

## Template for Environmental and Social Safeguards Management in NAIP\*

**Project Title:** Genomics of cotton boll and fiber development

### 1. Basic information

#### A. Project Data

##### Project Statistics

**Total Cost:** Rs.852.75 lakh

**Duration:** Four years and three months

**Location:** New Delhi and Dharwad

- **Consortium Leader:** International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi
- **Consortium Partners:** National Research Centre on Plant Biotechnology (NRCPB), New Delhi  
: University of Agricultural Sciences (UAS), Dharwad
- **Consortium PI:** Dr. V. Siva Reddy
- **Consortium CPI:** Dr. P. Anand Kumar  
: Dr. I. S. Katageri

- **Project Objectives:**

1. Construction of EST database of *Gossypium hirsutum* from tissues derived from various growth stages of boll development.
2. Identification of genes that are up and down regulated in the developing boll under bollworm attack and drought and nutrition stress.
3. Assignment of functions to key genes involved in cotton fiber length and quality
4. Isolation and characterization of promoters for the genes expressed specifically in bolls and are strongly up regulated

- **Brief Project Description:**

The project aim to identify and clone the genes and promoters involved in the development of boll and fiber and the influence of abiotic and biotic factors on their expression. Function of some of the candidate genes and their promoters will be validated using transgenic approach.. The long term goal of the project is to isolate genes/promoters which could be used to improve the quality of cotton fiber.

#### B. Environmental Category:

### 2. Major issues in the subproject

- Social
- Environmental

### 3. Safeguard Policies Triggered (word Bank Policies)

Safeguard Polices Triggered (World Bank Policies)		
	Yes	No
Environmental Assessment (OP/BP 4.01)	[ ]	[X]
Natural Habitats (OP/BP 4.04)	[ ]	[X]
Pest Management (Op 4.09)	[ ]	[X]
Cultural Property (draft OP 4.11-OPN 11.3-)	[ ]	[X]
Involuntary Resettlement (OP/BP 4.12)	[ ]	[X]
Indigenous Peoples (OD 4.20)	[ ]	[X]
Forests (OP/BP 4.36)	[ ]	[X]
Safety of Dams (OP/BP 4.37)	[ ]	[X]
Projects in Disputed Areas (OP/BP 7.60)	[ ]	[X]
Project on International Waterways (OP/BP 7.50)	[ ]	[X]

4. Risk related Issues (not covered under 3 above but perceived to be important in the sub project) **Nil**
5. Impact Assessment (Annexure-I and II)
6. Potential indirect and / or long –term Impacts due to anticipated future activities in the project areas (Assessment of conflict / complimentarity with the likely anticipated activities current as well as proposed in the next five years) **Nil**
7. Identify the stakeholders and describe mechanisms for consultation/disclosure so far done (Widely sharing the documents on the subproject, other mechanisms to get a buy –in with the stakeholders including the farmers). **Not Applicable**
8. Consultation / disclosures in future (Local disclosure through mechanisms such as launch workshop, interfaces during the implementation stage of the sub-project for sharing the result of the soliciting the feedback) **Two workshops are planned during the project period to train students/scientists.**

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**CPI**

**Dr. V Siva Reddy**

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**NC, NAIP**

**Dr. A. Bandyopadhyay**

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**ND(NAIP)**

**Dr. Mrutyunjaya**

**Table 1: Environmental Safeguard: Activities, Issues, Impact and Measures**

Activities <sup>1</sup>	Issues <sup>2</sup>	Anticipated level of		Mitigation Measures (Negative Impact) <sup>4</sup>
		Impacts <sup>3</sup>		
		Positive	Negative	
Development of improved cotton	Effect on Agro-biodiversity	Positive	Nil	

**B. Social Safeguard: Activities, Issues, Impact and mitigation Measures**

Activities	Issues	Anticipated Level of		Mitigation measures (Negative Impact)
		Impacts		
		Positive	Negative	
Generation of EST data bank	Availability of gene sequences involved in fiber development	Positive	-	-
Generation of proteome data bank	Availability of protein sequences	Positive	-	-