

BRIEF REPORT OF **J&K SCIENCE, TECHNOLOGY & INNOVATION COUNCIL**



Upcoming Sub Regional Science Center at Srinagar



Alok Kumar (IRS)
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ABOUT US

J&K Science, Technology & Innovation Council (erstwhile J&K Council for Science & Technology) was established during the year 1989 under Department of Science & Technology J&K government, with the objective of promotion and dissemination of science, technology and innovation in the UT of J&K, Science & Technology innovation council also plays role of a nodal Department for organizing and promoting S&T activities across the length and breadth of J&K.

MANDATE

Promotion of Research & Development and innovation through Universities / R&D labs with special emphasis on emerging areas in S&T, Science Popularization among the student community, encourage students through award of scholarships, confer Young Scientist Awards (YSA) & Young Scientist Fellowships (YSF) to the scientists/ academicians.

The broad objectives of JKST&IC are:

- Coordination and integration of areas of Science & Technology having cross-sectoral linkages in which a number of institutions and departments have interest and capabilities.
- Promote innovation and encouragement of novel ideas through R&D / premier institutions like NIT/ IIT etc, facilitate innovators for taking their innovation forward by providing financial support under seed money.
- Promote awareness on Patents / Intellectual Property Rights (IPR).
- Promote transfer and dissemination of new and relevant Technologies in diverse fields like industry Agriculture, Horticulture, Rural Development, IT Research and Education.



Dr Nasir Shah
Additional Director (JKST&IC)





Industrial biotechnology park at Handwara, Kashmir

ESTABLISHMENT OF INDUSTRIAL BIO TECHNOLOGY PARKS

Department of Bio-Technology, Ministry of Science and Technology has sanctioned two Industrial Bio-Technology Parks (IBTPs) during FY.2018-19, post creation of Biotechnology Society in 2016 at an Estimated cost of Rs 8466.00 lakhs (IBTP – Jammu = Rs.4200.00 lakhs, IBTP-Kashmir = Rs.4266.00

lakhs) on (70:30) sharing basis of funds. The Industrial Biotechnology Parks are being established at Ghati, Kathua & Handwara, Kashmir with Indian Institute of Integrative Medicine (IIIM)-CSIR Jammu as its knowledge partner and NPCC has been nominated as the construction Agency for both the parks by Project



Biotechnology Park at Gathi Kathua Jammu

Monitoring Committee (PMC).

The parks shall be commissioned during the year 2022.

The Bio Technology Parks shall provide impetus to the Researchers, Scientists, Innovators, Entrepreneurs, Enterprises to convert their research/ idea into the products and services by providing necessary infrastructure support accelerated commercial growth,

shall promote the conservation, cultivation, processing and commercial exploitation of rare Aromatic and Medicinal plants reserves in J&K, help the growers, farmers on value addition of the Bio products, market linkages and post-harvest management of the Aromatic and Medicinal products besides generating employment opportunities in UT of J&K.



ESTABLISHMENT OF DEMONSTRATION FARMS, PROJECT K-5000

The Establishment of Demonstration Farms of Aroma Cash Crops Project K-5000 in District Kupwara was sanctioned during the FY.2017-18 at an estimated cost of Rs.500.00 lakhs. Under the Project sanction was accorded for cultivating and setting up of Demonstration farms of Medicinal and Aromatic Plants on Community

owned/ Kacharai land in the District Kupwara. At present ,1500 kanals of land has been brought under the cultivation of different Aromatic and Medicinal crops. This project is a joint venture between CSIR – Indian Institute of Integrative Medicines (IIIM) Jammu and J&K Science, Technology and Innovation Council on 50:50 share basis.



INSTITUTE OF HUMAN GENETICS (HUMAN GENETIC RESEARCH CUM COUNSELLING CENTRE) JAMMU/ SRINAGAR



ESTABLISHMENT OF SUB- REGIONAL SCIENCE CENTRES (SRSC) SRINAGAR

- Sub-Regional Science Centre, Srinagar is being established at Lal Mandi, Jawahar Nagar, Srinagar at an estimated cost of Rs.1820.00 lakhs on (90:10) sharing basis between Ministry of Culture & JKST&IC . At present, the process of development of site / land measuring 24 Kanals is going on.
- The objective of the Science Centres is to create a scientific temper among our citizens, generate interest of science among general public at large & students in particular, preserving the Science & Technology heritage of the country, supporting curriculum based education at school , college , University level by imparting teachers training,encouraging inquisitive minds to inculcate innovative ideas, display & demonstration of progress & achievements in various fields of science & technology, learning to Do, Learn through Fun have been chosen as mode of learning & to organize various educational programmes for the benefit of students, teachers & society.



