

## Gondwana University, Gadchiroli (GUG) MIDC Road, Complex, Gadchiroli – 442 605 (MS) Science and Technology Resource Centre (STRC) RECRUITMENT

STRC is in search of competent individuals who can contribute, develop and manage programs, with need based support and collaboration of resource institutions and individuals. The center is funded by Rajiv Gandhi Science and Technology Commission (RGSTC), Government of Maharashtra, Mumbai.

**STRC mandate**: Development of human resource and appropriate technology for socioeconomic growth linked to NTFPs, aquaculture, food processing and other livelihood means and concerns of the region. STRC will contribute by designing/catalyzing products, services and practices that deliver all round local area development in partnership with local communities. Further, STRC has functional autonomy incorporated in a formal agreement with GUG.

Jobs on offer are for Chief Program Officer as Head- STRC, Program Coordinators for various streams and Resource Persons. There in no age bar per se. Please apply through email by <u>April 30, 2016</u>.

Full advertisement and the STRC documents are available on GUG website: <u>unigug.org</u>, and http://gondwana.digitaluniversity.ac

Auch

Dr. S.M.Rokade Director B.C.U.D. Gondwana University,Gadchiroli

## Science and Technology Resource Centre (STRC) Gondwana University at Gadchiroli (GUG), Maharashtra State

STRC is in search of competent individuals who can contribute, develop and manage programs with need based support and collaboration of resource institutions and individuals. STRC is being funded by Rajiv Gandhi Science and Technology Commission (RGSTC), Government of Maharashtra (http://rgstc.maharashtra.gov.in)

 A. Send a <u>two-page resume</u> including email and contact number and <u>half-page write-up indicating your specific interest/suitability</u> by April 30, 2016 through email only to <u>job1.strcgug@gmail.com</u>.

## Candidates with IT degree without relevant experience will not be considered.

# B. Details on the recruitment and the STRC Document is available on GUG websites <u>http://unigug.org</u> and <u>http://gondwana.digitaluniversity.ac</u>

#### **Background:**

Districts of Chandrapur and Gadchiroli in the south-east corner of Vidarbha are heavily forested, largely tribal and remain among the most underdeveloped in Maharashtra. Among various initiatives to help develop the region, Government of Maharashtra has set up Gondwana University at Gadchiroli (GUG) with jurisdiction over these two districts in October 2011.

STRC mandate: Development of human resource and appropriate technology for socio-economic growth linked to forest produce including bamboo, aquaculture, animal husbandry, food processing, and other livelihood means and concerns of the region - NTFPs. STRC will contribute by

designing/catalyzing products, services and practices that deliver all round local area development in partnership with local communities.

**Appropriate technology** - by itself and as an assist for the traditional way - shall take the center-stage. Further, STRC will have functional autonomy incorporated in a formal agreement with GUG.

As a center for sustainable value creation, STRC proposes five primary program streams: **Production & Value Creation, Social Forestry, Research and Innovation, Academic Programs and Community Support.** 

The implementation of STRC program is planned in two phases. Phase 1 activity to center on the core theme of catalyzing Production and Value Creation along with Community Support.

Phase II establishes a full-fledged STRC as a self-sustaining entity.

**IIT Bombay – CTARA and Bambu Studio/IDC -** has been identified as primary mentoring institution for STRC. Forest Department, Gadchiroli is already active in the region and its participation is considered essential. STRC has/will establish linkages with universities in the region - VNIT-Nagpur, MAFSU, Dr PDKV-Akola, etc. – as well as other institutions (MGIRI, Wardha) and reputed NGOs.

#### Jobs on offer

#### 1. "Chief Program Officer (CPO)" as Head-STRC:

#### • Candidate should be able to appreciate the stakes involved in sustainable value creation.

• Educational Qualification (expected): a postgraduate degree preferably in an engineering discipline or equivalent and possibly a management degree.

#### • Experience:

Exposure to rural sector with  $\sim 10$  year fieldwork-relatable experience

Experience in a senior position in private or Government set-up or with a reputed NGO. **Desired:** leadership and motivational qualities; experience in dealing with Government apparatus as well as University/education ambience. See requirements for other posts as well.

• Consolidated pay within the band: Rs. 75K – 95K pm.

2. "Program Coordinators":

• Educational Qualification (expected): a postgraduate degree preferably in an engineering discipline or equivalent.

• Experience: ~ 5 years of relatable experience suggested.

• Consolidated pay within the band: Rs. 40K - 50K pm.

<u>Immediate requirement is for the following two streams</u>. However, applications may be submitted for other streams – to be considered/kept on record for a period of one year should a need arise.

#### 2A. Catalyzing Production and Value Creation

This stream has two sub-programs: (a) Forest Produce-Conservation & Value Addition, and (b) Technology & Marketing

This position will be responsible in developing skill sets, knowledge and practices for creating value in forest produce and enabling livelihoods. He/she will (i) interact with Forest Department and other entities at the District/State/National level for the existing/running programs and extend these programs, (ii) develop new avenues for value creation, (iii) employ trainers and liaison with other groups in the country in the area of NTFP, (iv) develop marketing strategies

and establish markets for NTFP and (v) organize regular courses for students/artisans of the area where applicable.

#### **2B.** Community Support

For all the extension program functions, distance education, livelihood guidance, and so on, this is an umbrella division that serves as an interface with the world outside.

3. "Resource Persons" for the streams:

Each of the streams will have resource persons to assist with the tasks. This is a starting position akin to a Research/Technical assistant or a Research Fellow/Associate in a professional set up.

• Educational Qualification: preferably a degree/diploma (engineering, science, public health, etc.)

• Experience: some field experience desirable.

• General: An innovative mind and a strong desire for techno-social engagement expected. Short term and need-based appointments are also possible.

• The consolidated pay within the band: Rs. 15K - 30K pm.

#### **GENERAL**:

- i. All the posts are temporary and on contract basis.
- ii. <u>Prepare job resume with care.</u> Make it relevant to the job you are applying for; take help of seniors if required. This will help in getting short-listed.
- iii. A Screening Committee would scrutinize the applications received, as also those identified through a search process, and prepare a short-list for further processing.
  This committee has the right and mandate to tighten/relax the criteria on all counts.
- iv. There is no age bar per se; qualified candidates freshly retired from service can also apply.
- v. Candidates are also welcome to apply for lateral placement from their existing positions elsewhere; their compensation may be protected.
- vi. Short-listed candidates are likely to be intimated through email by May 6, 2016.

Dr. S.M.Rokade Director B.C.U.D. Gondwana University,Gadchiroli

## **STRC Document**

Sourced from: Detailed Project Report on Science and Technology Resource Center (STRC) at Gondwana University, Gadchiroli

Submitted to

Rajiv Gandhi Science and Technology Commission,

**Government of Maharashtra** 

By

Gondwana University, Gadchiroli

Maharashtra State

**September 04, 2013** 

## Detailed Project Report on Science and Technology Resource Center (STRC) at Gondwana University, Gadchiroli

## **Executive Summary**

Districts of Chandrapur and Gadchiroli in the south-east corner of Vidarbha are heavily forested, largely tribal and remain among the most underdeveloped in Maharashtra. Among various initiatives to help develop the region, GoM decided to set up Gondwana University at Gadchiroli (GUG) with jurisdiction over these two districts; it came into existence in October 2011.

Rajiv Gandhi Science and Technology Commission (RGSTC) in concurrence with GUG have taken initiative in proposing the Science and Technology Resource Center (STRC) under Gondwana University at Gadchiroli.

