

STRC NEWSLETTER



Science & Technology Resource Centre Gondwana University, Gadchiroli

A centre of excellence for sustainable value creation, conceived and funded by Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, Govt. of Maharashtra.

TECHNOLOGY | ENTERPRISE | DEVELOPMENT



Padma Vibhushan Dr. Anil Kakodkar Chairs STRC's 12th Foundation Day & 26th Joint GB-PAB Meeting



From the CPOs Desk

**Circular Bioeconomy Potential of
Agriculture and Forest Landscapes
in Maharashtra:**



Shri. Swapnil Girade
Chief Program Officer & Head, STRC



Article

**Strengthening Tribal Food
Enterprises through Technology,
Value Addition and Institutional
Collaboration**



Shri. Aditya Bele
Field Coordinator, STRC

Whats Making News

- ≈ STRC Hosts First Chaupal Program for Gadchiroli Artisans
- ≈ STRC Showcases Grassroot Rural Innovations at Koya Krushi Kumbh-2026
- ≈ VNIT Nagpur Director Visits to Explore Its Unique Initiatives
- ≈ Visit to Roy Fish Seed Centre, Malampalli, Allapalli (Aheri)
- ≈ STRC Participation in Workshop on Nature-Positive Agriculture
- ≈ Trainee IAS Officers Visit STRC as Part of Institutional Exposure Program
- ≈ Hon'ble Vice-Chancellor of Rashtrasant Tukadoji Maharaj Nagpur University Visited STRC

From the CPO's Desk



Circular Bioeconomy Potential of Agriculture and Forest Landscapes in Maharashtra:

Pathways for Regenerative Agriculture and Sustainable Forestry

Maharashtra's agriculture and forestry sectors present significant scope for transition toward a circular bioeconomy model. With over 55% of the state's population dependent on agriculture and nearly 20% of its geographical area under forest cover, the integration of regenerative and resource-efficient systems holds strong developmental potential. Soil degradation, rainfall variability, and underutilized biomass resources indicate both a challenge and an opportunity for systemic transformation.

The scope for regenerative agriculture in Maharashtra is substantial, particularly in rainfed regions such as Vidarbha and Marathwada. Conservation agriculture, crop diversification, integrated livestock systems, and biological soil enhancement practices have demonstrated potential to improve soil organic carbon, enhance water-use efficiency, and stabilize farmer incomes. Given that nearly 30% of India's land faces degradation, large-scale adoption of regenerative approaches in the state could significantly strengthen long-term agricultural productivity and climate resilience.

Agroforestry presents further expansion potential. With India already having over 28 million hectares under agroforestry, Maharashtra can strategically scale tree-based farming systems involving bamboo, timber, and fruit species. Integrated models have the potential to increase land productivity by 20–40%, diversify income streams, and reduce pressure on natural forests. In forest-rich districts such as Gadchiroli and Chandrapur, community-linked agroforestry and sustainable forest management can enhance livelihood security while conserving biodiversity.

The residue management sector offers strong economic potential. Maharashtra generates substantial quantities of crop residues including cotton stalks, soybean straw, and sugarcane trash. These resources can support decentralized bioenergy production, biochar applications, briquetting units, and bio-based material industries. Structured biomass valorisation systems could reduce environmental pollution, generate rural enterprises, and contribute to the state's renewable energy and climate commitments.

