#### No. DSIR/MS/2022/04

Government of India
Ministry of Science & Technology
Department of Scientific & Industrial Research
MONTHLY SUMMARY FOR THE CABINET
(For the month of **April**, **2022**(Part-I Unclassified)

### Major achievements during the month of April, 2022:

Council of Scientific & Industrial Research (CSIR)

### New Technologies/Processes Developed/Transferred

- CSIR-CSMCRI developed a device containing metathesis electrodialysis stack for the production of potassic fertilizer with high yield and purity. A method for preparation of activated carbon from carbonaceous residue derived from the process of manufacturing sodium silicate from rice husk ash was also developed.
- CSIR-CFTRI transferred the technology for Dehydration of coriander foliage to M/s Landcraft Agro LLP, Kolhapur, Maharashtra.
- CSIR-CFTRI transferred the technology for Online fortification of atta (whole wheat flour)/ Maida (refined wheat flour) to M/s Nutrivate Pvt Ltd Kalyan, Thane, Maharasthra.
- CSIR-CMERI transferred the technology for Vehicle Mounted Drain Cleaning System technology to M/s KAM AVIDA Enviro Engineers Pvt.Ltd.,Pune, Maharashtra (Medium Enterprise).
- CSIR-CSIO transferred the technology for UV Disinfectant retro-fit systems for HVAC Ducts to Versatile Machine Inc., Baddi.
- CSIR-IICT transferred the technology for validation of CSIR-IICT catalyst for the oxidation of mesitylene to produce 3,5-dimethyl benzoic acid(DMBA) to Shiv Pharmachem, Vadodara, Gujarat.
- CSIR-NIIST transferred the technology for Plant oil based Bio-resin synthesis for paper coating & Production of Bio based packaging materials from agro residue and further development and optimisation of material quality and production process to M/s Varsya Eco Solutions Pvt Ltd, Kazhakoottam

### Collaborations/Agreements/MoUs Signed (National)

• The Chief Minister of Gujarat, Shri Bhupendra Patel presided over the MoU signing between the Government of Gujarat's flagship technology incubator - iCreate (International Centre for Entrepreneurship and Technology) and the Council of Scientific and Industrial Research (CSIR). Under the MoU, CSIR and iCreate intend to establish a collaborative support system for promising tech start-ups by making combined resources available for entrepreneurs and innovators in the country. The partnership will also catalyse scientific innovation and the marketability of high-tech start-ups. iCreate will help set up new incubators at identified CSIR labs. Such start-ups will access CSIR's

- equipment, facilities, and scientific manpower. CSIR will provide intellectual property support and explore methods of financially supporting innovative start-ups from India to boost emerging entrepreneurs.
- A MoU was executed between CSIR-CDRI and IIT, Goa on 04 April 2022 to promote institutional linkage between CSIR-CDRI and IIT-Goa to evolve possible collaborative research programs in specific fields of interest.
- A Sponsored Agreement executed between CSIR-CDRI and Venus Remedies Limited, Haryana on 13 April 2022 for "NMR studies and Molecular Dynamic simulations of non-covalent interaction of API and Excipients of its research product (VRP-034)".
- A MoU on "Architectural Glass Research and Testing (AGRT) Facility" was signed between CSIR-Central Glass & Ceramic Research Institute and Glazing Society of India on 26 April 2022.
- A Tripartite Agreement was signed among Mahanadi Coalfields Limited, Sambalpur, Odisha; NLC Tamilnadu Power Ltd., Chetpet, Chennai and CSIR-CIMFR, Dhanbad for Coal Sampling Work on 07 April 2022.
- A MoU was signed between CSIR-CIMFR, Dhanbad and Kazi Nazrul University, Asansol on 21 April 2022.
- A MoU was signed between CSIR-CMERI, Durgapur & SAIL, RDCIS Ranchi on 22 April 22 for promoting collaborative R&D through utilization of research facilities & infrastructure of both the organizations for value-added utilization & management of wastes from steel industries & allied areas.
- A license agreement signed between CSIR-CMERI, Durgapur and M/s KAM AVIDA Enviro Engineers Pvt. Ltd., Pune, Maharashtra (Medium Enterprise) on technology transfer of Vehicle Mounted Drain Cleaning System technology.
- A MoU was signed by CSIR-CRRI Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat on 05 April 2022 for academic and technical collaboration.
- CSIR-IHBT singed MoU with the following for installation of cold storage unit under CSIR-Floriculture Mission:
  - Friends Farmer Welfare Club VPO Nanowal, District Fatehgarh Sahib, Punjab on 06 April 2022.
  - Flower Growers Social Welfare Trust Nayagaon Chandan Singh, Kaladhungi, Kaladhungi, Kamola, Nainital, Uttarakhand on 06 April 2022.
- CSIR-IICT signed the following MoUs:
  - Technology transfer of Process Know-how for making MF59 (Squalene o/w nano emulsion adjuvant) to Sapigen Biologix Ltd.
  - Evaluation of the efficacy of test compounds against MPTP induced experimental Parkinsonism in mice for Sun Pharmaceuticals Ltd.
  - Process knowhow for Brinjal Fruit and shoot borer pheromone molecules for KR Lifesciences, Kolkata.
  - 19F NMR Based Investigations of Difluprednate Ophthalmic Solutions for Amneal Pharmaceuticals.
  - Consultancy services for Validation of the analysis of N-Butyl Cyanoacrylate for IBC Pharmaceuticals.

