

STRC NEWSLETTER

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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.



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Vice Chancellor,
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Advisor,
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STRC is a society, 'Science & Technology Resource Centre Foundation Gadchiroli', registered under the Societies Registration Act, 1860 (XXI of 1860)



Integrated Fish Farming (IFF) is a unique system of fish farming combining other agricultural / livestock farming operation centered around a fish pond. STRC employs fish and poultry as a combination to support additional income generation for marginal fish farmers.



From the CPO's Desk

STRC's Quest to Create a Vibrant Research and Innovation Ecosystem: Current Trends and Way Forward

Buoyed by a vibrant start-up ecosystem and research collaborations between the industry and academia, India's research and innovation landscape is thriving and how. Further, with the start-up ecosystem rapidly gaining traction ...

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STRC's Quest to Create a Vibrant Research and Innovation Ecosystem: *Current Trends and Way Forward*



Shri. Ashis Gharai
Chief Program Officer & Head,
STRC-GUG

Recent Impetus for Research and Development:

Buoyed by a vibrant start-up ecosystem and research collaborations between the industry and academia, India's research and innovation landscape is thriving and how. Further, with the start-up ecosystem rapidly gaining traction, innovation and entrepreneurship are advancing across diverse sectors.

Over the years, India has made significant advancements in various domains of science, be it in pharma, space exploration, healthcare, technology, and more. In the current research landscape, both government and private academic research institutions play an indispensable role in human resource development, knowledge creation and global technological advancements. Despite these notable achievements, challenges persist. Although India ranks third worldwide in the number of scientific publications and PhD students, 9th in the number of citations and 6th in patent filings, we stand at a relatively low 40th for innovation, which is a cause for concern.

A focused multi-faceted approach in funding, infrastructure, policies and collaboration is vital to improve the research and innovation ecosystem. However, when it comes to allocating funds, India's expenditure on research and development (GERD as a percentage of its GDP) stands way lower compared to many developed countries like China and USA, who spend as much as 8 times and 40 times more, respectively.

Synergy in Our Approach:

At STRC, we are dedicated to fostering the kinds of innovation and research in science and technology which directly benefit local communities. The Assistance for Science & Technology Application Scheme is a great way to support researchers and faculties in developing applicable solutions that can improve livelihoods. Although, we trust the fact that these research outcomes are meant to benefit the under-served local communities, encouraging the filing of patents also ensures that the outcomes of this research are protected and can potentially lead to further advancements. Outcome of our recently awarded research grants under the scheme, have been rather interesting. While the mobility aid made out of bamboo composite could greatly benefit individuals with physical disabilities, providing them with a more affordable and sustainable solution, the uniquely designed Mohua Seed Harvester could have a positive impact on tribal communities by helping them collect fresh mohua flowers more efficiently and increase their trade value.

Additionally, our Model Production Unit (MPU), which thrives on creating innovative products in bamboo, especially in the category of souvenirs, lifestyle products and its structural application, multiple preliminary research have been carried out to create innovative tools out of bamboo such as; Bamboo Craft Toolkits for local artisans, and Bamboo Poly-house as nutri-gardens, Bamboo Seed Spacers and Bamboo Composite Poultry Sheds to support local farmers. Through our Environment Education Program for Tribal Schools, we are trying to promote a sense of curiosity and cultivate an inquisitive thought process among young children to pursue research and innovation.



Ideas for the Future:

STRC believes, by promoting and supporting R&D in low-cost tools and technologies, we can drive innovation and make these advancements more accessible to a wider audience. It's important for these innovations to be adopted on a larger scale and commercialized to maximize their impact. It is of paramount importance that we have a clearly defined road-map and a strategic approach that ensures sustained flow of funds for R&D, supported with required infrastructure and state policies encouraging new collaborations for ground-breaking research.