The prime focus of the center is on the forest produce and livelihood concerns of the region. The center will contribute by designing/catalyzing products, services and practices along with upgrading human resource that deliver all round local area development in partnership with local communities. This concept, recognized as **Sustainable Value Creation**, defines the core theme for STRC.

**Appropriate technology** - by itself and as an assist for the traditional way - shall be the backbone of the experiment. By experiment we imply a robust model that provides thrust for development that respects tribal/local traditions, that is well thought out and forward looking in terms of various issues –livelihood, conservation, sustainability, and so on.

As a center for sustainable value creation, STRC proposes five primary program streams: Production & Value Creation, Social Forestry, Research and Innovation, Academic Programs and Community Support.

**Program Coordinators** are to manage the streams, supported by Resource Persons. There is provision for need-based adjunct appointments at all levels. Head-STRC to be called "**Chief Program Officer** 

(CPO)" needs to be selected with due diligence given the nature of the assignment: A selection committee is proposed for the task.

The implementation of STRC is planned in two phases. **Phase 1** initiating the program with a skeletal staff and infrastructure, should take firm roots within a span of two years; **the core themes of catalyzing Production and Value Creation, and Community Support**. The program manifests itself through applicable research, innovation and marketing, and academic initiatives that offer specially designed courses.

**Phase II** builds on maturing of the core program and the experience gained during Phase I to have a fullfledged STRC ready in five years as a planned outgrowth. STRC now has a well developed **Social Forestry** initiative. **Community Support** program also gets established that will include short term certification courses, distance education, e-learning facility and so on; in addition has potential to transform the region with the concept **CILLAGE - An eco-system that incorporates the best of a city and a village - a development model for rural India**.

**IIT Bombay – CTARA and Bambu Studio/IDC -** has been identified as primary mentoring institution for STRC. Forest Department, Gadchiroli is already active in the region and its participation is considered essential. STRC will establish linkages with universities in the region - MAFSU, Dr PDKV-Akola, VNIT-Nagpur, etc. – as well as other institutions and reputed NGOs.

STRC is to have academic, administrative and financial autonomy incorporated in a formal agreement with GUG and approved by the management of GUG. Following modern management practices, the CPO-STRC under the GUG banner must strive for excellence given the operational autonomy and mentoring by frontline institutions.

#### **Total estimated cost for STRC: Rs. 15.7068 Crores**

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#### List of Abbreviations:

#### BIAF-Research: BIAF Development Research Foundation, Pune

**CDI**: Craft Development Institute, Srinagar

**CECP:** Committee Encouraging Corporate Philanthropy, an International Forum of CEOs

CIVN: Center for Innovation, VNIT Nagpur (CIVN)

CTARA: Centre for Technology Alternatives for Rural Areas (IITB)

**DPDC**: District Planning Office and District Planning & Development Councils (DPDC)

Dr. PDKV: Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola

**IDC**: Industrial Design Centre, IITB

KONBAC: Konkan Bamboo and Cane Development Centre

MAFSU: Maharashtra Animal & Fishery Sciences University, Nagpur

MGIRI, Wardha: Mahatma Gandhi Institute for Rural Industrialization (MSME), Wardha

MKCL: Maharashtra Knowledge Corporation Limited

MSME: Ministry of Micro, Small and Medium Enterprises, GoI

NKN: National Knowledge Network

NTFP: Non-Timber Forest Product

RGSTC: Rajiv Gandhi Science and Technology Commission, GoM

SBK: Sampoorna Bamboo Kendra, Lawada (Melghat, Amravati Dist)

SEARCH/ NIRMAN: Society for Education, Action & Research in Community Health,

Shodhgram, Gadchiroli Dist

SINE: Society for Innovation and Entrepreneurship, IITB

VNIT-Nagpur: Visvesvaraya National Institute of Technology, Nagpur

## Detailed Project Report on Science and Technology Resource Center (STRC) at Gondwana University, Gadchiroli

## **1. Introduction**

Districts of Chandrapur and Gadchiroli in the south-east corner of Vidarbha are heavily forested, largely tribal and remain among the most backward in Maharashtra. Among various initiatives to help develop the region, GoM decided to set up Gondwana University at Gadchiroli (GUG) with jurisdiction over these two districts; it came into existence in October 2011.

Rajiv Gandhi Science and Technology Commission (RGSTC) and Gondwana University, Gadchiroli (GUG) have a focused interest in setting up the Science and Technology Resource Center (STRC) under the Gondwana University, Gadchiroli (GUG). The Centre is to leverage resources of the region, and relevant knowledge and technology for capacity building at different layers such as artisans, students and faculty for significant knowledge enabled development of the region. RGSTC has already approved setting up of STRC at GUG. This DPR endeavors to set in motion a process for realizing the STRC at GUG that shall become a paradigm for similar efforts elsewhere in the country.

## 2. Project Evolution and Rationale

#### 2.1 Evolution of STRC Program – Key dates:

- September 15, 2012: the birth of the concept visit of Dr Anil Kakodkar, Chairman-RGSTC to Bamboo Studio in Industrial Design Center (IDC) at IIT-Bombay.
- October 01, 2012: Brainstorming session at VNIT-Nagpur, Chaired by Dr Anil Kakodkar with Dr V S Ainchwar, Vice-Chancellor, GUG, and several experts from the region participating.

Page 1

- January 18-19, 2013: Two day workshop on "Shaping of Science and Technology Resource Center (STRC) at Gondwana University, Gadchiroli: First Steps to CILLAGE in Gondwana region" Organized by Gondwana University in association with Rajiv Gandhi Science and Technology Commission [GoM], IIT Bombay and Forest Department – Gadchiroli.
- May 20, 2013: Sanction for DPR preparation and nomination of the committee of experts.
- September 04, 2013: DPR submitted to RGSTC by GUG
- > December 26, 2013: STRC project sanctioned by the Commission.

On September 15, 2012, Dr Anil Kakodkar, Chairman, Rajiv Gandhi Science and Technology Commission (RGSTC), GoM, suggested initiating an education and development program based at GUG for sustained S&T enabled development of the region leveraging the abundant local forest resources. Matter was also discussed with Prof V. S. Ainchwar, VC-GUG. In this context, a brainstorming session with various stakeholders, including VCs of universities in the region, forest department, national institutions, and so on, was held at VNIT-Nagpur, presided over by chairman-RGSTC on October 01, 2012. After a few more rounds of discussions among various stakeholders, and at the behest of Dr Anil Kakodkar, it was decided to hold a two-day workshop on the theme of "**shaping-up of STRC at Gadchiroli**", to be hosted by GUG and supported by IIT Bombay, Forest Department-Gadchiroli and RGSTC.

The workshop held on January 18-19, 2013 at Gadchiroli was a national event, with ~30 expert participants and presenters from across the nation as well as from within the state. GUG was represented by ~100 invitees. There were several exhibition stalls set up by participating institutions as well.