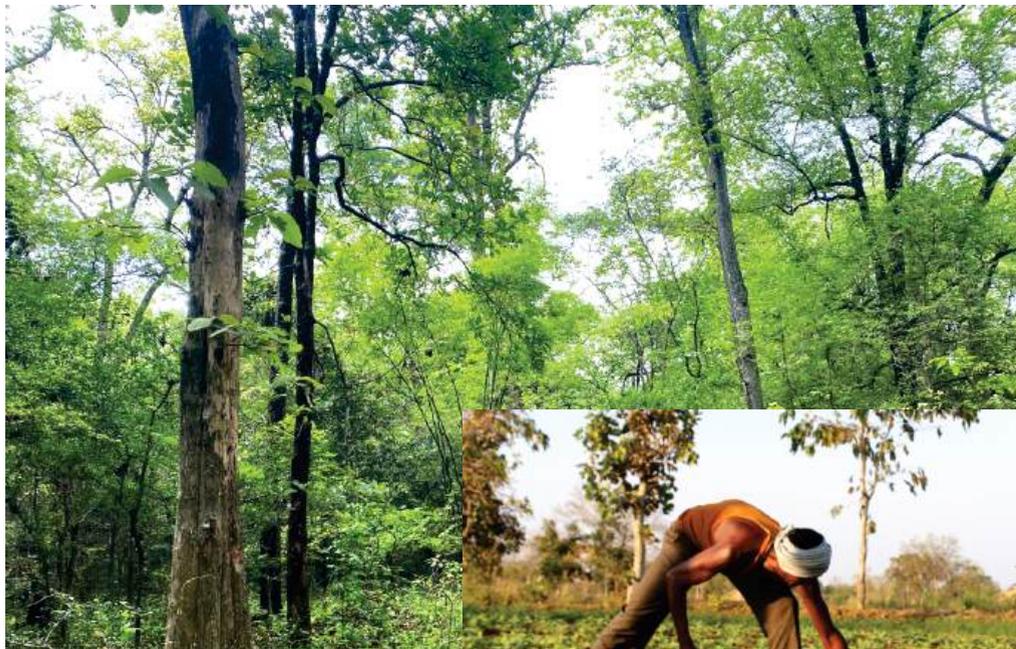


Shri Swapnil Girade
Chief Program Officer and Head,
STRC

Within this emerging landscape, Institutions for Centre of Excellence holds strategic potential to position itself as a regional hub for circular bioeconomy research, innovation, and demonstration. The Centre can facilitate pilot projects on regenerative farming, agroforestry optimization, and biomass utilization technologies tailored to Maharashtra's agro-climatic conditions. Capacity-building programmes targeting farmers, forest communities, and rural entrepreneurs can accelerate adoption and create a skilled bioeconomy workforce.

The cumulative potential of these interventions extends beyond environmental sustainability. Improved soil health, diversified farm incomes, decentralized biomass enterprises, and strengthened forest-based value chains can contribute to rural employment generation, reduced input dependency, and enhanced resilience to climate variability.

Maharashtra's agrarian and forest landscape provides a strong foundation for advancing a circular bioeconomy framework. With coordinated research, field demonstration, and institutional support, STRC can play a catalytic role in unlocking this potential and steering the state toward a regenerative, resource-efficient, and economically robust rural future.



Article

Strengthening Tribal Food Enterprises through Technology, Value Addition and Institutional Collaboration

Gadchiroli is rich in minor forest produce, traditional millets, oilseeds, medicinal plants, spices, and indigenous food knowledge. However, much of this produce is marketed in raw or semi-processed form, which limits income realization for local communities. Introducing decentralized food processing systems at village and cluster levels can significantly enhance product value, shelf life, safety, and market reach. Technologies such as solar dehydration units, mini pulse and millet mills, cold-pressed oil extraction units, vacuum packaging systems, and small-scale processing units can be effectively deployed as part of community-based enterprise models.

Science and Technology Resource Centre (STRC), Gondwana University, Gadchiroli, continues to expand its efforts toward livelihood enhancement by integrating science, technology, and grassroots innovation in tribal-dominated regions. Through technology dissemination initiatives and training programs, STRC has supported rural communities in adopting small-scale processing technologies that create new income opportunities. Building on these efforts, the next transformative step lies in strengthening tribal food enterprises through structured value addition and scientific intervention.

A major milestone in this direction is the recent Memorandum of Understanding signed between STRC and Ballarpur Institute of Technology (BIT), Ballarpur. This collaboration marks the beginning of a structured partnership in the field of Food Technology and Tribal Enterprise Development. The MoU aims to bridge traditional knowledge systems with scientific research by promoting nutritional and phytochemical analysis of forest-based foods, product formulation, and standardization. Access to advanced laboratory facilities at BIT will support quality testing, compliance with food safety standards, and validation of indigenous food products.

The partnership also opens avenues for student research projects, internships, and field-based experiential learning. Such academic–community linkages will help document traditional food practices and transform them into standardized, market-ready products. Capacity-building initiatives including support for FSSAI registration, branding strategies, packaging design, and



