

Investment Promotion

- ❖ Three years ago, under various legal procedures, the Central Government implemented 'all the provisions of the Constitution including the provisions of the Constitution as amended from time to time' on the State of Jammu and Kashmir. Also, the erstwhile state of Jammu and Kashmir was reorganized into two union territories - Ladakh and Jammu and Kashmir. The long-term policy was to bring about a paradigm shift in the region and its economy.
- ❖ The expenditure of the Jammu and Kashmir government in 2018-19 was 57 per cent of the state's GDP, for which most of the funds were being borne by the central government.
- ❖ The dependence on the government was high and the private sector was weak. (The government expenditure in Himachal Pradesh with almost similar characteristics was only 28 per cent.) At that time, 40 per cent of the receipts of the erstwhile state of Jammu and Kashmir came from the central government.
- ❖ Due to the presence of a large number of government employees (about 5 lakhs), one-fourth of the total receipts of the state went towards salaries and pensions. The per capita net domestic product of Jammu and Kashmir was around Rs 94,000 which was almost half as compared to Rs 1,76,000 in Himachal Pradesh.
- ❖ The density of roads in Jammu and Kashmir was one-fifth that of Himachal Pradesh and unlike Himachal Pradesh, Jammu and Kashmir was not able to utilize even its huge hydro-electric potential.
- ❖ This was not a sustainable situation and needed to be changed. It was necessary to bring Jammu and Kashmir in such a position that private enterprise and investment come here and the economy would be strengthened by creating more jobs and income. Such a change required an appropriate economic strategy.

Making Economic Policies

- ❖ **For the formulation of an appropriate economic policy for a region, it is necessary to take stock of the positive and negative conditions of that region. This also applies to Jammu and Kashmir.**
- ❖ **The location and geographical condition of Jammu and Kashmir is such that the transportation cost of the goods produced here will be high, which will increase their price. Therefore, an appropriate economic strategy for trading in expensive goods should be such that investors and policy-makers are directed to promote the production of such specific goods/services that are of the choice of such specific customers, due to the cost of transportation. Buy these goods/services even if the price is high.**
- ❖ **There may be a number of products/services whose production/manufacture in a particular sector is a related skill in the long run. This is made possible by the development of local knowledge and due to the natural condition of that area, that production/manufacture takes place naturally there.**
- ❖ **Skills and natural conditions exist for many products/services in Jammu and Kashmir and their focus can usher in a transformation in the economy of the region.**
- ❖ **The handicrafts of this region have an international reputation as far as local products are concerned. Jammu and Kashmir produces apples in large quantities and also has products like walnuts and saffron, which are less in size and weight but more expensive.**

Boost Investment

- ❖ Jammu and Kashmir Industrial Policy - 2021-30 is the leading policy for investment and industrial growth in this union territory. The new Industrial Development Scheme is not only the most attractive scheme of its kind, but the shortcomings of the previous schemes have also been removed. In this, there is a provision to give more incentive to remote areas, which will give impetus to development and better use of mine land in hitherto neglected areas.
- ❖ In this policy investment, employment – all these aspects have been judiciously addressed keeping in mind the prime objective of generating employment. Emphasis has been laid on such industries which can employ

more labor and produce more value and quality. These include the traditionally sustainable industries of this union territory, such as tourism, handicrafts and horticulture, hand information technology and so on. Allied services and healthcare.

- ❖ The policy also focuses on the development of areas associated with the existing strong enterprises – post-harvest management in horticulture and various forms of tourism such as film tourism.
- ❖ In the previous policies, massive subsidies and tax exemptions were given to bring investment into the state. But many such investments based on financial incentives were not linked to areas in which J&K was naturally strong.
- ❖ In the new policy, more attention has been given to those areas in which the state's position is naturally good. The service sector accounts for 53 per cent of the state's economy, so a clear positive service sector list has been made in this policy in which incentives will be given to the enterprises involved. These include tourism, film tourism, health services, education and skill development etc.
- ❖ In the policy announcements and budget provisions after the introduction of this industrial policy, only the basic aspects of this policy have been strengthened. The purpose of the said announcements and budget provisions is to expand and empower the various aspects of this policy.