## 3. Project Concept, Objectives and Scope

### **3.1 Concept STRC-GUG:**

- GUG and RGSTC recognize an opportunity in STRC to play a significant role in addressing fundamental societal issues—seeing those issues not merely as problems to be addressed through charity (a.k.a. handouts), but instead as the seeds of innovation and growth: The center will contribute by designing/catalyzing products, services and practices along with upgrading human resource that deliver all round local area development in partnership with local communities. This concept is recognized as Sustainable Value Creation.
- Studies show that exploitation of Non-timber forest products (NTFPs) could yield higher net revenue per hectare than would timber harvest of the same area, while still conserving vital ecological services. Their economic, cultural and ecological value, when considered in aggregate, makes managing for NTFPs an important component of sustainable forest management and the conservation of biological and cultural diversity.
- The central focus at ground zero for local area development shall be forest produce for/and value creation as livelihood resource through inclusive growth. In the given context, STRC is to leverage integrated development through applicable research, innovation and education, with catalyzing production and marketing as integral aspects of the core theme.
- Appropriate technology by itself and as an assist for the traditional way shall be the backbone of the experiment. By experiment we imply a robust model that provides thrust for development that respects tribal/local traditions, that is well thought out and forward looking in terms of various issues –livelihood, conservation, sustainability, and so on – and that unique character for STRC given association with frontline institutions.

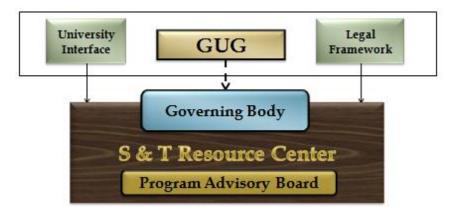
- This Science and Technology Resource Center is mandated to help in local area development through the University route – i.e. GUG. There will assistance for diploma and degree courses offered by GUG, as also short-term certification for varied training programs for artisans. Scope of activities within STRC is wide: Local forest produce and value creation, year-round skills development programs, traditional technology interface, production and marketing technology initiatives, and so on. STRC is to support applicable research in core areas, faculty upliftment programs, strong extension program office that caters to continuing education and outreach programs, and so on.
- IIT Bombay has been identified as primary mentoring institution for Program-STRC. Forest Department, Gadchiroli is already active in the region and its involvement in the program is considered indispensible. The program is expected to receive support from universities in the region - MAFSU, Dr PDKV-Akola, VNIT-Nagpur, etc. - and other institutions and reputed NGOs.
- STRC is to be granted academic, administrative and financial autonomy incorporated in a formal agreement and approved by Management Body of GUG.

STRC shall be a center for sustainable value creation.

## 4. Science and Technology Resource Center [STRC]

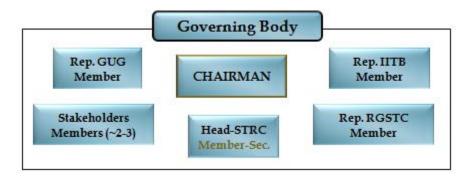
The DPR proposes a configuration for a five year timeline. This Chapter deals briefly with the organizational structure of STRC.

## 4.1 Organizational set-up



It is expected that GUG will evolve proper legal framework and an interface for STRC to be an autonomous body. This activity can perhaps be initiated immediately after the **intimation of sanction** of the project.

## 4.2 Governing Body:



The Chairman of the governing body is expected to be an eminent person, certainly high on the scale of social awareness. Head-STRC is a natural choice for Member-Secretary. Representatives from various stakeholder groups need to be nominated that may include a representative with relevant industry background, after due diligence.

The governing body is to be on par with the top governing and management institutions within the GUG fold. As the governing body has a senior functionary of GUG as a member, the recommendations perhaps need to be vetted only by VC-GUG – as otherwise the concept of autonomy is likely to get diluted.

## 4.3 Program Advisory Board:



This mechanism will help keep STRC tuned to reality out there. This body perhaps meets three times a year on a set day of the month. This is essentially a body of stakeholders and experts in the field at large. Head-STRC in consultation with the Governing body will decide on its composition.

## 4.4 Organizational Structure

**Head-STRC** is to be designated as **"Chief Program Officer (CPO)"**. Five main programs are proposed, to be headed by **Program Coordinators**:

- 1. Production & Value Creation: Includes incubation space and marketing.
- 2. Social Forestry: Agriculture, Bio-resource, Environment, Sustainability.

- 3. **Research and Innovation**: Applicable R&D and innovation for S&T and human Resources.
- 4. Academic Programs: Diploma/certification courses, support to degree courses of GUG, much more.
- 5. Community Support: Continuing education, Outreach, various extension programs.



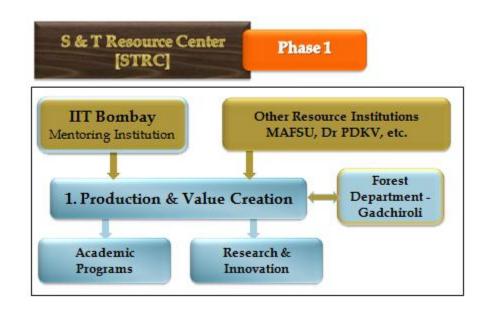
Each program is helped by **Resource Persons**, anywhere from, say, one (initially) to three and more at a later stage. There is provision for need-based adjunct appointments at all levels. **Details of job profile are spelt out in Section 8.** 

## 4.5 Timeline for STRC

Phase 1 (Section 5) is the kernel of the program that gets STRC going – this two-year program builds up experience that helps shape future strategy for a full-fledged center in a systematic way in a five year time frame.

## 5. STRC Phase 1– Getting Started

**Phase 1** schematic as shown here is the program STRC can get started with. This is a two-year initiation program. **Phase I objective** is to get the program going with a skeletal staff and infrastructure that should take firm roots within a span of a couple of years. Activities detailed below and elsewhere will evolve with experience and maturing of the core program. Five year profile for the center should emerge as planned outgrowth of the Phase I implementation.



Sustained long term intervention is necessary for meaningful outcomes. Young individuals need to be motivated to actively respond in an independent manner without excessive dependence on the State. Local/Regional aspirations are to be bridged with the continuous transformations taking place around the world. Importantly, due respect has to be shown for local culture for effective acceptance of the development efforts.

#### **5.1 Catalyzing Production & Value Creation:**

This is and will remain the core program of STRC. Forest produce with value addition and value creation helped by technology intervention, research and innovation, and production and marketing tools as means for knowledge and skills development to usher in newer and better suited means for livelihood as well as livelihood upgradation is the main thrust of the program. This should also help create a professionally trained and motivated human resource to lead overall development. To help the process, maximum functional autonomy must be granted to STRC within the GUG framework, as stated earlier.

More details follow in the next chapter.

Initially the staff could comprise of 3 - 4 dedicated and experienced coordinators, a few resource persons and perhaps one or two faculty (to be sourced laterally from GUG). In this context, a possible approach could be an opportunity on offer to hone sought after skills and an urge for social welfare. The Program Coordinator for **Catalyzing Production & Value Creation** *during Phase I* may be the CPO himself/herself: The position of the **CPO - Phase I** is naturally upgradable to that of the CPO for the fully configured STRC (may be designated as "Program Director") during Phase II. As such this key resource will have a direct bearing on the success of the program. Search for the STRC human resources must begin in right earnest, at the earliest.

In this initial phase, **contribution of IIT Bombay** in its mentoring role is expected to be substantial, as also of the participation of the **forest department**, **Gadchiroli**. Other institutions, particularly from the region, are also expected to participate.

#### 5.1A. IIT Bombay as mentor for STRC-GUG

**IIT Bombay** will specifically help in establishing applicable R&D ambience inclusive of incubation and innovation and suitably tailored academic programs with vocational slant. **CTARA** and **Bambu Studio (IDC)** are the two participating entities of IITB having vast experience of the kind required for establishing a center with a mandate of STRC. Tailor-made one semester programs at IITB for Coordinators/Resource Persons from STRC for acquainting with the IIT way and requisite broad-based training to be able to carry on with the STRC programs are two key activities suggested by IITB.