STRC is grateful to Cactus Communications and Shri Abhishek Goel, Co-Founder & CEO, for the wonderful gesture to allow us to use excerpts from his authored article 'Nurturing India's research ecosystem: A roadmap for growth and innovation' (Source: www.thehindubusinessline.com, March 2024)

Exploring the Untapped Potential: Scope of Scientific Fisheries in Gadchiroli District

Gadchiroli district is renowned for its rich biodiversity and abundant natural resources. Despite its vast potential, the district has remained relatively untapped in certain sectors, particularly fisheries. However, with the advent of advanced technologies and dedicated initiatives, there lies a significant opportunity to unlock the fisheries sector's potential in Gadchiroli. This article delves into the scope of fisheries in Gadchiroli district and highlights the proactive approach of STRC towards harnessing this potential.

Scope of Fisheries in Gadchiroli District

Gadchiroli, endowed with numerous rivers, streams, and reservoirs, possesses a conducive environment for fisheries development. The district's water bodies are home to diverse aquatic species, including various indigenous fish species and prawns. Despite this, the fisheries sector in Gadchiroli has not realized its full potential due to various challenges such as limited access to modern techniques, inadequate infrastructure, and lack of awareness among local communities.

However, the district offers immense scope for the expansion of fisheries activities. With proper planning, implementation of scientific practices, and community involvement, Gadchiroli can emerge as a hub for freshwater aquaculture. The development of the fisheries sector not only promises economic benefits but also contributes to food security and livelihood enhancement, especially for the rural populace.

STRC's Approach

Recognizing the untapped potential of the fisheries sector in Gadchiroli, STRC has adopted a multi-faceted approach to promote sustainable fisheries practices and enhance the livelihoods of local communities.



Shri. Ajay Shahare
Scientific Officer,
Aquaculture and Livelihoods,
STRC-GUG



Capacity Building: STRC conducts regular training programs and workshops for fisher folk and farmers to impart modern techniques in aquaculture, fish breeding and pond management. STRC has capacitated and trained over 450 local fish farmers through 32 trainings and workshops. These capacity-building initiatives aim to empower local stakeholders with the necessary skills and knowledge to optimize fish production and improve yield.

Technology Transfer: STRC facilitated adoption of advanced aquaculture technologies such as induced fish breeding (at 4 locations in Gadchiroli) and Integrated fish farming (25 fish farmers) respectively. Through adoption of these technology, STRC seeks to enhance productivity, minimize resource wastage, and promote eco-friendly approaches in fisheries management.

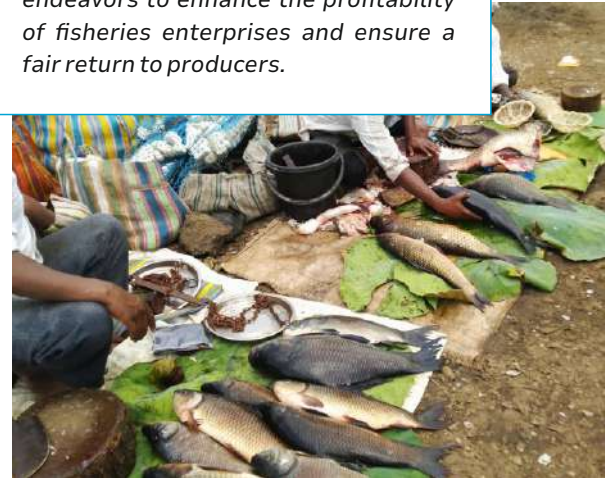




Infrastructure Development:

Recognizing infrastructural need of the local fishing communities, STRC made efforts to fulfill the infrastructural gaps through introduction of Portable Carp Hatchery assembly for quality fish seed production in 4 locations across Gadchiroli and 3 Fish Vending Units (Hygienic and efficient mode of selling of fish). These infrastructural interventions aim to streamline the fish supply chain, reduce post-harvest losses, and create employment opportunities in the region.