- Advisory consultancy in the area of solid state forms of chemical compounds to UPL Limited."
- CSIR-IIP signed the following MoUs:
  - Development of Adsorptive Separation Process, Specifically Pressure Swing Adsorption(PSA), Vacuum Swing Adsorption (VSA) with Sud Chemie India Pvt Ltd., New Delhi on 18 April 2022
  - NDA on Manufacture of Biodiesel Plant using CSIR-IIP's Room Temperature Process for Biodiesel from Used Cooking Oils/Non-edible Oils with KNP Arises.
  - Licensing Agreement on Improved Domestic Burner for PNG with Sanmati Home Appliances, Delhi on 21 April 2022.
- CSIR-NBRI signed a Memorandum of Agreement signed on 29 April 2022 with Department of Biotechnology (DBT), Ministry of Science and Technology, Govt. of India, New Delhi for the project entitled "Rapid composting of rice straw in field for crop residue management in rice wheat cropping system through microbial intervention".

#### CSIR-NIIST MoUs:

- Fermentation and scale up trials of melanin production-M/s Avisa Biotech Pvt Ltd, Mumbai
- Plant oil based Bio-resin synthesis for paper coating & Production of Bio based packaging materials from agro-residue and further development and optimisation of material quality and production process -M/s Varsya Eco Solutions Pvt Ltd, Kazhakoottam.
- Pilot scale feasibility trials on bioethanol production from Starch-M/s SPAC Starch Products(India) Pvt Ltd, Erode.
- Prospecting iminisugars from tubers of Kerala :identification, isolation, characterization and their role in glycemic control and antiinfection -Amala Cancer Research Centre, Thrissur
  - Process development and validation of Kaolin clays and industrial products for Niche market M/s Narmada Kaolin Pvt Ltd, Pratap Nagar, Vadodara
  - Effects of exosomal micro RNAs isolated from tender and mature coconut water on gut health and microbiome dynamics- Coconut Development Board (CDB), Ernakulam
  - Performance assessment for 10 Inoculum samples-Suchitwa Mission, Thiruvananthapuram
- CSIR-NML: Development of a Process for recovery of nickel and copper from Monel Metal, Colour Chromes Pvt Ltd, Hyderabad

### **Collaborations/Agreements/MoUs Signed (International)**

 CSIR-IHBT signed a MoU for development of new drugs for the treatment of neglected tropical and viral diseases with Drugs for Neglected Diseases initiative (DNDi) 15, chemin Camille-Vidart, 1202, Geneva, Switzerland on 08 April 2022.