Sightseeing

- ❖ Jammu and Kashmir has been associated with tourism for a long time, but it is surprising that the erstwhile state has never been among the top ten states in terms of tourist inflow to the total number of tourists or the ratio of population.
- ❖ The present budget of this union territory has provided support and resources for 75 new tourism centers to expand the tourism economy of the region and bring more money to this sector with huge employment potential. The functions of other departments and the financial provisions given to them are being intelligently coordinated, as the Culture Department is encouraging the traditional fairs and Sufi celebrations anew.
- ❖ Many of these are in remote, unexplored areas that are part of the rural tourism network of Jammu and Kashmir. These will encourage local youth and give a boost to rural tourism. The synergy of these efforts is expected to yield better results.
- ❖ In November last year, Jammu and Kashmir received the highest number of tourists in the last seven years. On March 27, 36,473 tourists visited the Tulip Garden. This is the largest number ever. This year 4th April was the busiest day in the history of Srinagar International Airport. On that day 15,014 people either came or left Srinagar in 90 flights.

Gardening

- ❖ The budget for horticulture has focused on both productivity and income. The areas encouraged in the budget include promoting cold storage capacity, increasing apple productivity by planting more orchards, promoting less space-consuming and high-value agro-products, such as aromatic and cash crops and vegetables. to do etc.
- ❖ The process of obtaining GI certification for saffron and other products is underway. These efforts will increase the possibilities in this area. If the productivity in this sector can be increased according to the international standards, then the expansion of this sector will be four times.

Foreign Trade and Investment

- ❖ Another initiative has been taken by the Jammu and Kashmir administration. India and the United Arab Emirates (UAE) have recently signed a Comprehensive Economic Partnership Agreement (CEPA).
- ❖ It has provisions to expand the market for business, investment and tourism.

- ♣ Efforts are being made to make Jammu and Kashmir benefit from this agreement. The UAE is intimately familiar with Kashmir. Therefore, taking advantage of these links and possibilities, efforts are being made to get investments from the Gulf region.

Increasing investment in Jammu and Kashmir

- ♣ End of constitutional uncertainty in this sector, better law and order situation, more focus on basic amenities and adoption of strategy focused on economic development has increased the interest of investors in this sector and their attitude towards many policies. has been encouraging.
- ♣ Investors who were earlier shying away from investing in the erstwhile state of Jammu and Kashmir are now looking forward to invest in the newly formed Union Territory. The administration here has received investment proposals worth Rs 51,000 crore, which is estimated to provide employment to 2.37 lakh people.
- ♣ It is also important that the sector is now increasingly attracted by foreign, especially well-known names and brands from the UAE. It is also important to note that most of the sectors where investment has been offered and offers have been received are included in the list of positive sectors under the industrial policy of the government.

Investment strategy in profitable sectors

- ♣ **What does a private investor expect before investing money in Jammu and Kashmir? The obvious answer is that he should get a return on his investment. For this it is important that the business plan of the investor is closely related to the natural, traditional and human resources of the state.**
- ♣ **A well-organized business remains profitable on such a solid basis, not always dependent on government subsidies. In Jammu and Kashmir, the crowd of tourists broke all the previous records in the past days. This shows how profitable this sector can be for investors. Therefore, investing in this sector, especially in hitherto unknown areas, can be quite profitable.**
- ♣ **Investment in horticulture and post-harvest value-addition processes can also be beneficial. This union territory is naturally rich in both these areas, as well as the knowledge of the local people about these enterprises and they are also traditional areas.**
- ♣ **Investors can also invest in many other sectors with good profit potential. For example, a large number of skilled local youth can be hired in information technology and related services.**
- ♣ **Due to the advancement of information technology and COVID-19, the trend of work from home has increased in this sector. In view of all these conditions, investment in this sector has good potential for profit.**
- ♣ **Sectors with similar innovation potential in Jammu and Kashmir include service, education and health and holistic wellness enterprises. But investing in J&K just to take advantage of the subsidy would be unwise and would only hurt in the long run.**
- ♣ **Towards a bright future, the government's economic policy is aimed at bringing about a change in which the new Jammu and Kashmir moves along with a progressively progressive India, with new areas to visit and explore possibilities.**
- ♣ **The horticulture sector here produces such fruits and produces fruit products which are world-class in quality. Developed with centuries of experience and culture, the handicrafts here should be exported with renewed energy to all over the world. This region will have to generate one-third of India's hydro-electricity.**
- ♣ **There is also a lot of potential for the development of information technology and related services, pharmaceutical industry, forest industry and electronics industries in this area. This sector can also be unmatched in the country in the field of health, wellness and education.**

Ease of Living

- ❖ Since the constitutional reforms in J&K in August 2019, the government has been focusing on bringing about comprehensive reforms to improve governance and ease of living for the people of the region at an unprecedented pace. Banihal Ka Gund Tunnel has been constructed at a cost of Rs. 3.100 crore and has been commissioned.
- ❖ After the construction of this 8.45 km long tunnel, the distance between Banihal and Qazigund has been reduced to 16 km and travel time will be saved in one and a half hours. This tunnel will provide connectivity to Jammu and Kashmir in any weather and will help in reducing the distance between the two regions.
- ❖ The Prime Minister has inaugurated a 500 kW solar power plant at Palli village in Jammu. In this way it will be the first carbon free panchayat in the country.