Market Linkages: STRC facilitated market linkages for local fishermen and Fish Farmers Interest Groups (FIGs) by connecting them with potential buyers, retailers, and exporters through facilitation of buyers-sellers meets etc. By strengthening market access, STRC endeavors to enhance the profitability of fisheries enterprises and ensure a fair return to producers.



Socio-economic Empowerment: Beyond the technical interventions all STRC efforts are focused on development of the local fisheries and economic empowerment of the fishermen communities. Through multiple interventions till date STRC facilitated revenue generation amounting to INR 33.60 Lakh for the beneficiaries.

The fisheries sector holds immense promise for the socio-economic development of Gadchiroli district, and the concerted efforts of stakeholders, including Science and Technology Resource Centre, are pivotal in realizing this potential. Through strategic interventions encompassing capacity building, technology transfer, infrastructure development, market linkages, and socio-economic empowerment, Gadchiroli can emerge as a model for sustainable fisheries management and rural prosperity. By leveraging science and technology in tandem with community-driven approaches, Gadchiroli can chart a course towards a vibrant and resilient fisheries sector that benefits both the environment and the livelihoods of its people.



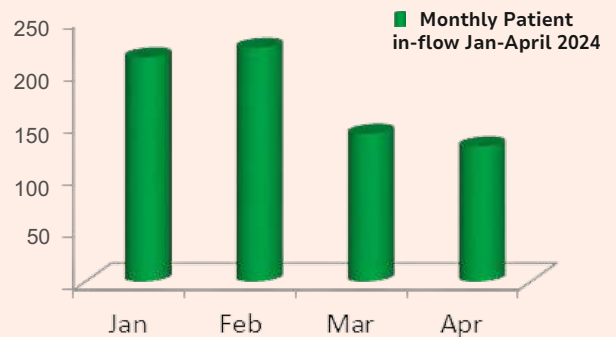
STRC Vaidya Chikitsalay now at Hedri STRC and Lloyds Infinite Foundation (Lloyds Metals) sign MoU

On April 30, 2024, in a significant step towards improving access to quality healthcare in south Gadchiroli region, STRC and Lloyds Metals (Lloyd Infinite Foundation) came together to sign a Memorandum of Understanding to establish a satellite centre of STRC Vaidya Chikitsalay at Lloyds Kali Ammal Memorial Hospital (LKAM), Hedri, Etapalli. The Resident Director, Lloyds Metals, Lt. Col. Vikram Mehta and Chief Program Officer and Head, STRC, Gondwana University Gadchiroli, Shri Ashis Gharai, discussed the modus operandi in detail and mutually agreed to take up this unique initiative for the benefit of the communities in the southern blocks of Gadchiroli. This initiative will act as a complementary support service to the newly developed healthcare facility.

STRC Vaidya Chikitsalaya is a unique university platform to promote traditional healers and their healing practices based on the indigenous medicinal knowledge.



The STRC Vaidya Chikitsalay, initiated in September 2022, has gained reasonable popularity in recent months. Owing to increased demand, even from far-off areas, STRC Vaidya Chikitsalay now operates three days a week (instead of the earlier twice a week), since February 2024. STRC envisages to bring traditional healing practices using indigenous medicinal knowledge on to the mainstream healthcare system through scientific research and validation.



STRC Vaidya Chikitsalay Statistics

Since Jan 2024	26 Number of OPD Days	707 Total Patient in-flow	INR 1.50 Lakh Income Generated by THs
Since Inception	1289 Cumulative Patient Treated	120 Number of OPD Days	INR 3.50 Lakh Income Generated by THs



STRC's Role in Taking Forward the Idea of CILLAGE : Insights from the Recent RGSTC Steering Committee Meeting

The meeting of the RGSTC Steering Committee for the "Village-based Area Development Programme (CILLAGE)" was held on April 3, 2024 at Nandurbar, in the presence of Padma Vibhushan Dr. Anil Kakodkar, Chairman, Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, Govt. of Maharashtra. The event was facilitated by Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon.

