



RICH Communiqué

A quarterly digest of happenings
at Research and Innovation
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COVER STORY

RICH: Building a Sustainable Future Through Collaboration

Given the double whammy of climate change and global warming, humanity no longer has the option to continue on their current path of unsustainability; sustainable alternatives must be rapidly found and implemented in every aspect of living. For this, research and innovation are the key levers.



INITIATIVES



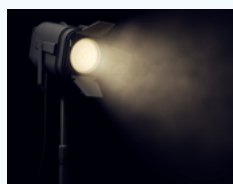
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COVER STORY

RICH: Building a Sustainable Future Through Collaboration



Ajit Rangnekar, Director General, RICH, and Glory Swarupa, Director General, NiMSME, at the MoU signing between both teams

Given the double whammy of climate change and global warming, humanity no longer has the option to continue on their current path of unsustainability; sustainable alternatives must be rapidly found and implemented in every aspect of living. For this, research and innovation are the key levers.

We are already seeing a transition to a sustainable society, and many countries across the globe are prioritising clean technologies. In India, too, there is a movement towards overturning the old economic order of 'growth first, people and environment next' to growth in tandem with the environment and sustainability

In terms of the installed capacity of renewables, India ranks 4th in the world; and the share of renewables in India's energy mix is growing. The Union Budget 2022 has also provided multiple incentives to further push the transition. Recently, the Hon'ble Indian Prime Minister, Shri Narendra

Modi, said “Our priority should be to make science and technology affordable to the masses with zero-effect and zero-defect”, meaning that India’s developmental goals should have no adverse impact on the environment and no side effects either.

In addition to government support, what is key to solving India’s challenges sustainably is a research ecosystem that is based upon collaboration, interdisciplinary explorations, and the smooth exchange of ideas and information. RICH, with its unique capabilities, can be a crucial player in enabling these collaborations and boosting the potential of sustainability-oriented research and innovation.

Thus, RICH is embarking upon several ambitious projects in its sustainability vertical. These projects will be executed through collaborations with various organisations. Key among these partnerships is that with the National Institute for Micro, Small, and Medium Enterprises (Ni-MSME). This collaboration enables RICH to support stakeholders working in the clean technology ecosystem by establishing a Centre of Excellence (CoE) on clean technologies. As RICH and Ni-MSME work in tandem, they will create a blueprint for the CoE, onboard partner institutions, identify potential investors and organise events for all major players in the clean technology space. This will lay the groundwork for making clean technology transition a reality in Telangana.

RICH also has experience in mapping innovation ecosystems and setting up centres of excellence in educational institutions. Recently, RICH had signed an MoU with Vaagdevi Incubation and Business Acceleration (VIBA) centre to build a thriving research and development ecosystem for students, start-ups, and grassroots innovators. As part of this MoU, RICH conducted activities, such as an R&D Day, where students and professors at Vaagdevi College could present their research ideas. Other activities included the Agro-Industry Research Roundtable in April 2021, to identify farming problems via discussion with various stakeholders in the agriculture industry, and the Agri-Hackathon, to identify and support rural and student innovators, who were developing innovative solutions. RICH aims to work with organisations in educational institutions, like VIBA, to create CoEs that will foster innovation and enterprise.

Sustainability is undeniably the need of the hour, and RICH is bringing together all the right people and institutions who can lay the foundations upon which Telangana’s sustainable future will be built.