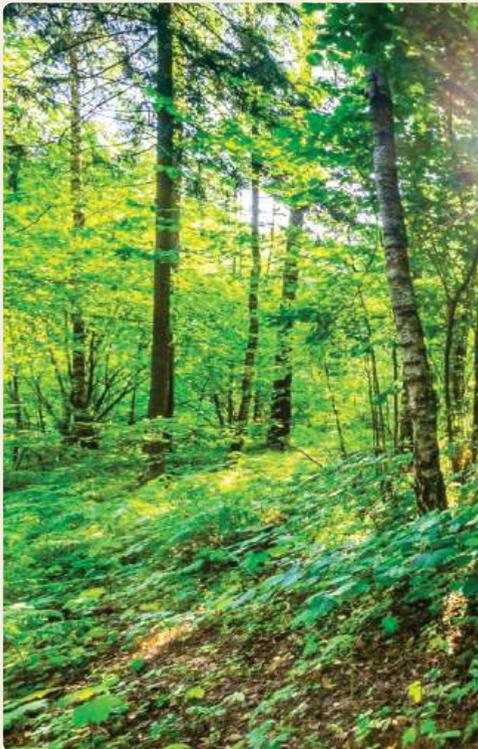
Shri. Aditya Bele

Field Coordinator,
Science & Technology Resource Centre

entrepreneurship development training will further strengthen Self-Help Groups and rural youth enterprises.

Looking ahead, STRC considering establishing a Food Technology Lab that will directly support Rural Enterprises equipped with pilot-scale processing machinery and product development units. The introduction of eco-friendly packaging, QR-code traceability, and collective branding such as “Tribal Natural Products of Gadchiroli” can enhance consumer trust and improve market positioning. Digital marketing platforms and institutional tie-ups with government nutrition programmes can further expand market access for tribal food products.

By combining grassroots resource potential, scientific validation, modern food processing technologies, and structured marketing strategies, STRC is well positioned to support the growth of sustainable tribal food enterprises. This integrated approach will not only improve rural incomes but also help preserve traditional knowledge, ensure food safety, and promote inclusive economic development in the Gadchiroli district.



Cover Story

Padma Vibhushan Dr. Anil Kakodkar Chairs STRC's 12th Foundation Day & 26th Joint GB-PAB Meeting

 Gadchiroli | 23 February 2026

The 12th Foundation Day of Science and Technology Resource Centre (STRC) was celebrated with enthusiasm, along with 26th joint meeting of its Governing Body (GB) and Program Advisory Board (PAB) of STRC.

The program was chaired by Padma Vibhushan Dr. Anil Kakodkar, Former Chairman, Atomic Energy Commission of India and Chairman, Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, Government of Maharashtra. Along with Chairman of the STRC-Governing Body, Dr. Charudatta Mayee, and Hon'ble Vice-Chancellor of Gondwana University and Chairman of the STRC-Program Advisory Board, Dr. Prashant Bokare were prominently present on the occasion.

Other distinguished attendees included Dr. Shriram Kawale (Pro-Vice-Chancellor, Gondwana University), Dr. Anil Hirekhan (Registrar, Gondwana University), Dr. Vrushali Kulkarni (Member Secretary I/C, RGSTC, Mumbai), Dr. Anand Bang (Joint Director, SEARCH, Chatgaon, Gadchiroli), Shri. Girish Sohani (Principal Advisor & Trustee, BAIF Development Research Foundation, Pune), Dr. Arun Sapre (Former Advisor, RGSTC, Mumbai), Dr. Prakash Dolas (Former Advisor and Office In-charge, RGSTC, Nagpur), Prof. Manish Uttarwar (Director, Innovation, Incubation and Linkages, Gondwana University), Prof. A. M. Kuthe (Department of Mechanical Engineering, VNIT, Nagpur), Smt. Pragati Gokhale (Advisor and Office In-charge, RGSTC, Nagpur), Smt. Smita Mule (Advisor, RGSTC, Nagpur), and several other dignitaries.





During the meeting, a comprehensive review of STRC's initiatives was carried out, followed by detailed discussions on its future roadmap and long-term sustainability. On the occasion, the Gondwana Craft Website was officially launched and the Product Catalogue was formally unveiled.

Addressing the gathering,



Dr. Anil Kakodkar emphasized that technology must be used to enhance the quality of life of common people. He stated that the income levels of youth in Gadchiroli should be comparable to those in metropolitan cities and there technology must serve as a tool for inclusive empowerment. Appreciating STRC's contributions, he expressed that the Centre would continue its progress and celebrate coming Foundation Days with even greater success.

Dr. Prashant Bokare highlighted the need to bridge the economic gap between urban and remote regions, stressing that technology must reach grassroots communities to enhance per capita income in areas such as Bhamragad, Aheri, and Etapalli.



Dr. Charudatta Mayee appreciated STRC's efforts and emphasized strengthening the rural economy through science and technology based programs.