Existing Road and Transport Projects

Baramulla-Gulmarg

- ❖ Upgradation of roads under National Highway-701A in the UT of Jammu-Kashmir. Total length 43 km, a provision of Rs 85 crore has been made to improve the quality of National Highways. This will facilitate the tourists going to Gulmarg.

Velu to Donipawa (P-VT):

- ❖ Construction and widening of roads connected with National Highway No. 244 in Anantnag district of Jammu and Kashmir. The total length is 28 km, for which a provision of Rs 158 crore has been made. Through this the connectivity between Kokernag and Velu will be improved.

Donipawa to Ashajipra (P-VII):

- ❖ National Highway No.-244 in Anantnag will be connected with National Highway No.-44. A new bypass will be constructed. The total length of the road is 8.5 km and a provision of Rs 57 crore has been made to build a bypass near Anantnag town.
- ❖ Construction of 4-lane Ring Road around Srinagar (42 kms), Rs.2948.72 crore allocated to reduce congestion and traffic in Srinagar city. Various steps have been taken to facilitate Shri Amarnath Yatra, So that the devotees do not face any kind of problem.
- ❖ Under the Centre's scheme 'PRASAD', the construction work of Tourist Interpretation Center at Dargah Hazratwal has been completed.
- ❖ The Central Government had launched a new scheme on 19 February 2021 for the industrial development of the Union Territory of Jammu and Kashmir, which would cost a total of Rs 28,400 crore. Its purpose is to promote the industrial development of Jammu and Kashmir. This scheme is likely to provide employment to 4.5 lakh people. Under the Swachh Bharat Mission, Jammu and Kashmir has been made free from the problem of open defecation.
- ❖ Cent percent success has been achieved in the total individual beneficiary schemes of the Center including Saubhagya, Ujala, Ujjwala and Indradhanush.
- ❖ Under the Pradhan Mantri Gram Sadak Yojana, 14500 km of roads have been completed so far. Under this, 2,000 places have been connected with better roads.
- ❖ Night flight services have also been started from Jammu and Srinagar. The high-density plantation scheme started for Sev has been expanded to include fruits like mango, litchi, cherry, cashew etc. Kashmiri saffron has been given GI tag.

- ❖ A total of 141,815 works/projects have been started under various sectoral schemes in the Union Territory of Jammu and Kashmir since the year 2019. A fund of Rs 27274 crore has been allocated to complete these projects.
 - ❖ In addition to skilled workers, unskilled workers, small businessmen, freight transporters, engineers and supply of different types of materials are also benefiting from this.
1. PMDP-2015 – Work has intensified on ongoing projects under PM Development Package 2015 in the Union Territory of Jammu and Kashmir. A total of 53 projects are being implemented at a cost of Rs 58,477 crore in various sectors like roads, energy, health, education, tourism, agriculture, skill development. These projects pertain to 15 ministries.
 2. Delayed Projects- A total of 1.193 projects falling under this category have been completed with a total cost of Rs. 1984 crores.
 3. Health- Recently 2 new AIIMS, 7 new medical colleges, 2 state level cancer institutes and 15 nursing colleges have been started.
 4. Jal Jeevan Mission- Earlier, where a total of 5.75 lakh houses (31 percent) had water connection, now a total of 10.55 lakh houses (57 percent) have water connection. Two districts (Srinagar and Ganderbal) have also been declared as Har Ghar Jal District.
 5. Irrigation and Flood Control- Three important irrigation projects have been completed. Under this, Phase III of the Main Ravi Canal Project (costing Rs 62 crore), Tral Lift Irrigation Project (Cost Rs 45 crore) and Phase I of the Flood Management Plan for Jhelum and its tributaries have been completed.
 6. Education- Indian Institute of Technology (IIT), Jammu and Indian Institute of Management, Jammu have started functioning. The number of Government Degree Colleges/Engineering Colleges has increased from 96 to 147.