NEW INITIATIVES





- **ESTABLISHMENT OF RESEARCH INSTITUTE FOR CLIMATE CHANGE & ENERGY (A CENTRE OF EXCELLENCE)** with an aim to Generate and Disseminate Research & Independent Holistic Information & Opinion on CLIMATE CHANGE & ENERGY ISSUES.
- **ESTABLISHMENT OF PATIENT INFORMATION CENTRE IN COLLABORATION WITH DST, GoI.**
- **ESTABLISHMENT OF WOMEN TECHNOLOGY PARKS IN COLLABORATION WITH DST, GoI,** Where all necessary support is made available to Women form a single platform for improving the livelihood through application of Science & Technology.
- **ESTABLISHMENT OF INSTITUTE OF FORENSIC SCIENCES** with an aim to educate and train students through Graduate/Post-Graduate/ Doctorial Degrees and Short-Term Training Programmes, currently JKUT does not have any such facility/institution available. The Proposed Centre shall be joint venture of JKST&IC, DST, GoI & Universities of JK.
- **BUILDING HUMAN RESOURCES AND LABORATORY INFRASTRUCTURE** for preparing Youth of J&K with Science & Technology background for absorption in industries in the field of Electronics System Design & Manufacturing-System on Chip. In this regard, matter has been taken up with IIT-Jammu, Mumbai, CII, various colleges under higher Education and DST, GoI.



Govt. of Jammu & Kashmir
J&K Science Technology & Innovation Council
Department Of Science & Technology

List of few sites under Aroma Crops in UT of J&K

As per the data available, the total land Area/crop wise under cultivation of Aromatic and Medicinal plants for the current Financial Year is as under

Sr. No.	Area	Land under Cultivation	Standing Crop
1	Gonipora	65 Kannals	Rose (Damascene)
2	Machipora	25 Kannals	Lavender(Lavendula Officinalis)
3	Bahadurpora	25 Kannals	Lavender
4	Riangpath	15 Kannals	Lavender(Lavendula Officinalis)
5	Natnusa	130 Kannals	Lavender(Lavendula Officinalis)
6	Tangchack	10 Kannals	Lavender(Lavendula Officinalis)
7	Nagri	25 Kannals (Site A and B)	Lavender (Lavendula Officinalis)
8	Dedikoot	25 Kannals	Lavender(Lavendula Officinalis)
9	Harai	500 Kannals	Lavender(Lavendula Officinalis)
10	Kakroosa	194 Kannals	Lavender (Lavendula Officinalis)
11	Waisa Kawnar	20 Kannals	Lavender (Lavendula Officinalis)
12	Lanchanpora	130 Kannals site A	Lavender (Lavendula Officinalis)
13	Lanchanpora	25 Kannals Site B	Lavender (Lavendula Officinalis)
14	Kutlari	25 Kannals	Lavender (Lavendula Officinalis)
15	Hampora	05 Kannals	Lavender (Lavendula Officinalis)
16	Warpora	35 kannals	Lavender (Lavendula Officinalis)
17	Shogpora	30 Kannals	Salivia Sclarea

Estimated value of cash crops

Sl.	Name of Crop	Yield/ Hectare	Extracted Oil/ Hectare	Minimum cost of oil p/l
1	Rose (Rosa damascene)	10-15 quintal	1 kg	Rs 8,00,000-00
2	Lavender (Lavandula officinalis)	50-60 quintal	50-60 kg	Rs 10,000-00
3	Clary sage (Salvia sclarea)	30-35 quintal	20-25kg	Rs 5,000-00
4	Tagetes (Tagetes minuta)	80-100 quintal	35-40 kg	Rs 7,000-00