Shri Swapnil Girade, Chief Program Officer and Head, STRC, presented a comprehensive overview of the Centre's future plans and reaffirmed STRC's commitment to accelerating technology-driven initiatives based on local resources, skill development, and entrepreneurship promotion.

The program concluded with a gesture of gratitude, wherein customized bamboo products developed under STRC's initiatives and specially designed STRC notebooks were presented to all esteemed members of the Governing Board and Program Advisory Board by the Chief Program Officer & Head, STRC, as a token of appreciation and commitment to sustainable, locally rooted innovation.

What's Making News

STRC Hosts First Chaupal Program for Gadchiroli Artisans

 Gadchiroli / February 9, 2026

Science and Technology Resource Centre (STRC), Gondwana University, organised a 'Chaupal' program in collaboration with the Development Commissioner (Handicrafts), Ministry of Textiles, Government of India, to connect rural and tribal artisans with government welfare schemes and provide them national-level recognition through Artisan Card, skill development opportunities, and improved market linkages through centralized artisan portal.

The program was presided over by Pro-Vice Chancellor of Gondwana University Dr. Shriram Kawale. Among the dignitaries present were Sub-Divisional Magistrate Smita Belpatre, Additional Director (Handicrafts) Avdhesh Thakur, and TRICEF Director Prof. Manish Uttarwar. In his address, Dr. Kawale highlighted the importance of linking the district's traditional art and craft with wider markets, while Smt. Smita Belpatre stated that the Chaupal initiative would be extended to the taluka level to reach more artisans.

During the program, artisans were guided on the registration process, required documentation, and various government schemes related to the handicrafts sector. A technical session was conducted under the guidance of Shri. Avdhesh Thakur, during which application forms were filled and documents were verified on the same day. The initiative received an encouraging response, with over 130 artisans registering for the Artisan / Pehchan Card.



STRC Showcases Grassroot Rural Innovations at Koya Krushi Kumbh–2026



Gadchiroli / 5–9 February 2026

Science and Technology Resource Centre (STRC), Gondwana University, marked a strong presence at Koya Krushi Kumbh–2026 at Agriculture College, Sonapur. Organized under the theme “Asmita Adivasichi, Samruddhi Shetichi: Gadchirolichi Navi Kranti,” the five-day exposition focused on empowering tribal cultivators through technology, market access, and value-added agricultural practices.

The Krushi Kumbh was jointly organised by the Agricultural Technology Management Agency (ATMA), Gadchiroli, and the State Agriculture Department as a comprehensive platform connecting farmers, experts, policymakers, and agribusiness stakeholders. The event featured exhibitions, expert lectures, buyer–seller meets, demonstrations, and policy interactions aimed at promoting sustainable and diversified agriculture in the district.

At the forefront of innovation, STRC showcased low-cost, field-tested grassroots rural technologies in agriculture and allied sectors, designed specifically for small and marginal farmers. The Centre also displayed locally developed products under its livelihood initiative, Gondwana Craft, emphasizing branding, and market linkage support for rural artisans and entrepreneurs. The STRC stall received a keen response from farmers, students, entrepreneurs, and officials who engaged in detailed discussions on implementation, scalability, and benefits of the showcased technologies.

Through its impactful participation, STRC reaffirmed its commitment to technology-driven rural transformation, sustainable farming practices, and entrepreneurship promotion in Gadchiroli district.



VNIT Nagpur Director Visits to Explore Its Unique Initiatives



Gadchiroli | February 13, 2026

Prof. (Dr.) Prem Lal Patel, President of ISH and Director of Visvesvaraya National Institute of Technology (VNIT), Nagpur, visited STRC, to explore the Centre's innovative initiatives aimed at promoting sustainable livelihoods in rural and tribal regions.

As part of the interaction, he visited the STRC Model Production Unit and the STRC Vaidya Chikitsalay, where he was briefed on the Centre's initiatives in technology-based livelihood promotion, traditional healthcare



practices, and community-oriented development activities implemented in the region.

Visit to Roy Fish Seed Centre, Malampalli, Allapalli (Aheri)



Aheri | February 7, 2026

The team from STRC visited the Roy Fish Seed Centre at Malampalli (Alapalli), Tahsil Aheri, to understand the operational practices and aquaculture potential of the facility. The centre comprises 14 well-maintained farm ponds equipped with a dedicated breeding setup and a 10,000-litre capacity overhead water tank to ensure uninterrupted water supply for hatchery operations.