## **Patents Update**

Patents Filed		Patents Granted		Patent Prosecutions	
India	Abroad*	India	Abroad*	Indian	Foreign
13	03	10	06	22	105

<sup>\*</sup>Data reported to IPU during the said period and may increase later during national phase entries

### **High impact S&T services offered**

- CSIR-IHBT distributed 30 kg seeds of the aromatic marigold variety Him Swarnima to Farmalogist Essence the farmers of Champawat, Uttarakhand on 20th April, 2022 under Aroma mission phase-II.
- CSIR-IHBT distributed 50 kg seeds of the aromatic marigold variety Him Swarnima to the farmers of Himalayan Phytochemical & Growers Association, Baggi, Mandi, HP on 27th April, 2022 under Aroma mission phase-II to cover 225 bigha land of Mandi district. This will benefit more than 100 farmers.
- CSIR-IIP:
  - Testing services offered under various ongoing projects of the institute, industrial clients and AcSIR activities. These tests include gaseous fuels (ASTM D7833, D5504), liquids fuels (D6730, UOP744, D5623, D4815, D6584 and IP 391), engine oils(ASTM D3524, D3525), lubricating oils(ASTM D7419), waxes (ASTM D5442), GC-MS and HRMS of petroleum fuels and general chemicals.
  - 1250 litres of sustainable aviation fuel (SAF) was dispatched to IAF, Bengaluru.
- CSIR-NML carried out Metallurgical Failure Investigation of Horizontal Web Plate Girder of Gates of Farakka Barrage.

### **Outreach Activities (Jigyasa, Skill Development, and others)**

- A 'Student Motivation program' under 'Jigyasa' was held on 19 April, 2022.
   Ninety students and seven faculty of Guru Gorakshnath Institute of Medical Sciences, Gorakhpur (UP) participated in the program at CSIR-CDRI, Lucknow.
- A 'Student Motivation program' under 'Jigyasa' was held on 22 April, 2022.
   Fifty three students and four faculty from Spectrum Hi Pharmacy College,
   Sultanpur (UP) visited CSIR-CDRI and interacted with Scientists.
- CSIR-CECRI organized the following programmes:
  - One-week Skill Development Training Program (Online) on Industrial Wastewater Treatment Technologies during 04 to 08 April 2022. There were 250 participants
  - JIGYASA Webinars
    - Batteries: Concepts to Applications on 7 April 2022
    - Metal Air Batteries: Futuristic Energy Storage System on 18 April 2022
    - Food Contaminants on 21 on 2022
  - Under JIGYASA, a career guidance event for the student community was held on 12 April 2022.

- CSIR-CGCRI organized JIGYASA: Student Scientist Connect Programme on 26 April 2022 for Lady Brabourne College, Kolkata.
- CSIR-CIMFR organized a Coal Art & Craft: Skill Development for Rural Woman on 06 April 2022
- CSIR-CMERI organized Skill Development Programmes on:
  - Analytical Techniques & Instrumentation for Water Quality Assessment for college students from 27 to 29 April 2022.
  - Finite Element Analysis of Structural Components for working professionals in industry during 25 to 29 April 2022.
- CSIR-CSIO conducted an online JIGYASA Lecture on 29 April 2022 on the topic 'Laser and its Applications in Sensing'.
- CSIR-IHBT organized he following programmes:
  - In association with the Human Life Reformation and Capacity Building Society (HLRCB), Soreng, CSIR-IHBT conducted a one-day awareness cum training programme on "Aromatic crops suitable for diversification and livelihood generation" in the aspirational Distt. West Sikkim on 6th April, 2022. More than 25 women farmers, members of SHGs, Panchayat members, farm supervisors attended the program.
  - In association with HP Agro Industries Corporation Ltd., Shimla, CSIR-IHBT conducted a one-day training cum awareness program on aromatic crops under CSIR Aroma mission phase II at Khari Bahi, PO Kareri, Distt. Kangra, HP on 6th April, 2022. More than 20 farmers attended the program. The farmers were made aware about CSIR Aroma mission activities and crops suitable for cultivation in their village. The seeds of Aromatic marigold were also distributed to the farmers.
  - o In association with the Mani Trust (NGO), Kalimpong, West Bengal, CSIR-IHBT conducted four training-cum-awareness programs in Darjeeling, WB on 7 and 8April 2022. More than 200 women farmers, member of SHGs, Panchayat members participated in these programs. Participants were made aware about CSIR Aroma mission, aromatic crops, and their cultivation practices and marketing.
- CSIR-IICT organized a 2-week Skill Development Training on High End Skilling Workshop for Researchers on Application of Tools, Techniques and Databases in IPR Protection and Commercialization for M.Sc and Ongoing Ph. D students from 11 to 22 April 2022. Seventeen participants attended the programme and benefitted from the same.
- CSIR-IICT organized a one week online Analytical Skills Development Course (ASDC)-2022 on the off-site analysis of chemical weapons convention related chemicals rom 25-29 April 2022. This course was sponsored by the OPCW, The Netherlands. Twenty international participants from 19 countries (Botswana, Morocco, Iraq, Uganda, Malaysia, Pakistan, Tunisia, Nigeria, Thailand, China, Sri Lanka, Bangladesh, Algeria, Seychelles, Cameroon, Namibia, Burkina Faso, Sierra Leone, Syrian Arab Republic) participated in the programme."
- CSIR-IIIM organized a one day awareness and distribution programme of Quality planting material of Ornamental plants under CSIR-Floriculture Mission

