

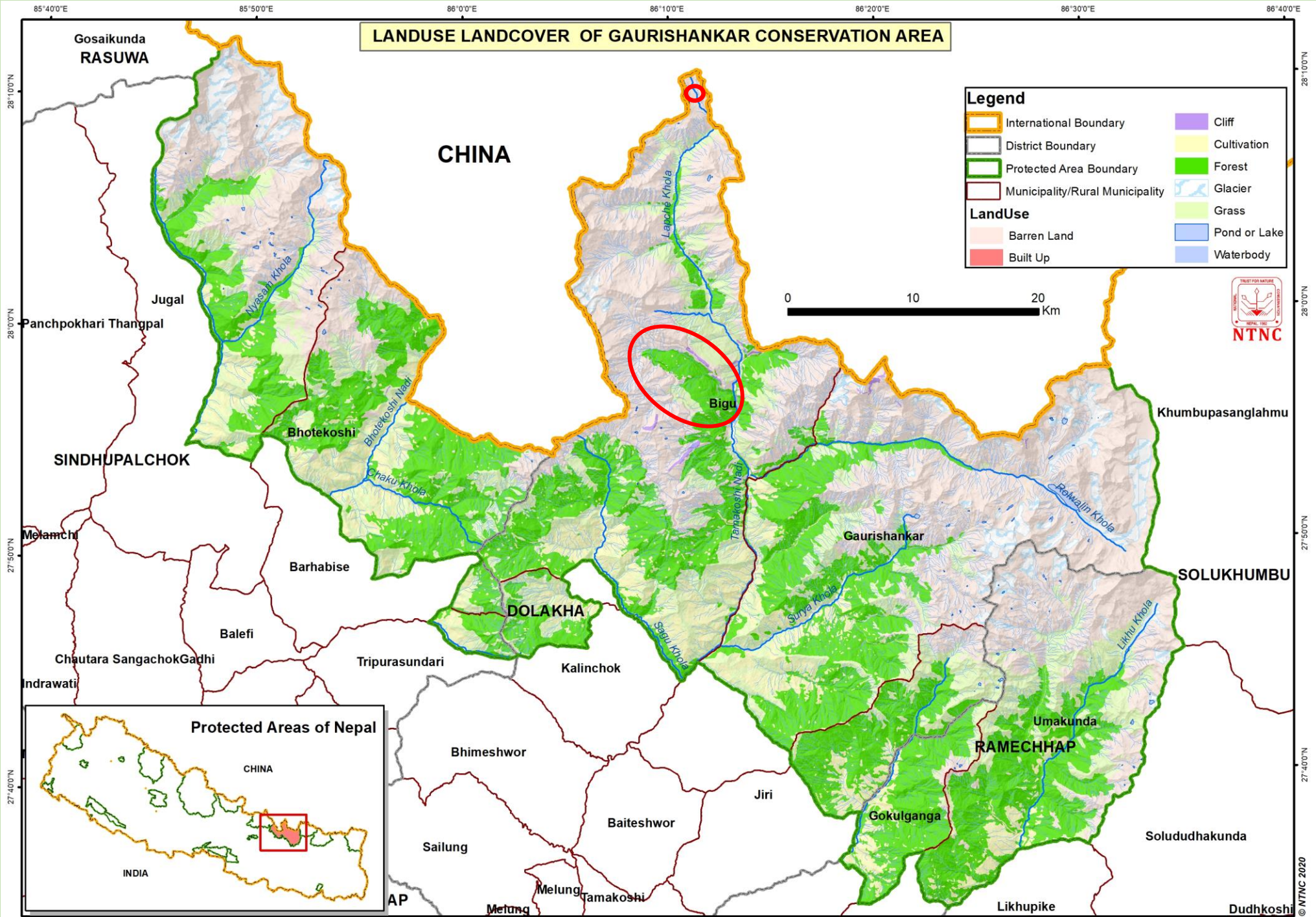


Current BOKU Carbon Offset activities in Gaurishanker Conservation Area

Commission for Interdisciplinary Ecological Studies of the Austrian Academy of Sciences
and Institute of Forest Ecology, BOKU