IITB will also help the concept with planning and helping with implementation of relevant workshops facilities, artisan training modules and so on. A dialog may also be initiated with **SINE** at IITB for help in incubation activity at STRC.

IITB effort is expected to go a long way as also a catalytic resource, helping to synergize the linkage with GUG as well as various resource institutions that are to be roped in.

**5.1B. Forest department in Gadchiroli** district has undertaken several programs on generating and enhancing livelihood options for the tribals and disadvantaged groups dependent on the forests that form a majority in the region leading to contributing significantly to local area development in the process. The department has participation of several 'knowledge partners' from reputed institutions and active Joint Forest Management (JFM) committees. Their diversified contributions are primarily in the following areas:

**Non Timber Forest Produce** – Activities include Bamboo craft with Bambu Studio (Prof. AG Rao)/IDC of IIT Bombay, Agarbatti making with Prof. Padole of VNIT-Nagpur as knowledge partner, fly ash brick making, Hirda, Behada and Charoli fruits products, Lac cultivation with Indian Lac Research Institute (ILRI) Ranchi as knowledge partner and fisheries with MAFSU (Nagpur) collaboration.

**Bio diversity -** Gadchiroli forest is rich in flora and fauna. Forest department intends to develop People Bio diversity Registers (PBRs) with the help of Dr M. R. Almeida of Mumbai as knowledge partner.

Watershed Development program – Gadchiroli district has abundance of rivers and water bodies. Prof. Milind Sohoni, CTARA-IITB will be knowledge partner. In fact, forest department in Gadchiroli has centered the developmental initiative around the watersheds that are in abundance in the district.

Participation of the forest department, with vast resources and experience at their disposal, in the STRC program from the very initial stages of implementation is a key to fast-track the impact of relevant programs. It is expected to be a two-way street, for example forest department sharing the experience and participating in the program and STRC contributing to HR development of the forest personnel for the tasks.

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

## 5.2 Proposed Work Plan

Post-approval Pre-funding	Primary timeframe	Supplementary timeframe
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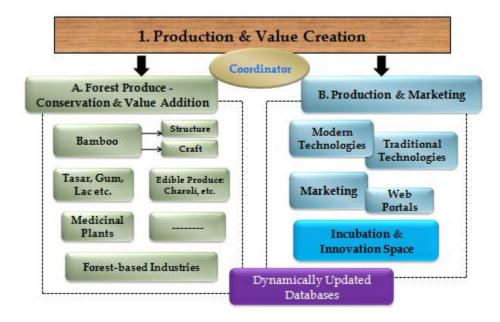
Pre-		PHASE I		PHASE II		
funding		Year 1	Year 2	Year 3	Year 4	Year 5
3-mo	Search for Head-STRC					
3-mo	Autonomy issues: GUG					
	Program Coordinators /Resource persons					
	Semester duration training at CTARA/Bamboo Studio					
	Strategic Plan for Bamboo Craft set-up					
	Model Production Unit					
	Develop one-year diploma course					
	Learning Lab and Creative Communication Center					
	Community Radio					
	Short term artisan training					
	Mentoring- CTARA/Bamboo Studio					
	Civil works					

## 6. Programs in STRC

The programs in STRC are categorized in to five streams (Section 4.4). The Phase I has them in a developing form that should firm up in to divisions during Phase II.

#### 6.1 Catalyzing Production & Value Creation

This is by far the most important division, comprising the core program of STRC. A detailed activity profile could look like this:



#### 6.1. A Forest Produce – Conservation and Value Addition

Research on **non-timber forest product** (NTFP) have focused on three perspectives: NTFPs as a commodity with a focus on rural incomes and markets, as an expression of traditional knowledge as well as a livelihood option for rural household needs, and finally as a key component of sustainable forest management and conservation strategies. These perspectives promote forest products as valuable commodities and important tools that can promote the conservation of forests. In some contexts, the gathering and use of NTFPs can be a mechanism for poverty alleviation and local development. <sup>Wikipedia</sup>

We briefly deal here with some of the **non-timber forest produce** available in abundance in the two districts of Gadchiroli and Chandrapur.

**6.1.A1 Bamboo** as material for structural use has great financial value, as also material for crafts. Solid expertise is available within the State and elsewhere and abroad. Bamboo as forest produce is possibly in need of scientific management.

Bambu Studio of IDC at IIT Bombay is to be consultant to set up facilities in this regard. Sampoorna Bamboo Kendra (SBK) near Melghat (Amravati District) in Vidarbha is another institution that in fact offers Diploma/Degree programs under Open University affiliation. In Vidarbha and rest of Maharashtra, the State has several other groups, KONBAC for example, contributing successfully in developing and implementing bamboo as resource.

#### Proposal from Bambu Studio of IDC at IIT Bombay

**Strategic plan for bamboo craft** and other forest produce to benefit the whole region in consultation with key stake holders like District planning authorities, Forest department and representatives of people need to be prepared. Experience has shown that there is difference in ethnicity and skills across the region. There is thus a need to conceptualize 3 - 4 production cum collection centers for bamboo and other forest produce based on local ambience. Such a strategic approach can lead to a design of **'brand identity'** for Gadchiroli products. Data collection and taking account of existing plans sourced by other stakeholders can synergize and consolidate the overall development. It is suggested to hire private consultants for this task under the guidance of IITB.

**Model production unit in STRC**: This will serve as a production cum training unit for bamboo as forest produce. Proposed activities include

Treatment, processing, finishing and so on;

> Facilitate learning of interns who will be doing diploma in bamboo craft;

 $\triangleright$  A crafts museum and retail shop with traditional and state-of-the-art product collection/process demonstration to attract visitors – casual as well as professional;

> Play a role to assist the formation of cooperative structures/ women's groups, SHG's, micro-enterprises, etc.

> Develop a brand identity through package design.

**6.1.A2 Tasar** silkworm has significant production and further potential in the Gadchiroli forests (The specific species are in fact in endangered list). This is and can be developed in to significant economic resource through scientific rearing and processing for value addition. Apart from Dept of Sericulture in the state, SGB Nagpur University (Dept of zoology) as well as some NGOs have significant knowhow in this field.

**6.1.A3 Medicinal Plants** in the region are an important resource. From forest sourcing to medicinal products, significant value chain can be established and gainfully exploited. (RGSTC has funded a digitization of Aromatic and Medicinal plants Program in Maharashtra.)

**6.1.A4 Other forest products** that hold significant potential include Tendu leaves, Mahua, lac, Charoli, etc. There is work in progress, for example, by forest department, Gadchiroli and Dr PDKV collage at Gadchiroli.

**6.1.A5 Forest Based Industries:** Production and value creation entity needs to have synergy with existing and upcoming forest based industries within as well as outside the region. There is significant presence of bamboo based industries in Gadchiroli and Chandrapur districts, as well as lac processing units for example.

#### 6.1. B Production and Marketing

Traditionally, low economic returns have been forcing the artisan community to explore alternative means of livelihood, as also leading to undesirable migrations to not necessarily greener pastures.

#### 6.1.B1 Technology Initiatives

Conservation and value addition in the context of the forest produce needs technology intervention. Maintenance of traditional technology, upgradation as required and developing/acquiring appropriate technology as necessitated by requirements, all require a strong support base from STRC.

Proposed incubation space has synergic value as livelihood resource and much more.

