leading to inflation and shortage of imperative goods within the valley with thousands of people stranded on the highway for multiple days and nights. Although, authorities ensure road clearance by removing the debris and restoring the smooth movement of traffic along NH1A with more veracity than what it used to be one decade back. However, just making road connectivity available isn't a permanent solution to the problem till the problem isn't scrutinized from its core and excogitated.

### Conclusion

Landslide studies entail an intricate research and multidisciplinary approach to figure out the dynamics of an ongoing process that further demands data generation both qualitatively and quantitatively from discrete branches of knowledge. Landslides, at the beginning of the post-war periods, were seen as "engineering problems" which require "engineering solutions" by using structural techniques with a major focus on retaining walls but with the advancement of techniques, this structural approach was diversified to include more sophisticated and ingenious techniques like that of soil nailing. Also, a shift towards "soft engineering" has been conspicuous over the last few decades involving novel sustainable and non-structural solutions. While considering the appropriate remedial measures, sustainability and environmental measures should become the prime focus, aiming to reduce any impact on the local environment or visual hindrance of scenic beauties. One such example in this regard is the stabilization of slopes by bio-engineering methods.

In the real sense, the concept of utilizing the green cover to stabilize slopes is not new, from ages, vegetation cover has been shielding the slopes by rainfall interception and groundwater transpiration thus maintaining the drier conditions of the soil. Besides controlling these hydrological processes, the roots reinforce the soil and provide a mechanical effect to the soil by increasing the shear strength. The vetiver grass system is one such example of a bioengineering method that is being used on sensitive slopes of the Kashmir Himalayas to replace conventional structural measures for slope stability.

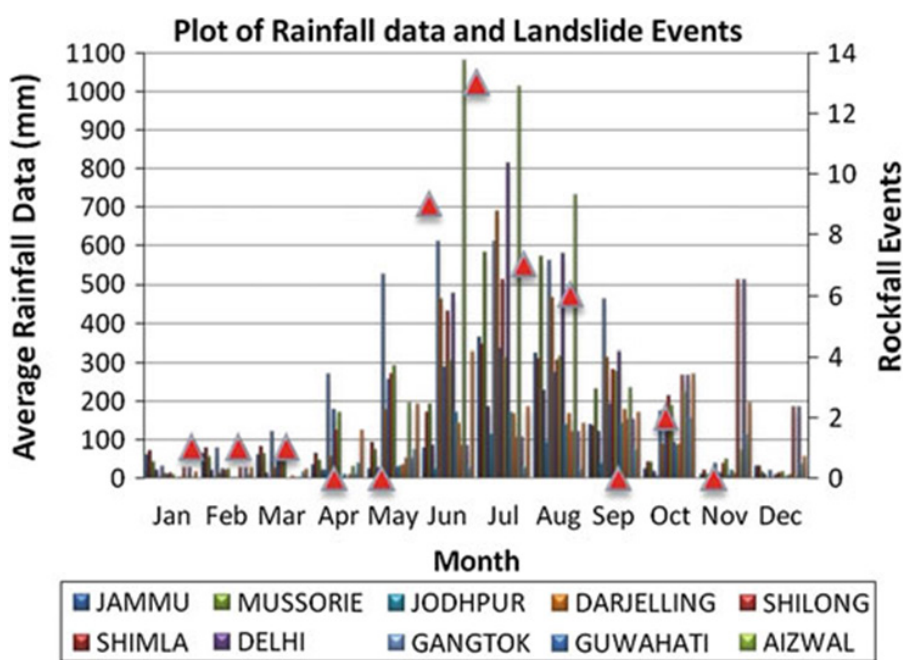


Figure 1: Rainfall distribution and Landslide/Rockfall events of Indian states from 1901-2010. (Source [www.imd.gov.in](http://www.imd.gov.in))

### Landslides in J&K

Jammu and Kashmir in particular has a history of some disastrous landslides that have claimed huge life and property losses from time to time. Most of these landslide events occurred after incessant rainfall. For example, as per IMD records the catastrophic rains



