

“Assessment of population status and removal of bio-resources in Forests with special emphasis on medicinal plants in Karnataka”

Karnataka Biodiversity Board has undertaken a very ambitious project, entitled “**Assessment of population status and removal of Bio-Resources in forests with special emphasis on medicinal plants in Karnataka**”. It is a unique project which is first of its kind in the country, which involves identification and assessment of population and to assess the availability of bio-resources found in the forests of the Karnataka state.

Project No. : Suv.&Invt./KR-01/2015

Project Title: “**Assessment of population status and removal of bio-resources in Forests with special emphasis on medicinal plants in Karnataka**”

Date of Commencement of the Project: The project commenced on 20th may 2015.

Month & year of completion: March 2020

State: Karnataka

Funds sanctioned: Rs. 294,40 lakh

Total area of forest: 4,55,000 Ha approx.

Transect line drawn for assessment: 12,820 Km approx.

Principal Investigator & Organization :

Dr.M Chandrashekar, Principal Investigator & Deputy Director (Ayush)
Karnataka Biodiversity Board, Bangalore
Karnataka (during the year Jan 2015 to July 2016)

Dr.B.V Purushotham, Principal Investigator & Deputy Director (Ayush)
Karnataka Biodiversity Board, Bangalore
Karnataka (during the year Jan 2017 to till date)

Technical Executive:

Shruthi.S

Technical Executive
Karnataka Biodiversity Board, Bangalore
Karnataka (during the year March 2015 to till date)

Area of activity: Inventorisation

Objectives:

- Assessing population status i.e. distribution and density of highly traded medicinal plants in Karnataka.
- Determine the quantification of removal of medicinal plants.
- Develop guidelines for regulating the access and extractions of important bio-resources in the state.
- Capacity building- field-level staff of Karnataka Forest Department will be trained in identification and survey of traded bio-resources

Project Methodology: The assessment of the Medicinal Plant can be phased into five major stages

1. Training to forest Department staff for laying transect line and assessment of bioresources
 2. Laying of transect line for assessment
 3. Survey in the field by field botanists
 4. Field Data entry (Formats)
 5. Data analysis and preparation of report for each forest division and submission to NMPB, Delhi.
- Total forest areas in the State (excluding wild life area) = 4335600Ha
 - Total number of beats in the State = 2300.
 - Total number of Forest Divisions = 39.
 - Preparation of transect line in beat wise, as a unit and 0.5% of the total forest area.
 - A transect line of 10mt width will be drawn across the beat area which covers all vegetations.
 - Girth class wise tree species will be assessed and documented.
 - Subplot of 5mtx5mt for Herbs, Shrubs and Climbers will be demarcated along the transect line on the either side of an interval of every 200 mt in the mid lines will be assessed and documented.
 - GPS recording made at the starting, midpoint and at the end point of the transect line and also midpoint of the subplot (5mtx5mt) will be documented.

Project Status:

Training conducted for forest staff: 39 Territorial forest divisions and one Bannerghatta Wild life Division

Field survey recorded: 39 Territorial forest divisions and one Bannerghatta Wild life Division

Data uploaded to software: All 40 Divisions

Report submitted to NMPB: All 40 Divisions

Outcome of the project

- Establishment of Data base for medicinal plants of Karnataka having species with precise location in the forest.
- Estimated population of tree species and its habitat & projected number
 - a) Estimation of shrub and herb species and its Habitat & projected number.
 - b) Estimation of regeneration of tree species.
 - c) Estimation Dominant species.
 - d) Estimation Rarest plant species found in the forest area.
- Assessment of threatened medicinal plant species.
- Therapeutic signification of medicinal plants locally used & classical text ingredients.
- Protection and conservation of Medicinal plants.



Training programme at Haveri division



Field demonstration during training in Gokak division



Training programme conducted at Bangalore Rural Division



Field survey at Devlapura beat, Mandya division



Conducting PRA at villages



Field survey at Honnekudige beat, Koppa division



Field survey at Gowtmapura beat, Sagara division



Field survey at Bisle Beat, Hassan division



Name of the plant: *Coscinium fenestratum*

Family: **MENISPERMACEAE**

Vernacular name: **Tree turmeric, Daru Haridra**

Name of Division: **SIRSI**

Name of the Range: **KYADGI**

Name of the Beat: **KYADGI**

Habit: **Woody climber**

Status: **Critically endangered**



Name of Plant: *Tinospora cordifolia* (Willd.) Miers

Family: **MENISPERMACEAE**

Vernacular name: **Amruthaballi**

Name of the Range: **MAKUT**

Name of the Beat: **ARABITHATTU**

Habit: **Climbing Shrub**

Status: **Under Threat**



Name of the plant:

Pterocarpus santalinus L.f.

Family: **LEGUMINOSAE**

Vernacular name:

Rakthachandana

Name of Division: **MANDYA**

Name of the Range:

SRIRANGAPATNA

Name of the Beat: **K**

SHETTIHALLY

Habit: **Tree**

Status: **Endangered**



Name of Plant:

Diospyros melanoxylon Roxb

Family: **EBENACEAE**

Vernacular name: **Abanasi**

Name of Division: **MYSORE**

Name of the Range: **H D KOTE**

Name of the Beat: **HOSAHALLI(B)**

Habit: **Tree**



Name of the plant:

Terminalia chebula Retz.

Family: **COMBRETACEAE**

Vernacular name: **Halle**

Name of Division: **VIRAJPET**

Name of the Range: **THITHIMATHI**

Name of the Beat **THITHIMATHI**

Habit: **Tree**



Name of Plant:

Mitragyna parvifolia (Roxb.) Korth

Family: **RUBIACEAE**

Vernacular name: **Nira kadamba**

Name of Division: **MANDYA**

Name of the Range:

NAGAMANGALA

Name of the Beat: **HONAKERE**

Habit: **Tree**



Name of the plant:

Semecarpus anacardium L.f.

Family: ANACARDIACEAE

Vernacular name: **Kaadu geru**

Name of Division: **MANDYA**

Name of the Range:

NAGAMANGALA

Name of the Beat **DEVALAPURA**

Habit: **Tree**



Name of Plant:

Capparis grandis L.f.

Family: CAPPARACEAE

Vernacular name: **Torate mara**

Name of Division: **MYSORE**

Name of the Range: **H D KOTE**

Name of the Beat: **HAMPAPURA**

Habit: **Small Tree**