

CONSERVATION AND DEVELOPMENT OF GUGGAL IN GUJARAT STATE

Need of project

- *Commiphora wightii* or ‘Guggal’ is one of the high value medicinal plant species found growing in arid or semi-arid region of India (particularly in Gujarat States)
- The oleo-resin gum of this plant is extensively used in ASU (Ayurveda, Siddha & Unani) system of medicines
- However, the population of this species is declining as the plants generally dies due to unscientific collection methods of Guggal gum in destructive manner and difficulty in its natural regeneration/artificial regeneration else where in India
- Hence, this species has become endangered and facing threats of extinction
- Therefore, it is necessary to conserve the wild germplasm/resource and develop nursery raising techniques for this species and identification of superior quality gum producing plants for clonal multiplication
- Accordingly, considering the above facts, the NMPB, Govt. of India during financial year 2010-11 supported a project (PROJECT NO. CONS/GUJ-01/2010-11) to Department of Environment & Forest, Gujarat State for Conservation and Development of Guggal in Gujarat state for a period of 5 Years duration.

Objectives & targets of the project

- a) To establish 6 Medicinal Plants Conservation Areas (MPCAs) in 250 hectare each covering total of 1500 hectare area in Gujarat State
- b) Establishment of 2 Seed Production Area (SPA) in 5 hectare each
- c) Plantation of Guggal in 1500 hectare
- d) Training to local community and standardize the Gum collection practices

Financial support approved

- Grant-in-aid of Rs. 977.21 Lakh approved for the project by NMPB

Project execution

The project has been executed in 11 Forest Divisions under 3 Forest Circles covering Kuchh, Jamnagar, Banaskantha, Sabarkantha, Junagarh, Rajkot, Porbandar, Bhavnagar and Surendranagar districts of Gujarat State

Activities undertaken for execution of project :

- Base line Survey, Inventory & Mapping works
- Establishment/creation of MPCAs for Guggal
- Fencing of sites, raise Seed Production Areas (SPA) for getting seeds
- Raising of nurseries
- Plantation and cultural operations
- Awareness/Training Programmes for Forest staff, farmers / local community about importance of 'Guggal' species its conservation & Development

Project outcomes

Establishment of MPCAs for *Commiphora wightii* or 'Guggal'

- ✓ 6 Medicinal Plants Conservation Areas (MPCAs) namely Mangvana, Gugliayna, Tharvada, Ler, Mathal & Kurboi Nabahoi in Kachchh Circle of Gujarat has been established covering an area of about 1200 hectares



Plantation/Resource Augmentation

- ✓ 2 Nurseries raised
- ✓ Guggal plantation done in 1465 ha. Area out of the target of 1500 ha (i.e. about 98%)
- ✓ First time in country success of up to 90% germination through seeds for raising quality seedlings achieved
- ✓ In all plantation sites seed raised seedlings have been used for plantations
- ✓ Overall survival rate of planted species has been assessed 60 % (Good work has been executed especially in Kuchchh Circle)

Training & capacity Building

- ✓ 8 trainings have been conducted for Forest staff and farmers/local community for mass scale cultivation of Guggal in Gujarat State



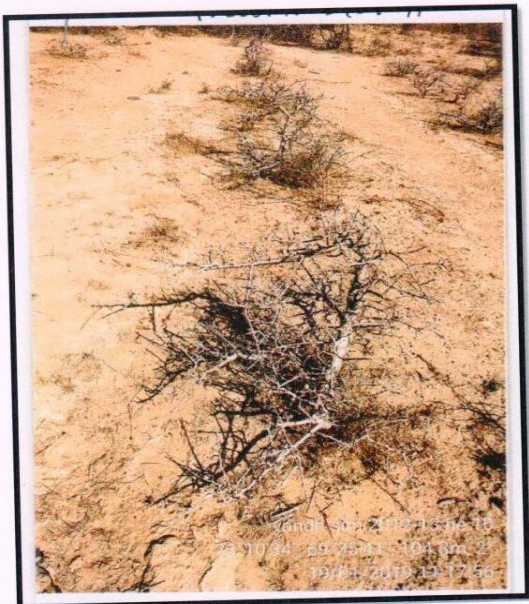
Public Awareness Campaign at Kachchh Circle Gujarat



Training-cum-Workshop at Bhuj, Gujarat

Long term Benefits

- ✓ Wild population of the *Commiphora wightii* or 'Guggal' augmented in about 1400 hectares in Gujarat states would be source for:
 - Future use for raw drug (Guggal Gum)
 - Gene Bank /germplasm bank
 - Research & Development activities



Place: Vandh sim Ha. 10
GPS: N 23 10'34" E 69 35'41" Plantation Year: 2012-13



Place: Gugaliyana Ha. 35 GPS: N 23 33 03.2 E 068 43 07.2 Plantation Year: 2012-13