Sustainable Tourism

- ❖ India is one of the most ecologically diverse countries, with magnificent mountains, Ocean, enchanting desert and rich forests. One such special place is the high altitude desert of Ladakh, commonly called 'Man Land', which is located in the northernmost remote place of India.
- ❖ The place is famous for some of the most beautiful and ancient monasteries set in a magical landscape of lofty mountains and cold desert plains. Ladakh is an ecologically very sensitive place due to its location and remoteness, which benefits from its tourism industry.
- ❖ Many others working in related industries like transportation, housing, catering, cottage industries etc. find opportunities to work in tourism business but, unfortunately, this puts a lot of pressure on the natural resources of this sensitive ecosystem. To add further impetus to it, the extreme impact of climate change is also putting people's lives at great risk here.
- ❖ Rainfall has also become incredibly erratic. The flash floods due to cloudburst in Leh Ladakh region are also raising doubts about the long term sustainability of Ladakh.
- ❖ The Government of Ladakh has taken up the task of waste management with the goal of protecting the environment, reducing carbon emissions and maintaining the Himalayan ecosystem.
- ❖ The central government is working towards making Ladakh a tourist destination, focusing on the aspects of adventure, culture and responsible tourism. Seven projects worth Rs 594 crore have been approved for Jammu and Kashmir and Ladakh under the 'Swadesh Darshan' and 'Prasad' schemes under the Ministry of Tourism.
- ❖ The move will make Ladakh a very important, ecologically sustainable low-impact tourism destination promoting sustainable and inclusive growth for the local community.
- ❖ It should be borne in mind that tourism should be sustainable in nature and should have minimal negative impact on local ecology and population through systematic and controlled tourism.

- ❖ The objective of promoting tourism in Ladakh is to create employment opportunities for the local people and to promote the culture and products of Ladakh among tourists from India and rest of the world.
- ❖ There is a need for holistic development of Ladakh's tourism industry with focus on new growth opportunities, connectivity, infrastructure and sustainable and community-based development. There are immense opportunities and challenges that exist in Leh in the form of adventure tourism, homestay tourism has the potential to open up new possibilities and empower the local community and especially women.
- ❖ Jammu, Kashmir and Ladakh are three separate regions, which together form the Union Territories of Jammu and Kashmir and Ladakh. These three regions have immense potential for tourism due to domestic and foreign tourists.
- ❖ Kashmir is often referred to as 'heaven on earth' and has long been a major tourist destination. It is also known as the 'Switzerland of the East' due to its abundance of natural beauty.
- ❖ Such products are in abundance, which can be bought in the state of Jammu and Kashmir. Each district of the state has abundant natural resources for visitors, adventure tourism (like river rafting and mountaineering), numerous trekking routes, pilgrimage tours, wildlife tourism, heritage tourism, ethnic food festivals and cultural events, handicrafts etc. Is.
- ❖ The unprecedented growth in tourism has given rise to 'over-tourism' in this place, which has an immediate negative impact on natural resources, cultural heritage and quality of life.
- ❖ If poorly managed 'over-tourism' is viewed as a potential risk, the negative impact of the dynamic forces that often drive tourism becomes inevitable. In a sustainable structure, there must be a balance between the economic, environmental and socio-cultural consequences of tourism.

According to UNWTO, Sustainable Tourism:

- ❖ makes the best use of environmental resources important to the development of tourism, while maintaining important ecological processes and helping to protect natural heritage and biodiversity;
- ❖ Respects the socio-cultural authenticity of host communities, preserves their built and living cultural heritage and traditional values, and promotes intercultural understanding and tolerance.
- ❖ Ensures long-term economic viability, delivers balanced socio-economic benefits to all stakeholders including opportunities for sustainable employment and income generation, social services for host communities, and aids in poverty reduction.
- ❖ The tourism industry in places like Ladakh depends on imagery of pristine natural places, but most visitors to these areas show great respect for its sensitive ecosystem and cultural sensibility.
- ❖ Every year, they generate tons of garbage, endangering the environment and human health as well as ruining the beauty of the place.
- ❖ At present, a strategy should be adopted that substantially reduces the risk of pollution and the risk of environmental degradation, and the development of tourism is based on its affordability.

Harnessing the potential of high quality tourism and wildlife conservation

- ❖ This is yet to be done through scientific understanding and efficient planning. The landscape of Ladakh is mainly represented by pastures/grasslands which are home to ethnic communities dependent on animal husbandry products.
- ❖ These pastures represent a set of natural, social and cultural landscapes. However, without properly understanding the delicate interrelationships of the various components of these landscapes, the rapid development of tourism can affect the ecosystem of these unique grasslands of Ladakh.
- ❖ It is important to consider the possibilities of sustainability for the development of tourism in these areas of Ladakh landscape. Threats to socio-cultural heritage, intensive use of limited resources, and negative

externalities as in other places can have many other harmful effects, such as the inappropriate of traditional eco-friendly and aesthetically pleasing architecture, the use of resources. Replaced by overuse and hazardous constructions, poorly designed roads and other related infrastructure, inadequate solid waste management, increased air pollution, degradation of water sources and loss of biological diversity.