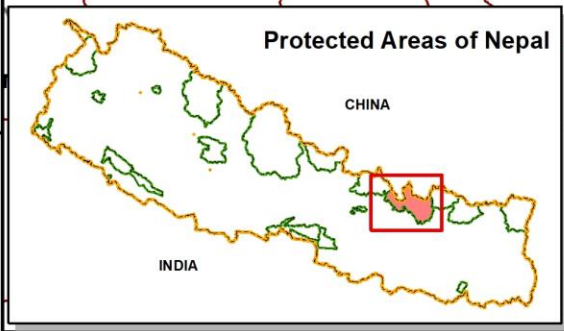
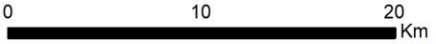
Mohan P Devkota
Tribhuvan University
Nepal
7 May, 2021

LANDUSE LANDCOVER OF GAURISHANKAR CONSERVATION AREA



Legend

	International Boundary		Cliff
	District Boundary		Cultivation
	Protected Area Boundary		Forest
	Municipality/Rural Municipality		Glacier
	Barren Land		Grass
	Built Up		Pond or Lake
			Waterbody



Holy Gaurishankar Peak



Tamakoshi Valley

Legend



G318

Loranthus lambertianus

सोरी शंकर

Bulungkhani

Nursery site

LADUK

Google Earth

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Image © 2021 CNES / Airbus
©2021 Google
Image Landsat / Copernicus