Latitude: 32.998081  
 Longitude: 75.206626  
 Elevation: 814.82±16 m  
 Accuracy: 14.6 m  
 Azimuth: 343° (N)  
 Pitch: 4.4°  
 Time: 05.02.2022 00:01

# Explainer: Why should India worry about Arab-China summit



**AMANDEEP KUMAR**

The era of the 21st century will go down in geopolitical history as one of the most destabilizing, yet significant times. It is said, little did Uncle Sam know that a country like China which struggled to get international recognition as a nation-state could now become a self-proclaimed hegemon in today's world. The declarative theory of state sovereignty has now found its application and relevance at the international level of analysis. In this context, it is well enough to say that the international arena is in a state of flux and this time it is not just a war of words, ideologies, or armaments, but it is a competition to define a world order in nerve-racking ways.

## **How growing Indian diplomacy has given anxiety to China?**

Little did the world know when COVID-19 hit the globe that the Indian Pharma industry will become a *savoir-faire* for the world. Many Indian scholars have been grappling with the state of the world order today. From the bipolarity of the cold war era to a shift of US hegemony, Indian experts have criticized the idea of a hegemon, something Indian foreign policy experts and the Indian Ministry of External Affairs are trying to change by pitching for a multi-polar world order, most remarkably through the G-20 Summit presently. The anxieties in India are high as China has begun to fill the vacuum produced by the saturation of the USA's military foreign policy of regime change fueled by oil. This saturation of US foreign policy has led to the US withdrawal from world affairs in some sense, most remarkably seen in its abrupt and shabby withdrawal from Afghanistan recently.

India is navigating this treacherous international arena,

trying to make a space for itself, which is why we have seen India taking lead on issues non-conventional to India's foreign policy. For instance, from International Solar Alliance (ISA), vaccine diplomacy and now being at the helm of the G20 Presidency is a new trend set by India on the world stage. These foreign policy variables can be better capitalized especially when the Indo-Pacific has become a pivot for the entire world for strategic incentives. They say that whoever sits at the crown of the Indian Ocean wears the crown. All this sounds like good news, but the first ever China-Arab Summit is a shot in the arm of Indian diplomacy because India can afford the Chinese engagement neither as a friend who is aggressive, who breaches territorial borders, indulges in cartographic aggression, saber-rattling, et al. According to the sources, a pragmatic shift has been highlighted in how the Modi government's aggressive foreign policy stands have brought the world in India's favor. However, the China-Arab meeting is becoming an eye-opener.

But this cannot discount the fact that India has still striven so hard to change the balance of trade algorithm with China as the bilateral trade with China crossed USD 100 billion for the second year in the first nine months of 2022 while India's trade deficit climbed to over USD 75 billion, as per the trade data released by Chinese customs. Self-sufficiency in the most minute ways has been promoted to over-compensate for the over-dependence on exports. Right-wing extremism has cropped in the business also with various slogans of Be Indian Buy Indian, Say no to Chinese materials, especially after the Galwan clash which claimed the lives of 20 Indian soldiers.

The situation becomes tough when foreign policy, trade, and national security are being seen in isolation in India. The point is, when the Arab China Summit 2022 is about to happen, there is some anxiety among Indian strategists because the underutilized geopolitical potential of India is now getting depleted because it is getting overpowered by Xi Jinping's statesmanship which is undeterred by political borders, the pandemic or even sea routes of communications (while China is already warring against the US with regard to the UN SLOCS). The situation is uncomfortable for India as it has already felt abandoned on the world stage when it came to the Afghan peace process, the Taliban 2.0 phase, and the pre-eminence of China and Pakistan synergy in the same. In short, the Indian position vis-à-vis the first-ever Arab-China summit has become like an onlooker outside a green room and classified



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meetings of top-notch international organizations.

