

## **Project Progress Report**

### **Assessing distribution, and engaging community for conservation of *Dalbergia latifolia* Roxb. across one of the last remnants of Charkose forest, eastern Nepal**

Project id: Nabin Basnet (44610-1)

Date: June 2025

#### **Major Activities Accomplished:**

##### **1. Permission Acquisition:**

- i) Local bodies (Itahari & Dharan Sub-Metropolitan Cities): November 2024
- ii) Social Welfare Council (SWC): January 2025
- iii) Department of Forest and Soil Conservation (DFoSC), Government of Nepal: February 2025
- iv) District Forest Office (DFO), Sunsari: February 2025

##### **2. Preparation Activities:**

- i) Datasheet, Questionnaire and study area Design: February 2025
- ii) Preliminary Field Visit & Team Preparation: February 2025
  - Conducted over 7 field days
  - Delineated study boundaries in Charkose Forest adjoining Itahari and Dharan
  - Conducted with involvement of Community Forest User Groups (CFUGs)

##### **3. Ecological Data Collection:**

- i) Field Survey Period: February-March 2025 (35 field days)
- ii) Study Design:
  - Entire study area divided into 500m × 500m plots using ArcGIS
  - A total of 120 complete plots established
  - From these, 360 quadrats (20m × 20m) were laid out (one at the center, two at opposite ends of each plot)
- iii) Ecological Parameters Recorded:
  - Regeneration status of *Dalbergia latifolia* Roxb.
  - Height and DBH (Diameter at Breast Height) of saplings and trees

- Dominant tree species (top 3 per quadrat)
- Litter and humus thickness
- Canopy cover, ground vegetation cover
- Presence and type of disturbances

iv) Total Area Surveyed: ~3000 hectares

- This is approximately 5 times larger than initially proposed study area during the submission of the proposal.

## Major Findings

### Based on field observations and discussions with CFUGs:

1. Patchy Distribution of *Dalbergia latifolia* Roxb.:

- The distribution of *Dalbergia latifolia* Roxb. varied significantly across plots.

2. High Seedling Density in Specific Plots:

- Attributed to local conservation efforts by CFUGs and DFO, Sunsari

3. Major Disturbance Factors:

- Livestock grazing significantly hindered regeneration
- Invasive Alien Plant Species (IAPS) were observed impacting natural regeneration processes

## Planned Future Activities

| Activity                                                                  | Timeline    |
|---------------------------------------------------------------------------|-------------|
| IEC Material Preparation                                                  | June 2025   |
| Consultative Workshops, Awareness Campaigns & Hoarding Board Installation | July 2025   |
| Soil Physico-Chemical Analysis                                            | July 2025   |
| Data Analysis                                                             | August 2025 |

## Activity

Manuscript Writing & Submission

Final Report Preparation, Submission & Dissemination

## Timeline

August–September  
2025

October 2025

## Photo plates:

|                                                                                                                                                                                                                                                                  |                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>(A) (B)</p> <p>DBH measurement of <i>Dalbergia latifolia</i> Roxb.</p>                                                                                                      |  <p>(A) (B)</p> <p>Writing Field notes (Figure A), measuring sapling height (Figure B)</p> |
|  <p>(A) (B)</p> <p>Logging remnants of <i>Dalbergia latifolia</i> Roxb. (Figure A), seedling of <i>Dalbergia latifolia</i> Roxb. trampled by livestock grazing (Figure B)</p> |  <p>Unmonitored livestock grazing across the forest area</p>                             |



Sapling of *Dalbergia latifolia* Roxb.



A well-matured *Dalbergia latifolia* Roxb. tree stands gracefully beside the major highway connecting the provincial headquarters to the hilly districts-a remarkable example of development coexisting in harmony with nature.