The centre produces quality fish seed of Indian Major Carps (IMC), Common Carp, Pangasius, Grass Carp, and Rupchand, catering to the needs of aquaculture farmers in the region. The facility is emerging as a small hub for quality fish seed production, supporting local fish farmers and strengthening fisheries-based livelihood opportunities.

STRC Participation in Workshop on Nature-Positive Agriculture



Nagpur | February 18, 2026

STRC actively participated in the one-day workshop titled "Nature-Positive Agriculture: Aligning Markets, Policies, and Farm Practices for Resilient Food and Fiber System" at Pride Hotel, Nagpur. The workshop brought together experts, researchers, and development organizations to deliberate on the promotion of regenerative and nature-positive agricultural practices. Key sessions covered themes such as carbon incentives in regenerative agriculture, market demand for regenerative produce, standards and ground realities of regenerative agriculture, and strengthening supply chain linkages. Experts from various institutions shared insights on integrating sustainable farming practices with emerging market opportunities and policy frameworks. STRC representatives actively engaged in the discussions and interactions during the sessions, gaining valuable



perspectives on regenerative agriculture and climate-resilient food systems. Participation in the workshop provided STRC with an opportunity to connect with leading institutions and explore potential collaborations for promoting sustainable agriculture and livelihood initiatives in the tribal and rural regions of Gadchiroli.



Trainee IAS Officers Visit STRC as Part of Institutional Exposure Program



Gadchiroli / February 9, 2026

A team of Trainee Indian Administrative Service (IAS) Officers visits STRC as part of their institutional exposure visit. The purpose of the visit was to gain insights into the Centre's multifaceted initiatives in rural development, innovation

promotion, skill development, and community engagement.

During the visit, the officers were provided with a comprehensive overview of STRC's objectives, operational framework, and its role as a bridge between technology institutions and grassroots communities. They were also briefed on various programmes implemented by the Centre, including technology transfer, entrepreneurship development, capacity-building workshops, digital communication strategies, and documentation of best practices.

In the session, STRC officials highlighted ongoing collaborations with national and local institutions. The impact of community-centric projects and field-level interventions carried out across Gadchiroli district was also presented.

Hon'ble Vice-Chancellor of Rashtrasant Tukadoji Maharaj Nagpur University Visited STRC



Gadchiroli / February 13, 2026

In a significant academic engagement, the Hon'ble Vice-Chancellor of Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) Dr. Manali Makarand Kshirsagar visited Science and Technology Resource Centre (STRC) during official visit to Gondwana University.



The Vice Chancellors delegation was briefed on STRC's key programs including technology transfer, vaidya chikitsalay, skill development, and ICT-based communication initiatives implemented across Gadchiroli district. The discussion focused on impact, sustainability, and strengthening university-community linkages.

They also appreciated Gondwana Craft products, the livelihood and enterprise initiative supported by STRC, where they observed product development process, branding, and market linkage efforts aimed at promoting local artisans and entrepreneurship.

The dignitaries appreciated the integrated and field-oriented approach adopted by STRC and encouraged further strengthening and expansion of impactful initiatives.

Our Latest Publications



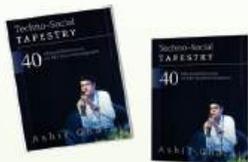
Monthly Newsletters



Our 2024 Story A Pictorial Representation



Techno-Social Tapestry By Shri Ashis Gharai, Former CPO & Head, STRC



- Executive Editor -

Shri Swapnil Girade

Chief Program Officer and Head, STRC

- Graphics and Design -

Ms Priyanka Durge

Scientific Officer, Communication for
Development through ICT, STRC

- Contribution -

Team STRC



Science & Technology Resource Centre Gondwana University, Gadchiroli

Conceived and funded by Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, Government of Maharashtra, Science & Technology Resource Centre (STRC) is an autonomous institute established in concurrence with Gondwana University, Gadchiroli in 2014. As a centre of excellence for sustainable value creation, STRC is leveraging local resources, relevant knowledge and appropriate technologies for human capacity development. STRC acts as a catalyst to science and technology based development of the under-served tribal communities of the Gadchiroli region and as a bridge between knowledge activities of the University and enhanced livelihoods in the neighborhood.



*'Science & Technology
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www.strc.org.in | strc.gug@gmail.com | +91 7588762147

STRC, Gondwana University, MIDC Road, Complex, Gadchiroli - 442605