- for different schools and colleges on 07 April 2022 held at CSIR-IIIM, F/S Bonera, Pulwama. One hundred and four participants from three colleges and four schools took part in the programme.
- CSIR-NIIST organized a Skill Development Course on "Techniques of phytochemical profiling and characterization"

## Major conferences, seminars/webinars organized

- National Corrosion Council of India & CSIR-Central Electrochemical Research organized Corrosion Awareness Day 2022 on 21 April 2022.
- CSIR-IHBT organized a National Awareness Programme entitled "Intellectual property rights (IPRs) patent, designs, trademarks, copyrights and geographical indications under national intellectual property awareness mission (NIPAM)" in association with the office of Controller General of Patents, Designs and Trade Marks, Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Government of India. The students and staff were enlightened on different kinds of Intellectual Property Rights (IPRs). More than 100 participants participated in this programme. During the event, Ms. Sumit Choudhary, NIPAM Officer and Examiner of Patents & Designs, O/o CGPDTM, New Delhi made an elaborate presentation on the subject.
- CSIR-IHBT conducted a one day workshop on POSHAN MAITREE—A programme for way forward in combating protein and micronutrient malnutrition on 25 April 2022 at CSIR-IHBT, Palampur.
- A one day Workshop on "Dehydrated Floral Craft for Value Addition in Floriculture" was organized by CSIR-IIIM, Jammu in collaboration with CSIR-NBRI on 25 April 2022. Fifty five participants took part in the programme.
- CSIR-NML organized a Webinar on "Role of IPR in innovation ecosystem" hosted on 26 April 2022.

### Visit of high level dignitaries to CSIR Institutes/Laboratories

- Dr. C.N. Ashwathnarayan, Hon'ble Minister for Higher Education, IT & BT, Science & Technology and Skill Development, Entrepreneurship & Livelihood, Govt. of Karnataka visited CSIR-CFTRI on 7th April 2022.
- A Malaysian delegation from Ministry of Science, Technology and Innovation (MOSTI), consisting of Secretary General and his team, visited CSIR-IHBT on 04.04.2022.
- Hon'ble Minister of Foreign Affairs of Mexico along with the delegation from Mexico visited CSIR-IICT on 4th April 2022 to explore the possibilities of cooperation in scientific exchange programs in mutually interested areas.
- The BioNEST Bioincubation Centre was inaugurated by Dr. Jitendra Singh, Hon'ble Minister of State (Independent Charge) Ministry of Science & Technology and Earth Sciences at CSIR-IIIM, Jammu on 23-04-2022. The biotech incubator is supported by BIRAC DBT, Govt of India. The incubator will give more credibility and nationwide opportunities to local entrepreneurs of Jammu & Kashmir to avail the services and facilities provided by CSIR-IIIM, Jammu & BIRAC through their established networks.

- Dr. Jitendra Singh, Hon'ble Minister of State (Independent Charge) Ministry of Science & Technology and Earth Sciences visited CSIR-IIIM on 22-04-2022 and chaired the review meeting to give final touch to the Science & Technology exhibition at Palli village in Jammu.
- Smt Vandana Chavan, Member of Rajya Sabha, Smt Rajani Ashok Rao Patil, Member of Rajya Sabha and Shri Dhan Singh Rawat, Hon'ble Minister of Education, Coopeative and Health, Government of Uttarakhand and Shri Pushkar Singh Dhami, Hon'ble Chief Minister of Uttarakhand visited CSIR-IIP.
- Shri Brajesh Pathak, Hon'ble Deputy Chief Minister, Government of Uttar Pradesh and Shri Asim Arun, Hon'ble Minister of State (Independent Charge), Social Welfare Department, Government of Uttar Pradesh visited CSIR-NBRI on April 12, 2022 to inaugurate Bougainvillea Festival and Summer Plant Science Fest-2022

### **COVID** related developments

• CSIR-IHBT conducted under PAN-CSIR Sero-surveys. COVID-19 samples testing for Kangra district of Himachal Pradesh continued.

