

**Detailed Project Report on  
Science and Technology Resource Centre (STRC) Foundation  
at Gondwana University, Gadchiroli**



**Submitted by  
Science and Technology Resource Centre (STRC)  
Gondwana University Gadchiroli**

## Preface

Since its inception in 2014, Science and Technology Resource Centre (STRC) at Gondwana University, Gadchiroli, has significantly contributed to the region's holistic development through its science and technology-based programs and initiatives. Anchored in the vision shared by the Rajiv Gandhi Science and Technology Commission (RGSTC) in concurrence with Gondwana University, STRC has leveraged local resources, traditional knowledge, and innovative technologies to drive impactful change in this heavily forested, predominantly tribal, and underserved region of Maharashtra.

Over the past decade, STRC has emerged as a beacon of community-centred scientific advancement. Initiatives like *Mobile Demonstration Unit* for technology dissemination, *Bamboo-based social entrepreneurship*, *Quality fish-seed production at source through aquaculture initiatives*, *Vaidya Chikitsalay* (Preservation of indigenous medicinal knowledge and traditional healthcare practices), *Streamlining non-timber forest produce (NTFP) collection*, *Environment Education Program for Schools*, and other significant initiatives have demonstrated the transformative potential of strategic science and technology interventions. These programs have strengthened local livelihoods, preserved traditional knowledge systems, and empowered community stakeholders, establishing STRC as a model for inclusive and sustainable regional development.

Building on these achievements, it is with better understanding of the development needs of the region that STRC proposes a perspective plan through the Detailed Project Report (DPR) for the year 2025-2029. This proposal outlines the next phase of initiatives aimed at deepening our engagement with the community, fostering innovation, and furthering knowledge-enabled development. Guided by our commitment to addressing regional challenges and capitalizing on untapped opportunities, the proposed programs aim to enhance local capacities, promote sustainable practices, and integrate modern scientific advancements with traditional wisdom.

On behalf of the Science and Technology Resource Centre, I extend my gratitude to the Rajiv Gandhi Science and Technology Commission, the Gondwana University leadership, and all stakeholders who have supported our journey thus far. We seek your continued guidance and encouragement as we chart this new chapter in our shared mission to drive meaningful progress in Gadchiroli.

On behalf of the Experts Panel

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## I. Executive Summary

The Science and Technology Resource Centre (STRC) at Gondwana University, Gadchiroli, presents its Detailed Project Report (DPR) for 2025–2029, outlining a visionary plan to advance regional development through science and technology-driven solutions. Since its establishment in 2014, STRC has emerged as a transformative institution, leveraging local resources, preserving traditional knowledge systems, and integrating innovative technologies to address the socio-economic and ecological challenges of this forested, tribal-dominated, and underserved region of Maharashtra. Guided by the vision of the Rajiv Gandhi Science and Technology Commission (RGSTC), STRC continues to serve as a catalyst for inclusive and holistic regional development.

In its initial phase, STRC's activities were structured around five programmatic streams: Production and Value Creation, Social Forestry, Research and Innovation, Academic Programs, and Community Support. Over time, these streams have evolved into five focused verticals: Aquaculture and Livelihoods, Bamboo Craft and Livelihoods, and NTFP/Medicinal Plants and Livelihoods form the core livelihood initiatives, while Applicable R&D/Academic Program Development and Communication for Development through ICT provide cross-cutting support. Together, these verticals have benefited over 3,000 families across Gadchiroli, fostering sustainable value creation and empowering communities. STRC's initiatives have been bolstered by partnerships with leading institutions such as IIT Bombay, VNIT Nagpur, and MAFSU Nagpur, which have enhanced its technical capacity. By integrating modern scientific advancements with traditional wisdom, STRC has established itself as a replicable model for inclusive and sustainable regional development.

Over the past decade, STRC has implemented several impactful programs that have transformed the livelihoods and well-being of local communities. The Mobile Demonstration Unit for Technology Dissemination has reached over 13,000 individuals across 171 villages in Gadchiroli and Chandrapur, promoting awareness of innovative technologies. Bamboo-based social entrepreneurship initiatives have created sustainable livelihoods for 200 artisans, while the Quality Fish-seed Production Program has enhanced the incomes of 500 fish farmers. Initiatives like *Vaidya Chikitsalay* have preserved indigenous medicinal knowledge, providing healthcare to over 1,900 patients and recognizing the contributions of 12 local healers. Streamlining the collection of non-timber forest produce (NTFP) has improved incomes for 354 tribal households while fostering sustainable resource management. Additionally, the Environment Education Program for Schools has engaged 400 students across 10 schools, promoting cultural preservation and ecological awareness. These initiatives have empowered stakeholders and positioned STRC as a leader in science-based regional development, inspiring similar efforts across Maharashtra.

The DPR for 2025–2029 builds on these successes and lays out an ambitious roadmap for deepening and expanding STRC’s initiatives. The focus remains on integrating science with traditional practices to address critical regional challenges, including sustainable natural resource management, livelihood enhancement, better market access, and the strengthening of traditional artisan economies. Key proposed interventions include the establishment of a Medicinal and Aromatic Plant Resource Centre, the launch of an Aquaculture Technology Facilitation Centre, the development of academic and research programs, the expansion of aquaculture initiatives, and enhanced market linkages through the Gondwana Craft initiative. Tribal-centric education and participatory research will remain central to developing innovative, locally relevant solutions.

The next phase emphasizes capacity building, knowledge dissemination, and fostering collaboration with academic institutions, government agencies, and private stakeholders. A commitment to community ownership and leadership will ensure that initiatives align with the aspirations of the tribal and rural populations of Gadchiroli.

The proposed interventions are expected to deliver measurable outcomes, including enhanced livelihoods, improved education, sustainable resource utilization, and the preservation of cultural heritage. By aligning its programs with regional and global development goals, STRC aims to create scalable models that benefit Gadchiroli and serve as a blueprint for addressing similar challenges in other underserved regions.

This DPR reaffirms STRC’s unwavering commitment to leveraging science and technology as a tool for empowering communities and fostering equitable development. STRC seeks the continued support of all stakeholders in realizing this shared vision, ensuring Gadchiroli becomes a thriving hub of knowledge-driven progress and sustainable development

Detailed draft under review