STRC was invited to participate and share practical insights and experiences gained from the on-field implementation of the project in the Gadchiroli and Chandrapur region. The said interaction with various stakeholders and RGSTC authorities, provided an opportunity to discuss on effective implementation strategies, adoption of best practices, and explore means to mitigate challenges in the field. The exchange of valuable knowledge also helped other RGSTC funded projects in enhancing the impact of their respective initiatives within the program, fostering collaboration for sustainable development in the project areas across the state.

STRC Assistance for S & T Application Scheme: 'Mahua Flower Harvester for Forest Fire Prevention'

About Scheme

STRC Assistance for S & T Application Scheme envisages to support faculties, students, researchers, NGOs, and other institutions in their scientific and technological endeavours. This scheme aims to foster a research eco-system in the university through relevant applicable research and innovation by providing financial and technical assistance to eligible applicants.



A research grant in favor of the proposal titled “Mahua Flower Harvester for Forest Fire Prevention” was awarded to Dr. Rahul Krishna Kamble, Associate Professor, Institution of Higher Learning, Research and Specialized Studies in Environmental Science, Sardar Patel Mahavidyalaya, Chandrapur, under the STRC Assistance for S & T Application Scheme (Project UID: 28, Research Grant: INR 0.80 Lakh).

The primary objective of this pilot research is to develop a Mahua Flower Harvesting Tool leading to a long-term outcome to help reduce instances of forest fire in the region. After about six months of research and field trials, the project investigator developed the first prototype of the proposed Mahua Flower Harvester and submitted a Project Completion Report leaving scope for further research and efforts on product development incorporating feedbacks received during field trials on user-effectiveness, portability and use of alternative materials. STRC plans to conduct several field trials followed by assessing feasibility of using bamboo as an alternative material for the product.



STRC must win confidence of the local communities - Hon'ble Vice Chancellor, Gondwana University, Gadchiroli

On April 20, 2024, Hon'ble Vice Chancellor, Gondwana University, Gadchiroli, Dr. Prashant Bokare along with Chief Program Officer and Head, STRC, Shri Ashis Gharai and Scientific Officer, STRC Shri Gandharv Pilare, visited STRC project sites on NTFP Collectivization (*Primary Processing Centre*) and Community Nursery (*Gondwan Vanaushadhi Ropavatika*) at Kharkhadi, Dhanora. During the visit, Dr. Bokare was keen on understanding the current status of the project and the kind of stake the local community has in the said initiative. He was pleased with the progress. The visiting team also took stock of the nursery and discussed on possible improvement needed to be brought in.

Hon'ble Vice-Chancellor also suggested that STRC take up some development activities with the local school to win confidence of the locals.



STRC Bamboo Craft Vertical Team Interacted with the Traditional Bamboo Artisans of Warora to Assess Future Scope

On March 27, 2024, a delegation from STRC visited Waigaon (Bhojar) village in Warora to interact with the traditional bamboo artisans. This village happens to be short-listed by the Model Degree College, Gondwana University under its Vidyapeeth Aplya Gavati initiative.

On the day, over forty local traditional bamboo artisans participated in the interaction. The assembly of artisans was apprised on STRC's effort towards development of skilled cadre of artisans through series of training cum production workshops and development of range of products in the utility craft, lifestyle and in structural use of bamboo sector. STRC team also got an opportunity to assess existing skill set, scope of bamboo craft as a livelihood option and aspirations of the local artisans. As part of the future action plan, STRC may on-board groups of artisans from Warora and enrol them into the regular skilling and production activities.