10 km





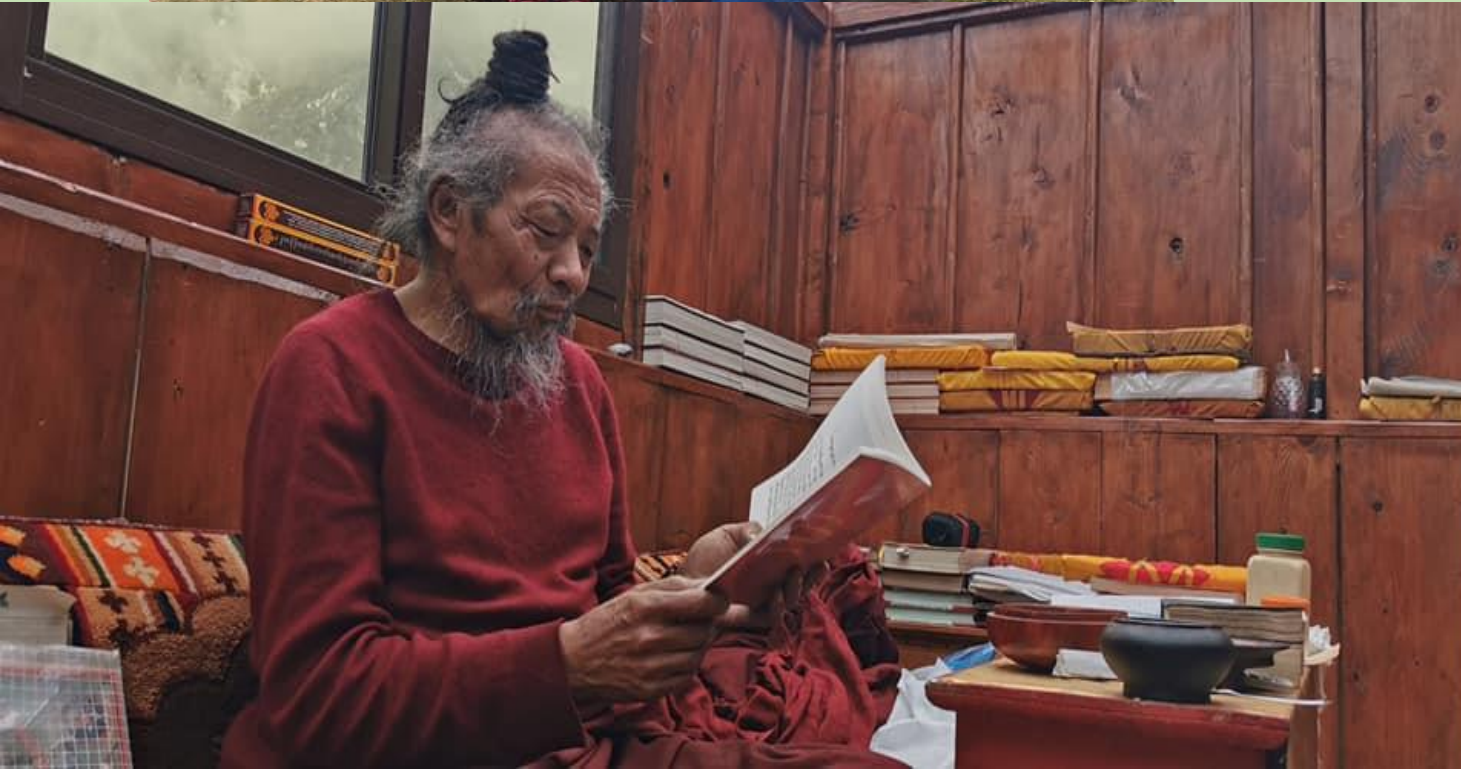


Lapchi Monastery

Lapchi Village







Carbon offsetting as an opportunity for sustainable rural development in Nepal

a participatory community based approach



a BOKU CO₂ compensation system project

The main objective of BOKU research in Gaurishankar Conservation Area –

“Contribute to sustainable development of rural communities by participative implementation of carbon offset activities” by growing and managing forests in Bigu Gaupalika.

BOKU Carbon Offset Project activities –

- **Collaboration with NTNC & the local government (Bigu Rural Municipality),**
- **Baseline studies in the project area,**
- **Establishment of forest nursery,**
- **Producing seedlings of fodder and other tree species for plantation,**
- **Conducted training to three forest users groups,**
- **Plantation activities in 2020**
- **COVID-19 and the challenges**

Six Master theses have been completed in the past as a base line study

- 1. Owen Bradley (UNI BOKU)**
- 2. Davendra Pandey (TU)**
- 3. Urmila Tamang (TU)**
- 4. Niko Eidenmuller (UNI BOKU)**
- 5. Jokin Idoate (UNI BOKU)**
- 6. Lauren Dietemann (UNI BOKU)**

Mr. Anil Bhandari has registered for PhD study in GCA, in Kathmandu University.

He will work on Ecosystem Services of community managed forests.

We also,

Reformed an eleven member new sub-committee for nursery management under the leadership of Mr. Raj Kumar Malla & a monitoring committee

Before



After



कालिञ्चोक उत्कृष्ट नर्सरी
पाटीगैरा बुलुङ्ग, विगु गाउँपालिका-०३, दोलखा
स्थापना : २०७४

Kalinchock Utkrista Nursery
Patigaira-Bulung, Bigu Gaupalika-03, Dolakha
Established: 2018

व्यवस्थापन
कालिञ्चोक उत्कृष्ट नर्सरी व्यवस्थापन समिति
विगु गाउँपालिका-०३, दोलखा

आर्थिक तथा प्राविधिक सहयोग
Carbon Offsetting as an Opportunity for Sustainable Rural Development in Nepal - A Participatory,
Community Based Approach in the Gaurishankar Conservation Area (GCA)