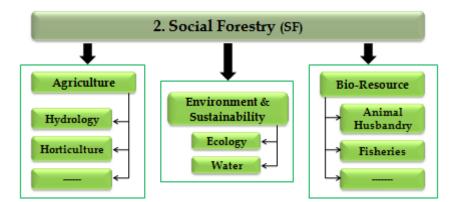
#### 6.1.B2 Production and Marketing

Production, branding, marketing and so on are all resource management tools. Linkages are to be forged with forest based industries. Implementing available e-marketing tools, such as the web portals developed by MGIRI – Wardha is a way to move forward. There are some other portals in the cyberspace that also need to be explored.

#### 6.1. C Dynamically Updated Databases

There are several programs on the same theme running at any given time in the State, and in fact in the country and beyond managed by government bodies, NGOs and industry CSR groups for example. Thus there is significant overlap of activities of similar nature on the one hand and possibly lack of information on sector evolution elsewhere. **There is a practical need for evolving a database that is continually updated.** Managing this activity at STRC is in the interest of the center, region and indeed the nation; additionally, the database itself serves as a significant resource.

#### **6.2 Social Forestry**

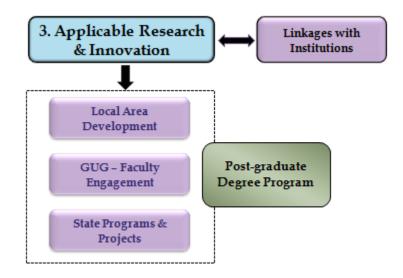


This field covers such diverse areas as Horticulture, Bio-resource (Animal Husbandry, Fisheries), Environment and Sustainability. Importance cannot be downplayed in today's ecological pressure-cooker ambience and vulnerability on the one hand, and issues relating to environmental sustainability and tribal sensibilities at the other end. On its

own, the field sustains and has tremendous potential as a dignified livelihood resource. MAFSU and Dr PDKV are the two institutions that can be roped in to play a leading role, as also some NGOs in this context. This activity is expected to fully establish during Phase II.

#### 6.3 Applicable Research and Innovation

This activity is intrinsic to sustaining STRC mandate. This is at the same time a resource in itself - new discoveries, innovations, products, inculcating research methodology at large, and so on. In the present context, R&D encompasses applicable research in forest management, value chain, production sphere, study of human resource and so on. Lateral placement from GUG establishments and on-loan faculty as well as involving PG/research students from supporting institutions is strongly recommended.



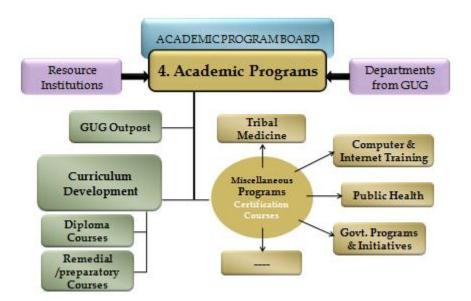
Research in Development, Structure of Governance and State/National flagship programs; various datasets associated with these and familiarity with key processes; knowledge and practice of Government initiatives such as NREGA, drinking water and so on – these are some of the leads for this program.

Incubation facility that leads to innovation needs to be established at STRC. Help could be sought from SINE at IITB as well as CIVN at VNIT-Nagpur, for example.

#### **6.4 Academic Programs**

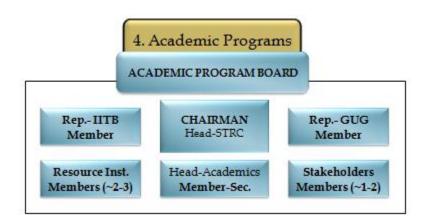
STRC remains symbiotically linked to GUG, and academic programs follow naturally. One-year diploma courses, as also shorter term certification/training courses will be offered. The courses may admit students directly. Students from other streams within GUG should also be eligible. There should be a scope for developing earn-as-you-learn ambience in STRC.

The driving principle in this context is that the creation of professionally trained & motivated human resource will begin to influence the overall character & quality of development of the region that has forest as livelihood resource and where population flavor is tribal.



#### 6. 4. 1 Academic Program Board:

Academic Program Board will supervise academics cutting across various divisions. CPO-STRC (Chairman) and Coordinator-Academics (Member-Secretary) along with a GUG functionary, IITB faculty member, professionals from resource institutions and 1-2 stakeholders could be members. This board will be on par with similar entities within GUG.



#### 6.4.2 Proposals from IIT Bombay

As already stated, IITB is the lead support institution for developing STRC.

#### CTARA:

CTARA (in association with Bambu Studio/IDC) will assist in building capacity of Program Coordinators. This will be in the form of a semester-long mentorship program at IIT Bombay. Focus on the following topics is proposed: Basics of forest research, Research in Development, formulating projects and carrying them out, the role and conduct of field work, Participatory Methodology, Creative problem solving, Design, Visual communication and so on. Most topics above will be learnt by the Program Coordinators in an assignment/ studio task/ project/research paper mode.

#### **Bambu Studio/IDC:**

#### Diploma in bamboo craft -duration 1 year

This unique programme would cover: Bamboo craft skills, products, structural use of bamboo and related disciplines; Modules for Creative Problem Solving; Communication skills, basics of internet use, etc.

For school dropouts: A remedial course of 4 to 6 months to complete 12<sup>th</sup> standard exam is suggested. During that period students will also work in the **model production unit** to get financial support.

Curriculum development based on local culture for designing education will be developed. Course materials for the trainers in video and workbook formats will be developed. Resource persons from SBK and others will be invited to participate. Knowledge base developed over several years at Bambu studio on tools, moulds etc. will be put into academic format. The resource material will be useful throughout the country as well.

#### Training four resource persons (craft trainers) in bamboo craft:

One semester exclusive training programme for craft trainers from the area will be conducted at bamboo studio. They will be trained to use the educational resource material. They will become crafts-studio faculty for one-year diploma course. They will be also engaged in continuous craft skill up-gradation training of craft persons in the area.

**Program Coordinators** who will come for training and research exposure in CTARA will also go through one month training at Bambu Studio to enable them to conduct one year diploma programme.

#### 6.4.3 STRC Initiatives:

A Post-Graduate Program at STRC can be conceived to create managers and entrepreneurs (in local resources) for establishing competitive enterprises. Such an initiative will set an example for professionalizing the sectors under focus and thus help in bringing the sought after development. Possible target courses could include, for example, Artisan Capacity Development, Craft Innovation and Development and Marketing Management. Course content could be designed keeping the broad objectives of STRC in focus. Research degrees are also on the agenda.

Let it be stated here that degree programs are GUG prerogative; STRC will synergize with GUG for the initiatives stated, as also be a vehicle to allow a ride to help reach the destination. This is termed "GUG Outpost" in the schematic above. Joint faculty positions may be put in place in the STRC context.

Additionally, and importantly, remedial course work for students who could not clear the school board exams is envisaged to make those students eligible for regular course work. This latter provision could be part of Community Resource Program as well. As stated elsewhere, Bambu Studio has concrete plans to help in this task.