# Details of events celebrated to mark India@75 or Azadi Ki Amrut Mahotsav / 75 Years of Indian Independence

- A webinar on IPR Awareness Programme by the NIPAM (National IP Awareness Mission) O/o the Controller General of Patents Design & Trademarks, Dpt. for Promotion of Industry and Internal Trade, Govt. of India, in association with CSIR-CDRI was organized on World Intellectual Property Day on 26 April 2022.
- The Society for Advancement of Electrochemical Science and Technology (SAEST) functioning in the premises of CSIR-CECRI, Karaikudi has initiated a monthly Lecture Series on 'Electrochemical Science and Technologies: A Path Forward to Sustainable Society' in commemoration of Azadi Ka Amrit Mahotsav and CSIR-CECRI@75. Prof. M.V. Sangaranarayanan, Professor Emeritus, Dept. of Chemistry, Indian Institute of Technology Madras, Chennai delivered a Lecture on "Phase transitions at Electrochemical Interfaces" on 28 April 2022)
- CSIR-CSMCRI organized a webinar on "Science and Health for Young Minds" on 07.04.2022 under the banner of CSIR-Jigyasa & Azadi Ka Amrit Mahotsav.
- CSIR-IHBT in collaboration with Office of the Controller General of Patents, Designs & Trade Marks, Ministry of Commerce, GOI, New Delhi conducted awareness programme entitled "intellectual property rights (IPRS) under national intellectual property awareness mission (NIPAM)" to celebrate the '75th Independence Day-Azadi Ka Amrit Mahotsav' on 22.04.2022.

### **DEPARTMENTAL ACTIVITIES**

DSIR's mandate is to promote Industrial Research and Development besides technology promotion, development and utilization. In order to promote and nurture Research and Development in the country, Industrial R&D Promotion Programme of

the department gives recognition and registration to in-house R&D units of industries, not for profit Scientific and Industrial Research Organizations (SIROs), Public Funded Research Institutions (PFRIs) and periodically renews these recognition / registration under the respective Government Notifications (as amended from time to time), by virtue of which these organizations are able to obtain Customs duty exemptions, Goods & Service Tax (GST) concessions and Weighted tax deductions on R&D by Industry (under section 35(2AB) of IT Act). This scheme helps in encouraging industrial R&D in the country.

# Industrial R&D Promotion Programme Recognition/ Registration and renewal of In-house R&D in Industry

 37 in-house R&D units of industries were granted renewal of recognition as well as renewal of registration certificates.

# Scientific and Industrial Research Organisation (SIROs) Recognition/ Registration and renewal of SIROs

 78 SIROs were granted renewal of recognition and 53 were granted renewal of registration certificates

DSIR Central Sector scheme 'Industrial Research and Development (IRD)' comprise of the four sub-schemes i.e (i) Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM), wherein financial assistance is extended to independent innovators for converting innovative ideas into demonstrable working models / prototypes / processes that may take the form of new or improved products, processes, or services; and assist them to become incubatees / techno-entrepreneurs, (ii) Patent Acquisition and Collaborative Research and Technology Development (PACE), wherein support shall be provided to industries and institutions for development and demonstration of innovative technologies,(iii)Building Industrial R&D and Common Research Facilities (BIRD), wherein support shall be provided for creation of Common Research and Technology Development Hubs for use by entrepreneurs and industries and (iv) Access to Knowledge for Technology Development and Dissemination (A2K+) wherein studies and conferences in up-coming areas of industrial research shall be taken up besides undertaking a Technology Development and Utilization Programme for Women (TDUPW).

- (i) Building Industrial Research & Development Common Research Facilities (BIRD-CRF) program The scheme focuses on creation of Common Research and Technology Development Hubs (CRTDH) for micro, small and medium enterprises.
  - CRTDH-IITR: Hybrid mode seminar with knowledge session from portfolio experts of Beckman Coulter Life science, India on CytoFLEX Flow cytometer and BioLector XT Microbioreactor was conducted.