INITIATIVES

Forest PLUS 2.0: Sustainable Forest Management

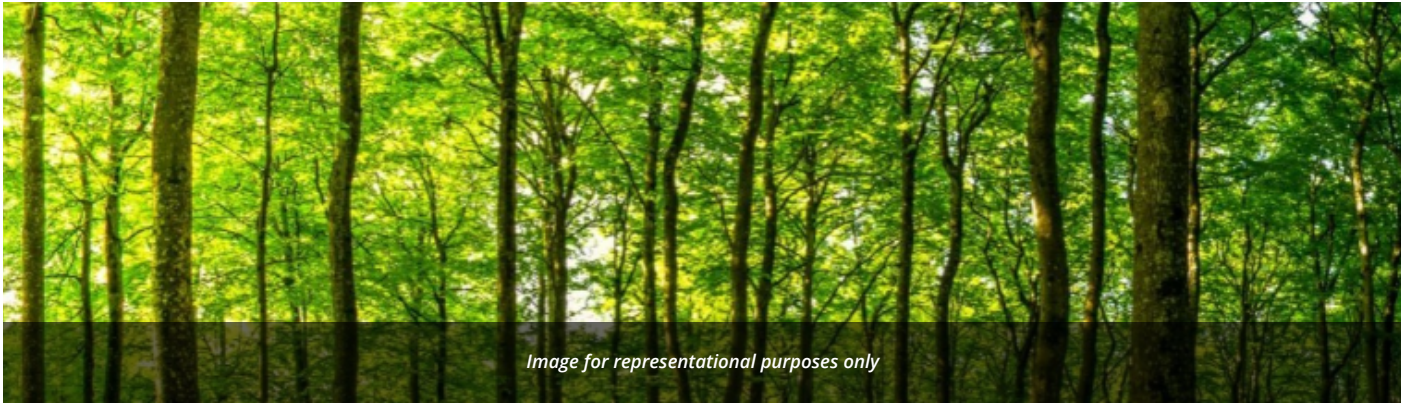


Image for representational purposes only

For centuries, forests have been central to the cultures and livelihoods of millions, providing food and raw materials, and shaping the way surrounding communities live. Today, forests cover nearly a third of the Earth's landmass. In addition to their cultural importance, they also remain vital to the environment, ensuring climate regulation, soil protection, and groundwater retention. So, as our communities and socio-economic demands from forests grow, so must our means of managing our relationship with them.

To increase the ecological and socioeconomic sustainability of forests, the United States Agency for International Development (USAID), along with the Indian Ministry of Environment, Forest, and Climate Change (MoEFCC), has conducted nationwide projects since 2012, which take an ecosystem approach to forest landscape management. The second leg of their initiative, called 'Forest-PLUS (Partnership for Land Use Science) 2.0', began in 2018 and focuses on three regions—Gaya, Bihar; Thiruvananthapuram, Kerala; and Medak, Telangana.

In all regions, one of the major goals is to improve livelihood opportunities for forest communities without disturbing the ecological balance of the forest itself. Another key objective is to enhance and maintain forest ecosystems and watersheds. Forest departments, research institutions, private sector entities, and forest-dependent communities collaborate to achieve these goals.

In Telangana, RICH is the implementation partner. RICH with the help of Telangana Forest Department, Govt. of Telangana, is supporting USAID and MoEFCC strategise, manage, and realise on-ground the specific objectives of Forest PLUS 2.0 for this region. RICH's role is three-fold.



The RICH team, including Director of Food and Agriculture Bhubesh Kumar, with members of a forest-dependent community in the Medak region of Telangana



A community living in the Medak region of Telangana

First, since the region is home to high-value tree species such as teak, mahua, and dalbergia; edibles such as neem, amla, and seetaphal (custard apple); and medicinal plants, among other resources, RICH is working with forest-dependent communities to understand and optimise the value chains of these resources, starting with seetaphal. This will help increase their commercial value, thereby increasing livelihood opportunities for members of the community.

Second, RICH is helping scale up the leaf plate making economy in the region. At present, there is one operational plant for leaf plate making. RICH is facilitating conversations and discussions with tribal communities around economic opportunities for their women in this regard. The plates and bowls that the women could make using the sturdy leaves of the Bahinya Tree—which is common in the forest—can be big and strong and have the potential to replace plastic kitchenware in the larger society. This activity is another avenue of sustainable income for the community and the conversations are being facilitated in collaboration with the District Rural Development Office, with support from the District Collector.

Third, RICH is assisting with efforts to convert Lake Pocharam Wild Life Sanctuary into a tourist spot that raises awareness of the vibrant cultures of these communities, the resources the forest has to offer, and sustainable means of interaction with the forest. To this end, RICH is working on turning a historical building into a cultural centre where activities to promote Telangana's food will be hosted, and people will be educated on the custard apple value chain and leaf plate economy, among other things. Further, farm stays and educational tours to understand water and forest conservation will be organised for students and the general public.

The ultimate aim is to create a lasting economy where forest resources are not harnessed at the cost of the environment or biodiversity, and consequently the livelihoods and cultures of forest-dependent communities are preserved. We look to a future society where people are aware of sustainable ways of working with the forest, rather than exploiting it to fuel unchecked economic growth.

INITIATIVES

Project Tej: Accelerating Innovations in MedTech



Telangana is a hub of MedTech research and innovation, and start-ups are plenty in the state. But to convert their ideas into products in the market, these start-ups must first conduct clinical validation studies. This is when they face some of the greatest challenges in their entrepreneurial journey, such as insufficient funds, difficulty in collaborating with hospitals, and difficulty navigating regulatory frameworks.

To help MedTech start-ups overcome these challenges, RICH provides extensive support through various initiatives. One key initiative is Project Tej, created and executed in collaboration with Cyient and Xynteo. This project aims to help start-ups test their MedTech products and services at hospitals and clinics, conduct utility assessment, and carry out model evaluation. It also facilitates mentorship on design aspects and market access.