While China is hybridizing its engagement in the world by tweaking its economic model from time to time, its engagement with the Arab world is an alarming sign for India that China is becoming a greater force than ever to reckon with. The current world order seems to now consist of a pseudo-hegemon in the form of a Chinese dragon which is getting deeply embedded in the Arab and African world, breaking all Eurocentric biases to foreign policy approaches. This is definitely a lesson for India for foreign policy hybridization, to think beyond mundane geopolitics and geoeconomics. It is worth acknowledging that India is under pressure and struggling on a tightrope with its aspirations to become a superpower, the strategic tightrope of its superpower ambitions (flirting with hegemonic tendencies as it is also contesting a permanent seat in the UNSC which is again quite undemocratic a power bloc within the UN) while convincing the world that it still believes in Vasudev Kutumbhakam – the world is one family, scholars feel that when faced with the Chinese threat, India doesn't exactly know whether to show itself as a potential

superpower or a multi-polar world order supporter, as none is working in isolation.

### **The Chinese response to the world**

Just like the above issues cannot be seen in isolation, the Arabian affair of the Chinese Premier cannot be seen in isolation. China has vociferously presented itself as a nation that doesn't bother much about the institutional decline and decreasing faith in multilateral institutions (considering China's rejection of the Hague Tribunal's verdict on the South China Sea or its disregard for the UNSLOC or its evergreen cartographic aggression against India), unfortunately, democracy is declining as a currency, while authoritarian powers are navigating with relative ease with business as usual, with the pandemic as an exception.

The visit of Chinese President Xi to Arab nations was well planned in advance when the de facto ruler of the world's biggest oil exporter visited the Chinese province in 2019 and put forth his idea of the Saudi Vision of 2030. Chinese found a good partner in the Gulf as they have been promoting their links to the Arab world since the existence of the silk route and now "OBOR" (One Belt, One Road) has taken the place of the silk route. With the growing tension in the South China Sea and the West's interest in the Indo-Pacific with QUAD and now AUKUS groupings, the Chinese are more than just concerned and focused on the development of OBOR to find an alternate route at the same time they have been very adamant to take over the hegemony of west that West has been practicing across the globe with sweet talks. The tough policy of zero covid by Xi Jinping delayed their (Chinese) plan to explore the gulf region with full potential. GCC (Gulf Cooperation Council) countries play an important role as well.

### **The new option for Gulf states**

There are no permanent friends and no permanent enemies in international relations time and again West has proven this statement true. The Saudis were confident of the USA taking a tough stand on Iran but that proved otherwise. Now the decision of OPEC to cut down on crude oil against the US wishes was a bold signal that the West's way is not always right. The Gulf states decided to move with the global wind and it was in South Asia. When investment in India increased multifold in the last few years as India had the largest diaspora working in the gulf states and generating a large chunk of revenue back home in India. For Arabs, China is an interesting option that offers them multiple solutions including a connection to the east. Considering, the fact that nobody wants to put all their eggs in one basket the gulf states are on the right track of experimenting with China which may not go down well with India.

### **But what about the world order?**

Further, China may talk politically correct in the upcoming summit, bringing relevant issues to the table of the Arab world, but it cannot be denied that China is still an authoritarian nation-state and the Arab world has had a history of theocracy and authoritarianism, the scenario of geopolitical depression which was earlier predicted by the Eurasia Group in 2018 is getting to see the light of the day at least in the Indian horizons, and it is also important to note that Indian researchers have also been concerned about India's own democratic credentials lately.

The concern that seeps down to the roots is of the people. A salience of dissatisfaction, resentment, and helplessness is growing among people all around the world, be it the voices of the women of Iran, the protestors against the Chinese handling of pandemic lockdowns, or the crises faced by the Ukrainians dispossessed by the Russian war. Authoritarianism is set to become the new normal, breaking the backbone of democracy and people's democratic ambitions around the world. In other words, the Arab-China Summit is going to set the stage for altering the world order and the content of its negotiations. It is felt that the outcome of this summit will unfortunately overshadow the outcomes of the G20 Summit, Hash tag India's Presidency.

Is this Chinese pivot to the Arab world or a euphemism for the rise of a disastrous and ruthless era that even Bismarck couldn't have imagined?

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BILAL DAR