### CRTDH-IIT-Kharagpur:

a) Awareness programme and seminar on affordable health and technology for physically challenged people in collaboration with MSME DI, KOLKATA (13.04.22)

The CRTDH team at IIT Kharagpur took part in the seminar and awareness programme organised by MSME DI, Kolkata. More than 10 MSMEs representative and 30 individuals attended the seminar. The possible collaboration and way forward were discussed in the meeting.

b) Discussion with MSMEs and NILD Kolkata on possible collaboration with CRTDH (25.04.22)

Several representative from MSMEs and National Institute For Locomotor Disabilities (NILD, Kolkata) visited IIT Kharagpur CRTDH facility and discussed about the possible collaboration with CRTDH. They were shown the different lab facilities available for the MSMEs and further scope of development of facilities to foster MSME research and development.

(ii) Access to Knowledge for Technology Development and Dissemination (A2K+) - The sub-scheme has four components viz: (i) 'Technology Development and Utilization Programme for Women (TDUPW)' (ii) 'Support to Studies' (iii) 'Support to Events' (seminars, workshops, conferences, exhibitions etc.) and (iv) Technology Development and Demonstration Programme (TDDP).

## • A2K+ Support to Events:

Tech-O-Thon: Technasia The Hackathon: An event entitled "Tech-O-Thon: Technasia The Hackathon" was supported under A2K+ Event to MNIT Jaipur which was held from 28-30 April, 2022 at MNIT, Jaipur. The Hackathon was a nationwide initiative to provide students, researchers, professionals and start-ups with a platform to solve some of the pressing problems in our modern society, and thus inculcate a culture of product innovation and a mindset of problem-solving. The basic approach of the event was to promote the out-of-the-box thinking in young minds, especially science and engineering students from across India. The hackathon had three themes i.e., EV infrastructure, Agriculture based solutions and Healthcare. 60 teams participated into the Hackathon event and total 16 teams were shortlisted to participate in the second round of hackathon out of 60 entries. 2 innovations from each theme were shortlisted and those participated in the final round of Tech-O-Thon and three best solutions were awarded by the organizers.

### A2K+ Support to Studies:

- An 'Interaction meet on A2K+ Studies program: Introduction and awareness' was organized on 5th April, 2022 to apprise stakeholders of funding opportunities and theme areas under current call for proposals in A2K+ Studies program of DSIR and address their queries.
- One new study was initiated under the theme 'Techno-commercial
  assessment of TRL-6 and above technologies developed in India in
  academia, research labs and industry' in 3 different sectors:
  "Accessing the Techno-commercial Status of TRL 6 and above
  Technologies in the Field of Healthcare and Agriculture" by Indian
  Institute of Technology (ISM), Dhanbad, Jharkhand.
- Two new studies initiated/supported under the themes suggested by Inter Ministerial stakeholders: (i) Readiness and Interest of Organizations for Adopting Emerging Technologies like AI& ML to AIMA, New Delhi, (ii) Readiness and interest of Indian refineries for adopting AI/ML technology for operations to RGPIT, Amethi.
- A2K+ Technology Development and Utilization Programme for Women (TDUPW): 332 Women Beneficiaries were trained by the projects supported under TDUPW program of A2K+ Scheme

### **PUBLIC SECTOR ENTERPRISES**

#### **Central Electronics Limited (CEL)**

CEL is an enterprise under DSIR having an objective to commercially exploit the indigenous technologies developed by National Labs and R&D institutions in the country. CEL has developed a number of products for the first time in the country through its own R&D efforts and it continues to emphasize its leading role in the area of solar photovoltaic systems, electronic gadgets for Railway and other strategic electronic equipment/components among others.

- The company manufactured electronic components/systems/SPV products worth Rs.1076.22 Lakhs during April, 2022.
- Sale of items worth Rs.495.06 Lakhs was realized during April, 2022.

## **National Research Development Corporation (NRDC)**

NRDC continues to lay emphasis on broadening and strengthening the technology resource base by nurturing long term relationships with R&D institutions as well as universities, technical organizations, industries and also individual inventors.

- NRDC has licensed two technologies on Poshan and Seaweed Extract Fertiliser to industry for commercial exploitation during April, 2022.
- NRDC has collected premia of Rs.1.75 Lakhs from respective technologies during April, 2022.
- NRDC handed over the cheque of Rs 7.81 Cr to Secretary, DSIR towards royalty collection from Technology Development and Demonstration Program (TDDP) projects.

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