आदिवासी व ग्रामीण तरुणांना बांबू क्षेत्रात भविष्य घडविण्याची संधी तथा सक्षम व कुशल मनुष्यबळ तयार करण्याच्या दृष्टीने गोंडवाना विद्यापीठाद्वारे सुरु करण्यात आलेला एक वर्षीय पदविका अभ्यासक्रम

प्रवेश प्रक्रिया सुरु

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बांबू उद्योजकता आणि रचना

अभ्यासक्रमाची प्रमुख वैशिष्टे



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बांबू उद्योजकता
केंद्रित अभ्यासक्रम



२
बांबू संशोधन व
विकासाकरिता आधुनिक
व सुसज्ज सुविधा



३
बांबू क्षेत्रातील कुशल
तज्ञांद्वारे प्रशिक्षण



४
बांबूवर आधारित
उद्योगाच्या स्थापनेसाठी
आर्थिक सहाय्य
मिळविण्याची संधी



Director, NEERI, Nagpur and his Team

On April 12, 2024, Dr. Atul Narayan Vaidya, Director, National Environmental Engineering Research Institute (NEERI), Nagpur, a premier national institute striving to provide innovative and effective solutions for environmentally sustainable development and research, called on the Hon'ble Vice Chancellor Gondwana University, Dr. Prashant Bokare, during his two day visit to Gadchiroli. The Hon'ble Vice Chancellor greeted Dr. Vaidya and his team with Bamboo Flower Bouquet (crafted in-house by STRC trained artisans).

During the visit, the delegates were apprised by the Chief Program Officer and Head, STRC, Shri Ashis Gharai, with a comprehensive overview of STRC's unique initiatives and current projects. A campus walk, including a visit to the Model Production Unit and Vaidya Chikitsalay, was organised for the delegates. Gondwana University will soon get into a Memorandum of Understanding with NEERI, Nagpur.



M&E Expert, Shabari Adivasi Vitta Va Vikas Mahamandal, Nasik

On March 27, 2024, Shri. Charudatta Wadhai, M&E Expert, Shabari Adivasi Vitta Va Vikas Mahamandal, Nasik, suggested STRC to register with Van Dhan Vikas Kendra (VDVK) in Gadchiroli as a nodal agency during his visit to the centre. He also provided necessary documents in this regard.



Pracharak, Rashtriya Swayamsevak Sangh, Mumbai

On April 4, 2024 Shri Kshitij Gupta, Pracharak, Rashtriya Swayamsevak Sangh, Mumbai, along with his team visited STRC. Impressed with the on-going activities, curiously inquired about the gamut of initiatives being executed by the centre while interacting with the team.

Project Update: Manav Vikas Mission Funded Projects (2023-24)



Project 1: Bamboo Common Facility Centre (CFC)

Under the Manav Vikas Mission funded project 'Establishment of Bamboo Common Facility Center (CFC) in Kurkheda Block, Gadchiroli as a Rural Enterprise for Skill Upgradation and Livelihood Generation of Traditional Bamboo Artisans', STRC organized multiple training programs to create and standardize production process of Bamboo Flowers. Along with the standardization of processes, artisans were trained on treatment processes of raw bamboo and more efficient production methods. With product specific skilling, the group of artisans have begun to generate income with initial turnover of INR 0.63 lakh during the first phase.



Project 2: Integrated Fish Farming (Fish and Poultry)

Under the Manav Vikas Mission funded project titled 'Integrated Fish Farming (Fish and Poultry) for Livelihood Development of Local Community in Medpalli Cluster, Aheri', STRC facilitated the installation of low-cost Bamboo Composite Poultry Sheds (designed and developed in-house at STRC) at individual sites of project beneficiaries and demonstrated best practices to manage poultry farming adopting an integrated approach to enhance their income. Through this effort twenty such sheds were installed under the project. This initiative promises to generate an additional income for the beneficiaries in coming months.



Latitude: 19.39728
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Certificate Course



Apply Now

Last Date to Apply : May 15, 2024



Bamboo Grower

QP Code : HCS / Q6101

Bamboo Work Artisans

QP Code : HCS / Q8702

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