- ❖ Focusing only on attracting maximum visitors cannot be the basis of sustainable tourism development, especially when the carrying capacity of the region is limited.
- ❖ Given the uniqueness and sensitivity of the Ladakh region, the focus of tourism development can be on the quality of tourism and equity in tourism income among various stakeholders, including local communities.
- ❖ Work hard to develop Jammu and Kashmir and Ladakh as 'eco-tourism hotspots', as uncontrolled tourism contributes to the ecological imbalance caused by climate change.
- ❖ Ecotourism or ecotourism is ethical travel to ancient areas that protects the environment, promotes community development and educates both local people and visitors.
- ❖ This union territory can collect information from Bhutan as well as other tourist hotspots that have pledged to absorb carbon in excess of the encouraged carbon and be a net sink for global greenhouse and gas emissions. For example, steps such as limiting the number of visitors, building eco-friendly high-quality eco-lodges, and reducing poaching of exotic wildlife are likely to be stringent measures to increase development and tourism in these areas. May be part of the rules and guidelines.
- ❖ By adopting these balanced efforts towards sustainability, we can preserve the beauty of these places by protecting the natural environment and ecology.

Education and Skill Development

- ❖ **Ladakh was granted the status of a Union Territory in 2019. It has since opened up ample opportunities for this region with unique natural resources, excellent environment and friendly population.**
- ❖ **Funding from the central government and the efforts of the central and union territory level leadership has given the Ladakh administration an opportunity to prepare and implement a unique model of development in this serene and very beautiful region.**
- ❖ **Youth has the most important role in the planning of administration for any model of development. Therefore, it is important to equip the youth of Ladakh with the required skills and abilities to present an exemplary model and lead the region on the path of development.**
- ❖ **Presently about 3938 of these youth are studying in colleges, polytechnic colleges and universities. Apart from this, almost the same number of youth of Ladakh are studying in higher education institutions outside this union territory.**
- ❖ **Local youth studying outside Ladakh return to government jobs and to tourism and allied industries. The presence of industries in Ladakh is very less.**
- ❖ **Therefore, the withdrawal of youth puts pressure on the limited job market of this union territory. But these educated youth also bring with them experience, ideas and entrepreneurship which can help the sector to tap new opportunities.**
- ❖ **The Ladakh administration has focused on harnessing this demographic advantage over the last two and a half years. It is striving for capacity building of the youth so that they can actively contribute in the sustainable development of the region.**

Quality education and supportive infrastructure

- ❖ Highest focus is on quality higher education in Ladakh. The University of Ladakh was established in 2019 and consists of six colleges in Leh, Kargil, Nubra, Jaskar, Khalsi and Drass.
- ❖ Presently there are 22 departments in this university and special subjects like Criminology, Police Administration and Physical Education are also being taught. The University of Ladakh has entered into 16 agreements with other institutions to promote student exchange programmes, faculty development,

research collaboration and capacity building. These institutes include Delhi University, Danish Consortium for Academic Craftsmanship, Wadia Institute of Himalayan Geology and National Criminology University.

- ❖ New faculty and laboratory sections, sports infrastructure, auditorium and staff residences are being constructed and expanded in the two campuses of the University of Ladakh.
- ❖ The quality of education is also being improved through faculty development and student exchange programs and guest faculty. The colleges at Nubra and Zaskar had two sections which were constructed by the Higher Education Department of the erstwhile state of Jammu and Kashmir. The Khalsi and Dras colleges established later did not have any infrastructure.
- ❖ The Ladakh administration has taken the lead in improving the infrastructure of these colleges. There was only one hostel for 24 girls in the college in Leh. Therefore, first of all attention has been paid to the construction of hostels for boys and girls in all the colleges.
- ❖ The Government of India has given a special development package for the new Union Territory of Ladakh. Under this, infrastructure projects worth about Rs 200 crore have been approved for colleges in 2021-22.
- ❖ All these constructions are energy efficient in line with the non-carbon approach for Ladakh. These are being designed keeping in mind the needs of the differently-abled students. The Ladakh administration has declared 2022-23 as the Year of Persons with Disabilities.
- ❖ Prime Minister Shri Narendra Modi announced the establishment of Indus Central University in 2021 in the Lok Sabha. This university is being built on 110 acres of land in Khalsi. This university will provide an opportunity to the youth of Ladakh to study with youth from other parts of the country and abroad.