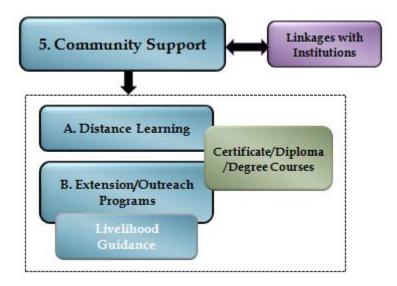
**Miscellaneous programs** on Tribal Medicine, Public Health, Community Ophthalmology, Computer and Internet, and so on, can be well supported for certification courses with proper planning. Well established NGOs for example, may be expected to join in the effort. Some of the employment avenues that could open up are, Design coordinators, Craft Managers, Entrepreneurs, future Trainers, Craft/Design Teachers, Working in Govt. Organizations, Serving/Starting NGOs, and so on.

Some (recurring) revenue generation could come from admission & tuition fees from students, as well as from short-term programs based on specific modules developed in situ.

## **6.5 Community Support**

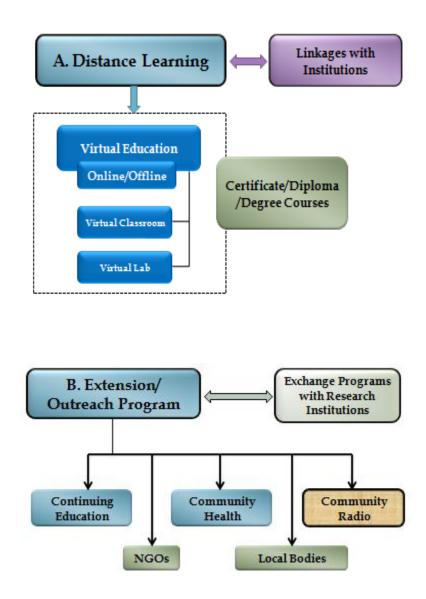
CILLAGE - An eco-system that incorporates the best of a city and a village a development model for rural India [Dr Anil Kakodkar: DNA of Rural Development]. This is a concept that marries the S&T driven socioeconomic space with traditional rural ecosystem – incorporating the proven best practices and local sensibilities.

STRC is certainly a platform to bring about a fair and dignified integration that the concept CILLAGE strives for. The Community Support Program can orient itself to contribute in this direction.



All extension and outreach programs are to be part of this division. We also address other resource like for example, Distance Learning, Continuing Education, Livelihood Guidance, and so on. Digital Media Lab and high-speed WI-FI connectivity for STRC is proposed. It should be possible to specially design relevant certification courses as well. Resource institutions have a role to play in this context.

Livelihood Guidance is more than a placement center – It also caters to self-help and community effort in value generation in the local ambience.



**6.5.1 Other Programs/Packages:** These include, for example, year-round short-term training programs for artisans, SHGs and so on that are to be covered in respective Divisions. It will be in order for the Center to scout for potential trainees from the local tribal and backward communities, as well as others who could be a useful resource. Essentially, programming flexibility needs to be mandated in STRC. For all the STRC divisions listed above, suitable linkages with resource institutions are to be put in place.

**6.5.1a Community Radio** is proposed to help the cause of Gondi language of the local tribal population. Gondi language groups extend beyond the two districts of Chandrapur and Gadchiroli to Bhandara, Gondia and parts of Andhra Pradesh. This proposal needs expert inputs. [GoM has expressed interest in radio transmission in Gondi language– Lokmat dated July 05, 2013]. Details will follow in a separate annexure.

#### 6.5.1b Learning Lab / Creative Communication Centre (LL/CCC)

Proposed by Bambu Studio/IDC.

The facility would play three lead roles.

#### a. To Energise School Education

Learning lab aims at improving the school education in the area to make it meaningful and modern. Improving learning of Science, Mathematics and Design in Ashram Schools through experiental learning will reduce the school dropout rate in the long run. It would introduce craft as well as computer education in the schools. A model mini bamboo studio for Ashram schools will be offered through the Learning Lab.

Experimental workshops like "Bammetry" (Symmetry with Bambbo), "Baans se Ganith" held at SAMPARC Tribal school (Bambarde) and research on TLPs (Teaching Learning Platform) have generated a frame work for such work. LL can become a vehicle to gain from the experience of NGOs like BAIF in teaching of Math to tribal youth, etc. **These activities can become a base to improve D.Ed and B.Ed programmes of GUG.** 

#### b. Lab on Wheels

Designing and creating exhibition panels on mobile platforms for training the villagers on forest produce/wealth (bamboo plantation, Lac and honey cultivation, water conservation, veterinary practices, health training, appropriate technologies etc,.) will be undertaken in the Learning Lab.

It can become outreach wing for science and technology dissemination of demonstration projects of AKRUTI/TTCD/BARC, MAFSU, Dr PDKV and so on. LL/CCC will augment and assist the field training programmes of the Forest department and other NGOs in the area.

BIT (Bridge Language Inventory) for Gondi language developed in projects like Janashala (UN assisted) can be used to reach out to tribals in the interiors.

#### c. Technology Assisted Learning (TAL)

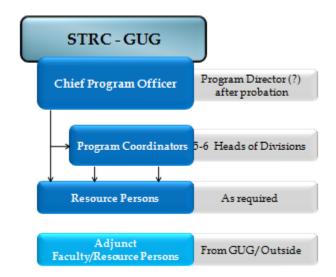
The lab will be equipped with computers and audio facilities for TAL for Maths, Language and Internet use. Local talents can be engaged in translating the knowledge base into 'Gondi' language for radio transmission. Cultural modes like folk songs, dances and narratives can be coupled with Science and Technology Melas in addition to educational entertainment through community radio (Section 6.5.1a above).

**Learning Lab / Creative Communication Centre (LL/CCC)** is a facility around which some of the major streams under "Community Support" could be organized for effective implementation.

## 7. Job Profiles – Technical

At the outset let it be stated that positions in STRC while they may have equivalence for, say, protocol vis-a-vis GUG, the proposed mandate necessitates alternate job profiles, designations and organization structure.

Apart from CPO (7.1), priority appointments For Phase I are of Program Coordinators for Catalyzing Production and Value Creation (7.2A) and Community Support (7.2E).



## 7.1 Head-STRC [CPO]:

To fruitfully fulfill the mandate of STRC, the position of Chief Program Officer (CPO) calls for nothing short of a head hunt at national level. Maximum possible functional autonomy for the Center is perhaps the carrot in the present context. Constitution of a search & selection committee comprising of 3-4 senior experts from diverse yet relevant walks of life is recommended.

**CPO-STRC** will be responsible for managing STRC and executing its mandate; should be able to appreciate the stakes involved in **sustainable value creation**. Experience may outweigh basic educational background which is *suggested* as at least a postgraduate

degree in an engineering discipline. Expect ~ 10-year fieldwork-relatable experience, with expertise in rural management/development sectors; experience in a senior position in private or Government set-up, or with any top ranking NGO with leadership / motivational qualities. Should be able to adjust to backward/tribal environment; desirable experience to have in dealing with Government apparatus as well as University/educational ambience.

Phase I tenure may serve as probation for the CPO.

**Consolidated pay within the band Rs. 75K – 95K pm is recommended.** (Roughly on par with Associate/full professor)

#### 7.2 Program Coordinators:

Scaled down version of **7.1** above; **consolidated pay within the band Rs. 40K – 50K pm is recommended.** (These posts are roughly on par with Assistant Professor)

**7.2A Catalyzing Production and Value Creation**: Qualification equivalent to M. Tech. and ~ 5 years experience suggested. This position will be responsible in developing skill sets, knowledge and practices for creating value in forest produce and enabling livelihoods. He/she will (i) interact with Forest Department and other entities for the existing/running programs and extend these programs (ii) to develop new areas for value creation (iii) employ trainers and liaison with other groups in the country in the area of NTFP (iv) develop marketing strategies and establish markets for NTFP (v) organize regular courses for students/artisans of the area where applicable (see later).