Lavender

Revolution in Jammu and Kashmir

An initiative of J&K Science Technology & Innovation Council

Establishment of Demonstration Farms
of Aroma Cash Crops in the UT of J&K



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Introduction

The farmers from hills and Mountains of frontier District of Kupwara suffer from inherent constraints of Remoteness, Inaccessibility, Marginality and Fragility, Short Growing season, poor productivity, poor production Management, labour shortages, poor post-harvest Management etc. Agriculture overtime has also become relatively less remunerative profession due to low yields, with new generation of farm youth shying away from Agriculture and looking for urban centric vocations. The farming Community of the District Kupwara as in the rest of country are facing tough times to earn sufficient economic returns with traditional farming and crops, as the global Warming has taken severe toll on Agricultural productivity.



Lack of infrastructure, Illiteracy, poor irrigation sources, traditional and less remunerative cropping system are the major problems of the target farmer community. Farmers receive only 10% to 20% of the consumer price from traditional crops. Besides a serious trend of Converting Agricultural land holding to non-agricultural sectors due to poor profitability is posing a serious threat to Agricultural production and sustainability, as **the income per kanal from the traditional crops like Wheat/ corn would fetch an amount of Rs 4000-Rs 5000 against Rs 15000 to Rs 20000 from the cultivation of Aromatic/ Medicinal plants.**

The project K-5000 is a flagship initiative of JKST&IC in collaboration with CSIR-IIIM Jammu wherein the cultivation, processing and utilization of Lavender, Rose, Salvia, Tagetus, Mints and other high value aromatic and medicinal crops, Development of extraction/ processing infrastructure, capacity building and skill development was being carried out through "Establishment of Demonstration Farms for Cultivation of Aromatic Crops" over the un-cultivated/unutilized Kah-charie (UT Graze land), State land and property land at different remote locations in the District over a period of 03 years initially. Cultivation Processing and value addition of these crops based on CSIR-IIIM technologies will also provide



an alternate crop to the farmers for adoption in the existing cropping systems for increased income generation and employment opportunities besides Developing of sustainable agri-business model for prospective Entrepreneurs, Indigenous supply source of raw material for Food, Flavour, Cosmetic, Therapeutic and Essential oil industry. Globally essential oils constitute multi-billion dollar business and the Natural Aroma Sources having greater acceptability to the industry have tremendous potential to give a quantum leap to the Aroma Business.

Co - relation between Industrial Biotechnology Park, Handwara and Project K-5000

Industrial Biotechnology Park, Handwara is being established by Department of Biotechnology, Ministry of Science and Technology, Govt. Of India in collaboration with JK science , Technology and Innovation Council (JKST&IC) to:

- To utilize the Medicinal and Aromatic plant Bio-resources available in the State.
- To create core technology, infrastructure to enable setting-up of new industries in the UT based on unique bio-diversity (Medicinal and Aromatic Plants), protein therapeutics, vaccines and fermentation products to incentivize and support.
- To incentivize and support start-up companies for incubation and development of Innovative high growth and knowledge based business in Medicinal and Aromatic crop sector.
- To ensure human resource development leading to the Entrepreneurship Development.
- To promote setting-up of Biotechnology and industry ventures.

Project K-5000 and IBT, Handwara

for development of Kupwara as the hub of Aroma Sector in J&K. The Project K-5000 and Industrial Biotechnology Park at Handwara will complement in the creation of an industrial ecosystem in the District. The production of the huge Quantity of Biomass, Raw Material, Essential oil of different Aromatic Crops in the Project K-5000 and by the farmers of the District involved in the cultivation of the target crops will be processed for its value addition for production of different Products, packaging and storage at IBT Park, Handwara. The raw material generated at project sites will require quality analysis and quality assurance certification to attract the industry, and the facilities for such certification will be developed at IBT Park. IBT Park will serve as incubation center for the farmers, entrepreneurs and start-ups for Marketing and value Chain Management. The dissemination of the production, processing, post-Harvest Management, value addition, product Development technologies of the different target crops in the Project K-5000 will be imparted to the students, farmers, Agri-Entrepreneurs through skill Development and capacity building at Industrial Biotechnology Park.