Scholarship

- ❖ The Ladakh administration launched the Reva scheme in 2021 with the aim of promoting entrepreneurship and intelligence among students. The Ladakhi word reva means hope. Under this scheme, the meritorious students of class 10th and 12th are given financial assistance up to one lakh rupees irrespective of their family income.
- ❖ Students can use this money for coaching for national level exams like NEET, JEE, UG CLAT and NDA.
- ❖ Under the Reva scheme, financial assistance up to Rs 1.54 lakh is also given to the students who have passed the preliminary stage of examinations like Civil Services, Engineering Services and Forest Services. Students can use this amount for coaching for the main stage of these competitive examinations.
- ❖ About 9363 students from Ladakh have received stipends under the post-matriculation scholarship scheme of the Ministries of Minority and Tribal Affairs in 2021-22. This scheme is for those students of Ladakh and Jammu and Kashmir who are studying in recognized institutions outside these union territories.

Collaboration with IITs

- ❖ For the first time, students of Ladakh have got an opportunity to do internship and MTech in the country's premier educational institution Indian Institute of Technology (IIT). An MoU has been signed in this regard between the Department of Higher Education of the Union Territory of Ladakh and the IIT Group.
- ❖ Students of Ladakh will get valuable experience from IIT programs. It will also help them to explore various opportunities, develop their entrepreneurial skills and create new avenues for research and development. These programs for five years have been started in June 2022.
- ❖ An engineering college is proposed to be opened in Kargil with a view to increase the opportunities of technical education for the students of Ladakh. IITs have been approached to design its curriculum and advise on infrastructure, organizational set up and human resource requirements.

Skill Development in Ladakh

- ❖ Skill development and vocational education have been made an integral part of the National Policy on Education 2020. Steps are also being taken to strengthen and expand the skill development mechanism in Ladakh.
- ❖ Each of the two districts of Ladakh has an Industrial-Training Institute (ITI) and a polytechnic college. Training is being imparted in ITI keeping in view the present and future needs of skilled workers. They are being trained in 12 professions including fashion design and technology, information and communication technology systems management, computer operators and programming assistants, carpenters, electricians and plumbers.
- ❖ To strengthen the infrastructure of both the ITIs, new workshop buildings with state-of-the-art equipment are being constructed in them.
- ❖ To improve the quality of training in ITIs, it is necessary to improve the qualifications of the trainers. Several steps have also been taken in this direction. The payment to guest teachers has been increased by two and a half times. Apart from this, programs have also been run for the development of faculty and training of trainers.
- ❖ Keeping in view the needs of the area and the aspirations of the students, two new programs of Horticulture and Floriculture have been started to explore new opportunities. Cooperation is being done with the industry to synergize the supply and demand of skilled workers.
- ❖ Ladakh Skill Development Mission (LSDM) was formed in 2021. Its objective is to formulate and run programs under the Pradhan Mantri Kaushal Vikas Yojana and other skill development programs of various ministries. This will strengthen and expand the skill development mechanism in Ladakh in line with the National Skill India Campaign.
- ❖ The first skill fair was organized in this union territory in March-April 2021. Its objective was to provide opportunities to the youth of Ladakh for skill development and to find employment opportunities.
- ❖ The television and film-industry is developing in Ladakh. This may result in increased demand for skilled manpower in the beauty and health sector.
- ❖ A database of demand and availability of skills in Ladakh is being prepared through which industry, training institutes, training partners and youth will be brought on a single platform.

Apprenticeship

- ❖ Under the Apprenticeship Act, it is mandatory for all institutions with 30 or more workers to run apprenticeship programs and hire apprentices. The effective implementation of this law in Ladakh has happened only with the issuance of an order in June this year.
- ❖ The Apprenticeship Act gives opportunities to young people who have recently completed their graduation to gain experience. Under this law, the industry has been entrusted with the responsibility of providing job training to the youth who have passed out recently from colleges and ITIs. Students can earn money while acquiring the skills of their choice through apprenticeships.
- ❖ Small target has been set for Leh and Kargil due to start of apprenticeship in the year 2022-23. The targets for the coming years will be decided on the basis of progress in apprenticeship and feedback from the youth of the region.

Entrepreneurship Education

- ❖ In the National Education Policy 2020, emphasis has been given to include entrepreneurship teaching in education. A comprehensive project is being prepared to include entrepreneurship as a credit based subject in higher education institutions and ITIs in Ladakh.