There are two sub-programs proposed in **Production and Value Creation** division as **[A] Forest Produce - Conservation & Value Addition and [B] Technology & Marketing.** Possibly two coordinator positions may be thought of.

**7.2B Social Forestry:** Advanced degree in the field of Agriculture/Bio-resource/Ecology or a related field, with relevant broad-based experience is expected. This field, in the present context, covers areas in agriculture domain, technologies for bio- resource sustainability/production and environment.

**7.2C Applicable Research:** As a bridge between resource technology and Academics, it is to serve as a vehicle for continuing advancement of the region. A (doctoral) degree with relevant research experience may be desirable.

This position will develop and coordinate applicable research for STRC. The problems for research will be specific to the region, its people and their development. He/she will liaison with other area coordinators and faculty members and develop specific R&D leads. He/she may assist GUG faculty members in writing proposals for various funding agencies, conduct of research and its deployment. He/she may also cater to the knowledge needs of various state programs and projects.

**7.2D Academic Programs:** From curriculum development and research capability to lateral associations with educational institutions, this post is to be on par with a 'Faculty Dean" in a University. A doctoral degree is a desirable prerequisite with relevant experience. This division is supervised by an "Academic Program Board".

This position of **Coordinator** may help develop courses for the Bachelor and Masters level students of GUG and elsewhere which are specific to the region and provide important knowledge inputs for STRC. He/she will develop linkages with various state agencies and develop educational modules suitable for these programs. He/she will coordinate and guide project-work for students and develop a faculty base engaged in this work.

STRC is facilitator for GUG academic activities as also a work platform after due clearance on case basis. Inviting faculty to serve appropriate purpose is certainly called for. IITB shall be a specific mentor for this activity.

**7.2E Community Support:** For all the extension program functions, distance education, livelihood guidance, and so on, this is an umbrella division that is an interface with the world outside. The Coordinator may be qualified at post-graduate level with suitable experience. IITB as mentoring resource is specifically significant in this context.

#### 7.3 Resource Persons for the Divisions:

Each of the divisions above will have trained resource persons to assist with the tasks. By resource person we imply a starting position akin to a Research/Scientific/Technical assistant or a Research Fellow in a professional set up; with requisite background, an innovative mind and a possibility of training in IITB on offer. The label "resource person" is preferred as it also entails significant field-social interactions.

A degree/diploma (engineering, medical, etc.), field experience and a strong aptitude for technosocial engagement are desirable prerequisites. Short term and need-based appointments are also possible. The consolidated pay band Rs. 15K – 30K pm.

## 7.4 Adjunct Positions

The position of Resource Person on the one hand has upward mobility within STRC while on the other hand a task specific invitation is contemplated for a fixed tenure wherein usual norms may be given a go by. In fact, a situation akin to PGs helping run medical institutions, or helping out university research in foremost institutions may be a good parallel. A two-way benefit is there to see for all the stakeholders.

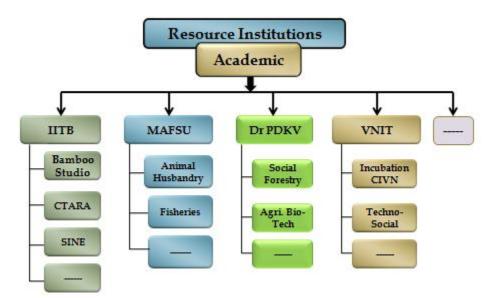
In such a case, this position may be prefixed "adjunct" to the position held elsewhere.

This category of **visiting staff at all levels** should be a lifeline for STRC, and is to be managed prudently. The CPO and perhaps the mentors are expected to plan and propose invites to further the goals of STRC in a holistic fashion. Suitable honorarium/Consultancy provisions should be properly budgeted.

## 8. Resource Institutions

These could be divided in to two broad categories: Academic and non-academic resource. Specific proposals from resource institutions and others may be sought to augment STRC effort. It is suggested that a contingency fund (recurring) may be set aside for enabling the joint ventures and consultancy.

#### 8.1 Academic Institutions



**IIT Bombay** is designated as a mentoring institute for the STRC program. It is expected that GUG enters in to a formal agreement with IIT Bombay to this effect. **Bambu Studio of IDC and CTARA** are identified partners. **SINE** is another venture that can be approached for incubation expertise.

**Bambu Studio:** Bamboo Studio intends to nurture the bamboo craft to create new products made of craft with industrial discipline and appropriate technologies. Under a UNDP sponsored project through Ministry of Textiles, Government of India, a Tool kit with 33 items and 4 Hand operated Machines was designed and developed by a team of designers and engineers lead by Prof. A.G. Rao. Tool Kits and Small

Machines were brought into production with several field trials and feedback. The tools in the tool kit cover various operations in bamboo craft from cutting of bamboo to final finishing. New well studied products are continuously developed in the Bambu Studio through M.Des projects and a unique elective 'Craft,Creativty and Post Modernism' attracts students from other departments and other countries in addition to IDC.

**CTARA**: The **Centre for Technology Alternatives for Rural Areas** was established in IIT Bombay in July 1985 for the purpose of developing technologies in relation to the specific needs of a small region. The objectives imply the following perspectives:

- To develop appropriate technology and concept based on application of basic and engineering sciences.
- To work on the relevant problems to bridge the gap between the needs and resources of a specific region.
- To disseminate information on the developed technology and carry out demonstration to create an increased awareness amongst the users.
- To analyze the impact of technology and development in the context of small region.

From July 2007 the CTARA has started a 2 years M. Tech. Programme in Technology & Development."

**SINE:** Society for Innovation and Entrepreneurship, hosted by Indian Institute of Technology Bombay is an umbrella for promotion of entrepreneurship at IIT Bombay. SINE administers a business incubator which provides support for technology based entrepreneurship.

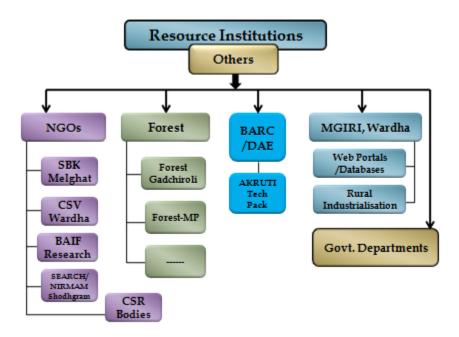
**MAFSU** – Caters to the fields of animal, dairy and fishery sciences. MAFSU strives for creating rural employment, economic prosperity and wellbeing of the resource-poor farming community in the state through viable and vibrant research and impact making extension education services; contributes to public health research with an ultimate aim to enrich human nutrition and welfare. Provides an environment for conducting need based highquality research, applying the best outreaching strategies and practices.

**Dr PDKV**, **Akola:** Social forestry programs in all components- horticulture, ecology, water, etc. as also forest resource activities could be helped by this leading agriculture university having significant presence in Gadchiroli District.

**VNIT-Nagpur:** VNIT has CIVN, a nascent incubation center that has been funded by RGSTC. There is significant techno-social contribution to the region (in bamboo technology, foundry, smithy, etc.) from this institution over decades.

## 8.2 Other Resource Institutions

[Entrees in the Schematic are illustrative.]