Over the last year alone, RICH has partnered with 14 major hospitals under Project Tej. These include Fernandez Hospitals, Smiline Dental, MNR Medical College and Hospitals, and NICE Foundation, among others. Open innovation testbeds have been launched at these hospitals, and presently, three start-ups are reaping the benefits.

The forging of such partnerships is likely to continue. Recently, RICH has signed two more memorandums of understanding (MoUs) with two different hospitals—Kauvery Hospital, a leading multi-speciality and tertiary care hospital chain, and the Malla Reddy Health City, a multi-speciality hospital cluster also running four higher education institutions under its society. These MoUs were signed with the goal to explore opportunities in structured clinical validation support.

RICH's partnerships under Project Tej ensure that start-ups are aided in a manner that drives MedTech innovations forward. As the project continues on, the goal will not be to simply partner with more hospitals for clinical validation studies; rather, the scope of mentoring will be broadened to provide holistic support to start-ups seeking assistance in making their ideas a reality.

EVENTS

Discussion on Requisites for Conducting Clinical Validation Studies

On 9th June 2022, RICH organised a virtual event on “Requisites for Conducting Clinical Validation Studies for Medical Devices/Diagnostics Start-ups.” The speaker at the event was Dr. Biju Jacob, Country Director-India, UN Health Innovation Exchange, and Director-Health, Social Alpha. The interactive event saw insightful engagement between Dr. Jacob and the participants; they discussed topics such as the development phases of a medical device and different types of clinical validation studies. RICH looks forward to conducting more of such events for start-ups and innovators who are developing medical devices or diagnostics equipment.



Know more here: <https://rich.telangana.gov.in/News-and-Events.html>

Outreach Program to Identify and Solve Problems in Dryland Farming

To address soil degradation and water flow issues in dryland ecosystems and help solve some technological challenges that small farmers face, RICH—along with Atal Community Innovation Centre–Chaitanya Bharathi Institute of Technology (ACIC–CBIT) R&E Foundation, Aranya Agricultural Alternatives, and Beedakanne Farmer Producer Organisation—conducted a community outreach program on 6th May 2022 at Zahirabad, Telangana. The main objectives were to interact with local farmers to understand their challenges and identify the best practices they follow. The discussions helped shortlist 18 problem statements, such as a lack of modern equipment and the unavailability of good quality seeds.



RICH conducted a similar outreach program with ACIC–CBIT Foundation and ICRM–National Institute of Nutrition, Vikarabad, for health care educators, experts, and sanitation officials. The event saw insightful conversations on daily problems faced by the healthcare community, which helped identify innovations to solve these issues.

The next step is to hold an ideathon/hackathon involving students, innovators, and start-ups in the region to develop innovative solutions for these problems.

Know more here: https://twitter.com/CbitAcic/status/1522759736218701826?s=20&t=jnMZTBojmSO_bny0lzl5Q

EVENTS

Celebrating the Spirit of Entrepreneurship: Run-Up Event to T-Hub 2 Launch



Left to Right: Rashmi Pimpale, CEO, RICH; Dr. Seema, Dean of Agriculture, PJTSAU; Dr. V. Praveen Rao, Vice Chancellor, PJTSAU; Ajit Rangnekar, Director General, RICH; Shri. Somasundaram, Deputy General Manager, TSRO, NABARD

On 23rd June 2022, RICH, in collaboration with Professor Jayashankar Telangana State Agricultural University (PJTSAU), organised a run-up event before the launch of T-Hub 2—an initiative to foster the Indian innovation ecosystem. The event included a torch relay run called the ‘Flame of Entrepreneurship’, which celebrated and spread the state’s spirit of entrepreneurship and innovation. The

Telangana State Innovation Cell (TSIC) flagged off this one-of-a-kind relay on 22nd June, and RICH relayed the torch in Hyderabad on 23rd June. Through addresses by several prominent dignitaries, the event was also a means to showcase the state’s achievements in research and innovation.