- ❖ The Industries Department of this Union Territory has taken several steps. These include setting up of Ladakh Preparation Centre, training in leather goods making and exploration of Niyal market for fruits, handloom products and handicrafts.
- ❖ It has undertaken craft documenting and branding activities in collaboration with National Institute of Design (NID) apart from tying up with National Institute of Fashion Technology (NIFT). Efforts are being made to facilitate the buyers and sellers in collaboration with the Ministry of Commerce.
- ❖ Industries Department has taken cooperation of Khadi and Village Industries Commission for capacity building of pashmina weavers and creation of brand Ladakh, besides organizing Commerce Week and Entrepreneurship Development Conference.

Digitization

- ❖ School education in M&K is spread over 200 education zones and 200 regional resource centers and 800 cluster learning areas. There are 14,171 Primary Schools, 6,665 Upper Primary Schools, 1,194 High Schools, 597 Higher Secondary Schools, 2 Sainik Schools, 22 District Educational Institutions and 2 State Educational Institutions and 97 KGBVs in this Union Territory.
- ❖ Due to the pandemic in 2020, the education system all over the world was forced to shut down all of a sudden. In such a situation, schools in Jammu and Kashmir also had to be closed and instead of studying face to face, the option of teaching children through online system was adopted.
- ❖ The Directorate of School Education, Jammu, has launched a new project named 'Directorate of School Education Jammu Home Classes' with an aim to ensure that the children continue their education even during the global pandemic.
- ❖ Google forms were created and sent to teachers and they were invited to contribute to the home classes. Various applications like 'Google Meet, Zoom, Facebook, WhatsApp and Telegram' were used to implement these digital initiatives. The government started many more during the Covid-19 in Jammu and Kashmir. These are the first:

Simple, Android App:

- ❖ SARAL i.e. Student Access Resource and Learning Application (App) was developed by IT Wing (Information Technology Branch) of Directorate of School Education, Jammu with the concept of 'All-in-One' i.e. 'Everything in one'.
- ❖ This app connects students to e-content which is available on various education portals like Diksha, e-Pathshala, Say e-Vidyadan and Swayamprabha. It also engages students with locally developed e-content, live classes, activities and online assessments.
- ❖ The e-content was created by several well-trained subject matter experts. Through this, students can also read the text books prepared by the Jammu and Kashmir Board of School Education (JKBOSE). This app is available on Google Play Store under the name 'Saral DSEJ Online Education'.

School Tracking and Monitoring System 'Aadharshila':

- ❖ Aadhar Shila is a web-based system designed and developed by the Directorate of School Education, Jammu. Its objective is to implement digital system in all government schools of Jammu division. This web-based system helps in assessing the infrastructure, teachers and their proficiency in teaching work.
- ❖ Information about students of all government schools is available in this web portal. From this information, the teacher-student ratio, category wise details of students, scholarship details, complete information of students without Aadhaar details, etc. is known. This makes it easier to plan ahead and take policy decisions.
- ❖ School-wise details of state and district level financial assistance are also available on this web-based portal. The web address of this portal is Samadhan: Samadhan is a system of online grievance redressal which aims

to make the delivery mechanism transparent and improve the delivery mechanism, especially of school education.

- ❖ The system was designed by DSE and developed by National Notification Center (NIC). Parents, students and teachers can send their complaints through this system. These complaints are sent to the concerned authorities for hearing and disposal.

J&K Education Hub:

- ❖ J&K Education Hub i.e. J&K Education Hub is a web-based system of Shikshak digital content developed by teachers of government schools. The excellent material available on this is selected and sent to national level portals like Diksha.
- ❖ This portal was launched with the aim of making online/distance education easy to access. Students and teachers can access all digital resources from this portal alone. There is a special section in this portal which shows the achievements of teachers and students.
- ❖ e-Office of Directorate of School Education, Jammu The Directorate of School Education, Jammu had opened e-office with the objective of making the office functioning systematic and transparent. NIC had started this e-office with the aim of making the office work paperless i.e. completely digital.
- ❖ This system was adopted to increase accountability and efficiency in view of digitization of files. The movement of files is done through a digital platform so that the status of the file can be tracked.
- ❖ System of Management of Private Schools Web-based system is also applicable in the management of private schools. This is applicable for all private schools whether they are run under any board of JKBOSE, CBSE or ICSE. In this system, there is also a system to give permission for registration and up-gradation of private schools online.
- ❖ This initiative is currently being developed and is expected to be completed soon. As part of 2 Digital Initiatives, DSE Jammu observed 'Digital Jammu and Kashmir Week' from 25th to 31st July, 2022 with special emphasis on highlighting the digital initiatives taken by the Government in digitizing Jammu and Kashmir. The Government of Jammu and Kashmir is adopting unique digital initiatives to speed up the education system and bring more transparency in it.

