

## **PROJECT TITLE:**

A Value Chain on Utilization of Banana Pseudostem for Fibre and Other Value Added Products

## **PROJECT DETAILS:**

Date of Start : 1<sup>st</sup> June, 2008  
Likely date of Completion : 30<sup>th</sup> June, 2012

### **1. Name of the Component of the National Agricultural Innovation Project (NAIP):**

Production to Consumption System Research (Component 2) of NAIP. [www.naip.icar.org.in](http://www.naip.icar.org.in)

### **2. Consortium Leader and Consortium Partner**

<b>Consortium leader and partner</b>	<b>Name &amp; Designation of Head of Institute</b>	<b>Telephone, Fax Number Email &amp; Website address</b>
<b><u>Consortium Leader</u></b> Navsari Agricultural University	Dr. R.G. Patil Dr. B.N. Kolambe	(02637) 283869 Fax No. (02637) 284254 & 284160 <a href="mailto:vc_nau2004@yahoo.co.in">vc_nau2004@yahoo.co.in</a> <a href="mailto:naipnau_nvs@yahoo.com">naipnau_nvs@yahoo.com</a>
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### **3. Name and designation of the consortium Principal Investigator:**

<b>Name &amp; Designation</b>	<b>Institute/ Organisation</b>	<b>Contact Details</b>
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#### 4. Names and designation of the Consortium Co-Principal Investigator (CCPI):

Name & Designation of Consortium Co-Principal Investigator (CCPI)	Institute/ Organisation	Contact Details
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#### 5. Objectives of the project:

- Standardize processes for extracting textile grade fibres from pseudostem and prepare home furnishings
- Standardize processes of pulp and paper making from pseudostem, fibres and scutching waste both at hand made and industrial levels
- Develop value added edible products from central core
- Preparation and evaluation of enriched sap and scutching waste vermicompost
- Develop linkage for marketing of pseudostem based products

6. Duration of the project : Four years and one month

7. Total cost of the project : Rs. 581.56 lakhs

8. Operational area of the project : Value –chain By-products

#### 9. Five main innovations being tried:

- Innovative garments from pseudostem fibre
- Preparation of microcrystalline cellulose (MCC) and cellulose powder (pharmaceutical grade) from fibres
- Use of pseudostem sap as mordant for textile dyeing
- Value added edible products from central core
- Use of sap as liquid fertilizer

## **10. The Outputs:**

- Banana pseudostem based
  - ☛ Quality fabrics / home furnishing
  - ☛ Paper and board
  - ☛ MCC and cellulose powder (pharmaceutical grade)
  - ☛ Edible products
  - ☛ Enriched vermi compost
  - ☛ Organic liquid fertilizer

## **11. Expected Outcome and Impact of the Project:**

### **Outcomes:**

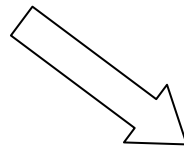
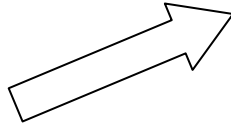
- Mechanized extraction units for fibres and sap from pseudostem
- Commercial scale processes for use of fibre in textile and paper industries
- Processes for preparation of edible products from central core
- Process for extraction of mordant from sap
- Marketing strategy
- Trained manpower (Scientist and Farmers)
- Employment generation and entrepreneurship promotion

### **Impact : (Environmental and social )**

Once the proposed value chain on utilization of banana pseudostem is operationalized, following benefits are expected to flow to the farmers, weavers and industries (textile and paper)

- Increase in income of farmers through fibre selling and partial reduction in fertilizer bill
- Employment generation in rural and urban areas
- Alternative natural raw material for textile, paper, food and pharmaceutical industries
- Environmentally safe disposal of banana pseudostem
- Less lignin content in fibre require minimum treatment for pulping
- Mordant as natural dyes for textile industry

## 12. Schematic Representation of the Project:



### **13. Composition of Consortium Advisory Committee :**

#### **Chairman**

Dr. P Rethinam  
Retd. Chairman,  
Coconut Development Board, Kochi,  
Bhagireth, 18, Laxshmi Nagar, S.N. Palayam,  
Sugarcane Breeding Institute  
P.O., Coimbatore – 641007, Tamil Nadu.

#### **Member**

Dr. S.R. Gandhi  
Retd. Director, MANTRA  
4-Anand nagar Society, Sangrampura, Surat – 395 002

#### **Member**

Dr. M.M. Mustaffa  
Director, National Research Centre for Banana  
Thogamalai Road, Thayanur Post,  
Tiruchirapalli- 620 017 (Tamil Nadu)

#### **Member**

Shri Arvindbhai K. Naik  
Padgha, Navsari – 396 445 (Gujarat)

#### **Member**

Shri Jagdishbhai Z. Patel  
Chairman, Banana Cooperative society,  
Kamrej Char Rasta, Kamrej, Dist Surat

#### **Member**

Shri Deepakbhai S. Patel  
Chairman, Fruit and Vegetable Growers Mandali  
Sardar Bagayat, Baradoli  
At. Vanesha, Surat

#### **Member**

Shri Dinesh Zaveri  
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Athwa Road, Surat – 395 001

#### **Member**

Smt. Deepaben T. Patel  
Women SHG  
At & Post Kamrej, Surat

#### **Ex-Officio**

Dr. J.P. Mittal  
National Coordinator (Component -2),

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**Ex-Officio**

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Director of Research & Dean PG Studies

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**Ex-Officio**

Dr. R.G. Patil (CPI) / Dr. B.N. Kolambe (CoPI)

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**14. For Further Details Please Contact:**

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