Know more here: <https://rich.telangana.gov.in/News-and-Events.html>

Celebrating the Entrepreneurial Ecosystem: Incubators Meeting



At the venue of the second-day launch event for T-Hub 2.0

On 29th June 2022, RICH along with T-hub, Telangana State Innovation Cell, and other ecosystem partners, organised the second-day event to launch T-Hub 2. The event started with an introductory speech by Shri. Jayesh Ranjan, IAS, Principal Secretary, Information Technology, Electronics, and Communications Department, Government of Telangana. The main attraction was a panel discussion on the

topic “Celebrate the Entrepreneurial Ecosystem”. The panellists included experts like Ms. Deepanwitha Chattopadhyay, Chairman and CEO, IKP; Ms. Vinutha Rallapalli, Head, Start-up Investments and Ecosystem, GMR Innovex; Dr. N. Madhusudhana Rao, CEO, AIC-CCMB; Col. B.S. Rao, CEO, SRIX Warangal; and Shri. Srinivas Rao Mahankali (MSR), CEO, T-Hub. The event also comprised announcements of exciting initiatives to support innovators and introductions to upcoming start-ups that will be the future of Telangana.

Know more here: <https://rich.telangana.gov.in/News-and-Events.html>

COLLABORATIONS

Working with Aranya Agricultural Alternatives to Empower Farming Communities



Aranya Agricultural Alternatives is a Telangana-based organisation that works towards incorporating sustainable farming practices in India, to achieve environmental and social prosperity. Now, RICH has signed an MoU with them to enable the implementation of various

farming projects, identify farmer problems, understand current farming practices, upskill farmers, provide them with the latest technologies, and find other innovative solutions to their problems. Both organisations will also support start-ups and innovators who come forward to solve farming challenges.

Know more here: <https://permacultureindia.org/>

Partnering with Samunnati Foundation to Foster Start-Ups Solving Farming Problems



RICH has signed an MoU with Samunnati Foundation, an organisation that works with small landowners and marginalised farmers to enhance their practices and unlock the full potential of the farming

community in India. Under the MoU, RICH's role is to provide a platform for start-ups (shortlisted by Samunnati Foundation) needing assistance in validating their products and getting the necessary certifications and compliance documentation. The partnership will also help start-ups associated with Samunnati to receive mentorship and training from various domain experts associated with RICH. Together, RICH and Samunnati will help commercialise the technology produced by start-ups, so that they can reach the farmers who need them.

Know more here: <https://samunnati.com/>

START-UP SPOTLIGHT

Medtra Innovative Technologies



The Medtra team explaining their product at an expo

Medtra, a start-up that was part of RICH-AID Cohort 1, has recently received a grant of ₹2.46 crores from the Product Commercialisation Program (PCP) fund by the Biotechnology Industry Research Assistant Council (BIRAC) to support the commercialisation of their vein tracking device. Medtra is a biomedical start-up building the world's most affordable vein tracking device (which uses augmented reality). As part of AID, Medtra received mentorship on regulatory aspects and fundraising.

Read more on Medtra here: <http://www.medtrainnovations.com/>

Marut Drones



Prem Kumar Vislawath, Marut Drones CEO, explaining their tech to PM Narendra Modi at the Bharat Drone Mahotsav

Marut Drones, a start-up that has a long association with RICH, was recently selected for participation in a government project to pilot drone deliveries using “beyond the visual line of sight” (BVLOS) drones—those that travel long distances. In this project, Marut Drones will be partnering with swiggy to provide instamart deliveries via drones. This comes at the heels of their

recent success with their BVLOS drone Hepicopter in transporting medicines, vaccines, and diagnostic kits across distances of over 45 km during the pandemic. Marut Drones is changing the scope of what drones can achieve.

Read more on Marut Drones here: <https://www.marutdrones.com/>

RICH IN THE NEWS



Rashmi Pimpale, CEO, RICH

AgroSpectrum recently interviewed Rashmi Pimpale, CEO of RICH, about RICH's role in the agri-tech space. The interview includes Ms. Pimpale's views on the Indian agriculture sector and RICH's role in supporting innovations in agri-tech.

Read the article here: <https://agrospectrumindia.com/2022/05/18/rich-has-created-a-supportive-ecosystem-for-innovators-in-agri-tech-space.html>

Message from our Head of Life Sciences

Healthcare woes are not alien to the pandemic-stricken generation. In these challenging times, Hyderabad, the pharma capital of India, provided much-needed hope by emerging as the vaccine capital of the world. The prevailing pandemic has magnified the need for affordable, accessible, high-quality healthcare services. Since its inception, RICH's life sciences vertical has taken deliberate action to address the challenges plaguing research, innovation, and commercialisation in the HealthTech sector. We have built a support platform for MedTech innovators by forging partnerships with clinicians, hospitals, research and academic institutions, regulators, investors, and above all, mentors for every step of the commercialisation journey. Quoting Helen Keller, 'Alone, we can do little; together we can do so much'. We look forward to many vibrant engagements with our partners for accelerating MedTech innovations.



Sushmitha Sundar
Head, Life Sciences