Beyond The Sky

- ❖ Indian Space Research Organization has established several institutes in different parts of the country to understand space science and its applications. They include Jammu and Kashmir where the Satish Dhawan Space Science Center (SDCSS), an advanced space research center in collaboration with ISRO and the Central University of Jammu, has been set up.
- ❖ Establishment of SDCSS at CUJ is a significant achievement for J&K being its major center in North India. This center will help in harnessing the potential of space applications for the region and will provide an opportunity to the youth to contribute to the development of the nation along with space science.
- ❖ The scope of space applications is particularly relevant to Jammu and Kashmir and the Greater Himalayan region as its economy and habitat are influenced by vegetation cover, forest cover, snow, landslides, avalanches, groundwater, cloud cover, atmospheric conditions, etc. It can be easily monitored from space through remote sensing.
- ❖ The Remote Sensing and GIS laboratories located at this center are helpful in assessing the status and forecasting of air pollutants and particulate matter.
- ❖ Also she explores temperature reversals and their relationship with atmospheric stability and performs mesoscale modeling of weather events of Jammu and Kashmir using mesoscale atmospheric models and 3D-VAR data assimilation techniques.

- ❖ The need to strengthen the ground-based observational capabilities of the region for meteorological and atmospheric research is also of utmost importance in view of the frequent natural calamities in the region.
- ❖ CUJ's Satish Dhawan Space Science Center will have facilities for geospatial data analysis that will help in planning for sustainable use of natural resources and land-use patterns. It will have ground-based observation facilities for atmospheric studies.
- ❖ It will have a research laboratory for astrophysics and atmospheric sensing, besides a glacier study laboratory for better utilization of large amounts of water stored in the form of seasonal snow, ice and glaciers in the rivers of North India.
- ❖ Disaster Management Center will also be set up here which will conduct research on various disasters like floods, landslides, forest fires, drought and climate change in Jammu and Kashmir region.
- ❖ The center is also playing an important role in exploring the diverse impacts of bioaerosols on the climate and ecosystem composition in the region around Jammu and Kashmir.
- ❖ SDCSS is the first of its kind institute established in Jammu and Kashmir. The center offers a vast range of innovative approaches to education in the field of space science.
- ❖ More employment opportunities will be created for the educated people of Jammu and Kashmir with special needs benefiting from assistive technology.

Hanley Space Observatory

- ❖ Pak Recent study states that Indian Astronomical Observatory (IAO) located at Hanle near Leh AK in Ladakh is becoming one of the most promising observatory sites globally.
- ❖ This is due to its advantages such as clearer nights, less light pollution, liquid droplet concentration in the air, extremely dry atmospheric conditions and undisturbed by precipitation.

Astronomers are constantly searching for suitable locations around the world to build their upcoming large telescopes based on local meteorological data collected over many years. Such studies are important in planning future observatories and forecasting how they will change over time.

- ❖ **Researchers from India and their collaborators conducted a detailed study of the nighttime cloud agglomeration in eight high altitude observatories, including three in India, namely the Indian Astronomical Observatory (IAO) located at Hanle r Mark (Ladakh) and Devasthal (Nainital) .**
- ❖ **Selection of Digpa-Ratsa Ri, Hanle as the meeting site for the National Observatory for the Study of Meteorological Conditions on the Indian Subcontinent, the Study of Topographical Maps of High Altitude Areas in the Himalayas and the Trans-Himalayan Region as well as in September 1993 This was followed by a reconnaissance survey of six potential sites.**
- ❖ **In addition, in January and June 1994, scientists and engineers of the institute visited the site. The Permanent Site Survey Camp was established in December 1994 at the tip of the Nilamkhul plain, north of Digpa-Ratsa Ri. Detailed construction of the site began in January 1995 and continues to this day.**
- ❖ **The highest peak of Digpa-Ratsa Ri is at a height of 4517 meters and is named as Saraswati Parvat. The surrounding Neelamkhul plain area is at an altitude of 4240 meters above sea level.**
- ❖ This range is 2 km. East-West and 1 km It extends from north-south, whose apex is about half a square kilometer. is a flat area. The peak has some rocky mounds which have been levelled for a few meters. The two-metre width Himalayan Chandra Telescope (HCT) is located to the east of the summit at an altitude of 4500 m above MSL.
- ❖ After examining several years of data on various astro-climatic parameters, the Indian Institute of Astrophysics (IIA) installed the Himalayan Lunar Telescope (HCT) with 2-meter aperture at the Indian Astronomical Observatory (IAO), Hanle in 2000.