**Forest Department, Gadchiroli** has a very significant role to play in program STRC (Section **5.1B**). They are expected to contribute their experience towards forest produce and value addition, training programs, district administration interface, and so on. Experience of Forest Dept., MP, in value addition, branding and marketing can be an additional resource.

**Technology Transfer & Collaboration Division /BARC:** Under DAE-Societal Initiated 'AKRUTI' programme, the technology deployment exclusively in rural sector is offered on chargeable basis in the form of technology package called AKRUTI Tech Pack consisting of technologies and technical consultancy service at an affordable price. It is possible to set up AKRUTI Tech Pack arena near STRC-GUG with linkages developed over a period.

**MGIRI, Wardha** (MSME institution) has web portals development as also other products in the category of small and micro scale industrial development.

**SEARCH/NIRMAN (Shodhgram, Gadchiroli Dist.):** This internationally recognized NGO has done remarkable social work in the area of public health, livelihood and education for the tribal areas. NIRMAN specializes in awakening and directing social instincts of the educated youth, engineers and doctors included, across Maharashtra for community welfare.

**BAIF-Research** needs no introduction. The NGO is also active in the region.

There are a number of other **reputed NGOs** - SBK (Melghat; detailed elsewhere), CSV (Wardha), & so on- some or all could be appropriately roped in. It may be possible to approach CSR functionaries from industries for helping with the programs at STRC.

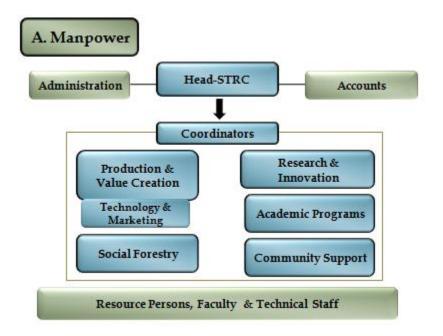
Role of **Government Departments** (State as well as Central) in contributing to the Programs at STRC cannot be underestimated. Synergy must be established between various development schemes and STRC-GUG. It is also possible to develop training programs for Government personnel, use expertise where available and creatively employ available funds for local area development vis-à-vis STRC mandate.

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## 9. Project Support

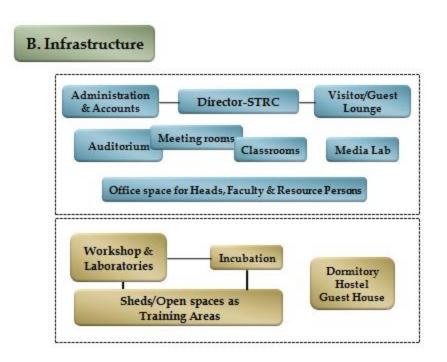
#### 9.1 Manpower Requirement

**Phase I** of the program, as discussed in **Section 5**, can begin with perhaps three-four Coordinators and equal number of Resource Persons. A skeletal office staff, say, one or two assistants and one accountant may suffice for Phase I.



#### 9.2 Infrastructure

GUG will provide state of the art office for the Head – STRC in the Administration Block of GUG at Gadchiroli till permanent arrangements are in place. Possibly makeshift accommodation will need to be provided as the program gets initiated; by end of Phase I, STRC should be in a position to move in to permanent quarters.



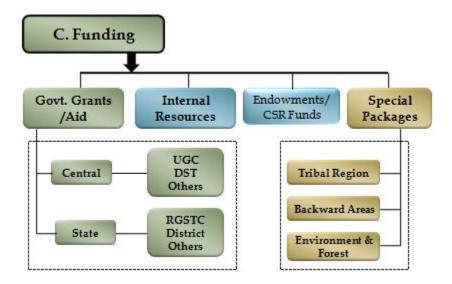
- I. Administration block for housing the offices of Head and Coordinators, administration, accounts and store, classrooms, auditorium, meeting/seminar rooms, visitors area, media lab, broadband/wi-fi connectivity and internet with a few nodes to begin with. There should also be provision for offices for other faculty and resource persons.
- II. Workshop(s), Lab space & Open shades to house training and production facilities.Space for Incubation center may form part of this facility.
- III. Dormitory for short and medium term trainees; Hostel for students; Guest House for visitors.

Innovative low-cost designs employing alternate technology and materials – appropriate for the concept STRC and the geographical and physical location – are strongly recommended. Barring perhaps the main Office Block, no two-story structure may be constructed. Experiments in construction, materials, energy sources, and so on could be in-sourced from the local ambience with proven guidance sought nationally.

Land to house STRC, estimated at four acres initially has been provided by GUG near the Administrative Block in Gadchiroli town.

## 9. 3 Funding the Program – STRC

Seed funding and funds for the program STRC will have to be sourced pragmatically. For several years, it may not be possible to fund the program from internal resources at any significant level. Here follows a schematic that outlines the possibilities.



#### Annexure:

#### A Brief Report on Two day workshop on "Shaping of Science and Technology Resource Center (STRC) at Gondwana University, Gadchiroli: First Steps to CILLAGE in Gondwana region"

Organized by Gondwana University in association with Rajiv Gandhi Science and Technology Commission [GoM], IIT Bombay and Forest Department – Gadchiroli

## Date & Place: 18th & 19th January 2013, Gondwana University, Gadchiroli, Maharashtra

The workshop objectives covered a wide canvass in the context of setting up a STRC at Gadchiroli, with a core theme of value addition and livelihood issues of the largely forested and tribal districts of Gadchiroli and Chandrapur in Maharashtra. The present activity was initiated by RGSTC for generating inputs for the proposed STRC. The two-day workshop was attended by ~30 resource persons from Maharashtra and other states and ~100 invitees from GUG, and included 23 presentations by experts.

Inauguration function was presided over by Hon. Shri Sanjay Deotale (Environ. & Culture Minister, GoM), Hon. Shri Shantaram Potdukhe (Ex. Min of State-Finance, GoI) and Shri Abhishek Krishna, Dist. Collector, Gadchiroli, among others. Dr Anil Kakodkar was the Chief Guest and the keynote speaker.

As the attached list of presentations would indicate, topics covered include:

- Value-addition to forest produce with significant stress on bamboo for crafts and as structural material
- Various technology packages as livelihood resource for rural sector
- Technology innovation at grassroots levels
- Web portals for wide access to local resources
- Education as a tool for empowerment and university as a resource
- Rural health and traditional medicine
- CILLAGE: An eco-system that incorporates the best of a CIty and a viLLAGE

There were also several exhibition stalls set up by participating institutions exhibiting value added forest produce including Tasar silkworm and fish-stock enhancement, bamboo structures and crafts and herbal products. An on-site erection of bamboo reinforced cement frame structure for low cost buildings by forest department, Gadchiroli and a geodesic dome made from bamboo by Sampoorna Bamboo Kendra (Melghat) were additional highlights.

The workshop offered opportunities for formal and informal interaction that was indeed an expected bonus. The concluding program was a panel discussion session for the resource persons, chaired by Dr Anil Kakodkar, Chairman-RGSTC and participated by Shri B. Venugopal reddy, Divisional Commissioner, Nagpur and Dr Abhay Bang of SEARCH. **The recommendations** are summed up as follows:

- **GUG** is an important knowledge asset for the districts of Chandrapur and Gadchiroli and *GUG's development and strengthening is of prime importance*.
- STRC, as a knowledge and skills resource center, should be recognized as a step in this direction.
- **STRC** will showcase a facility that is unique, and probably first of its kind in the nation.

Dr Prakash M Dolas (with inputs from resource persons) Coordinator, STRC-GUGAdvisor, RGSTC