Weather station



Public water tap





Nursery activities



Training programs & awareness raising







Magnolia seedlings



***Pinus wallichiana* seedlings**





Production of fodder seedlings

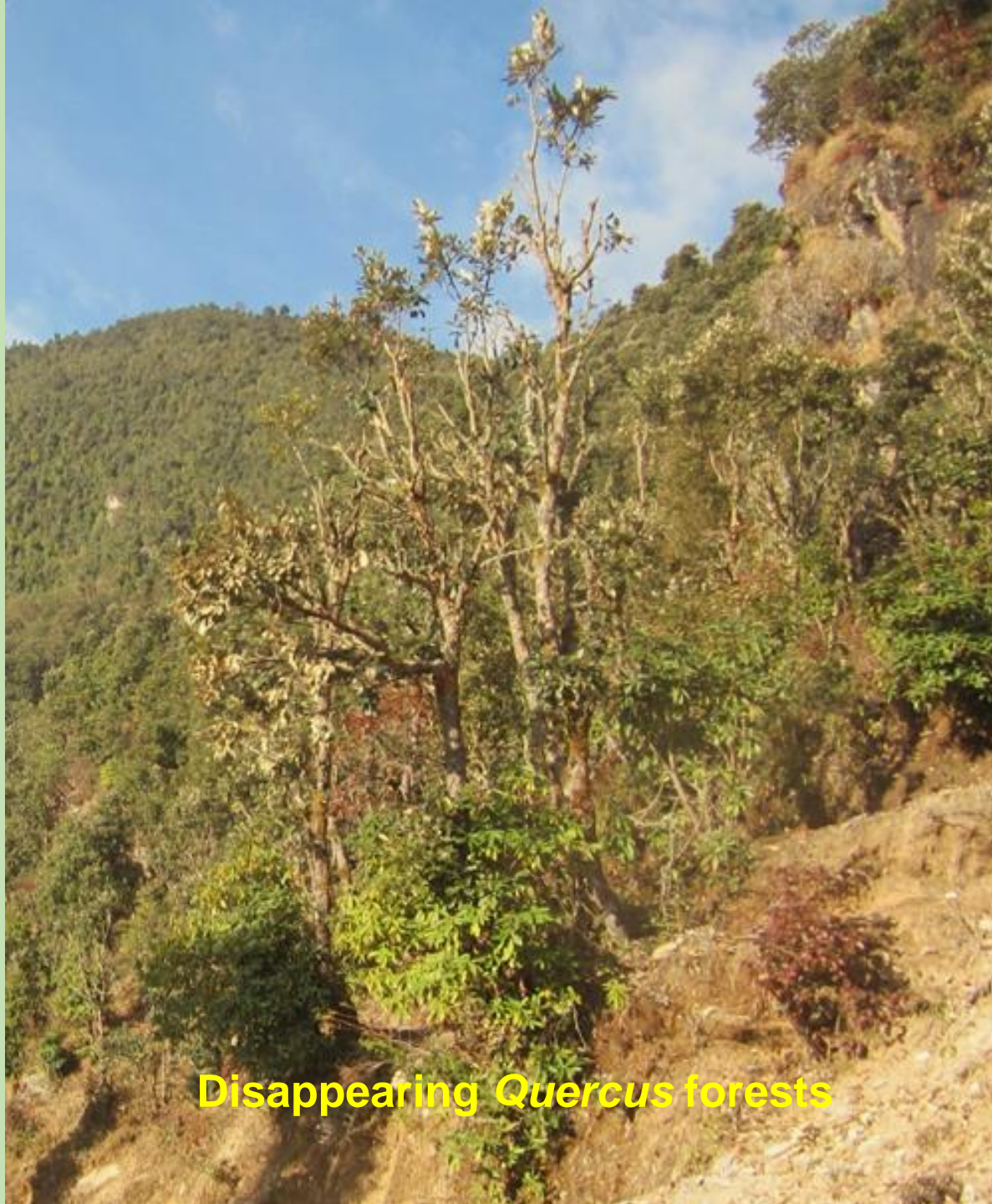


Challenges with *Quercus* forests

very important tree species for mountain communities

Important source for survival and livelihood opportunities

Timber, fodder, agricultural tools, fuelwood, carbon sequestration



Disappearing *Quercus* forests



Quercus lanata fodder



Disappearing stands of *Q. semecarpifolia*



Challenges with *Q. semecarpifolia* seeds



Result of late sowing



Before sowing



Bulungkhani Village



1/7/2020 10:14:12 am

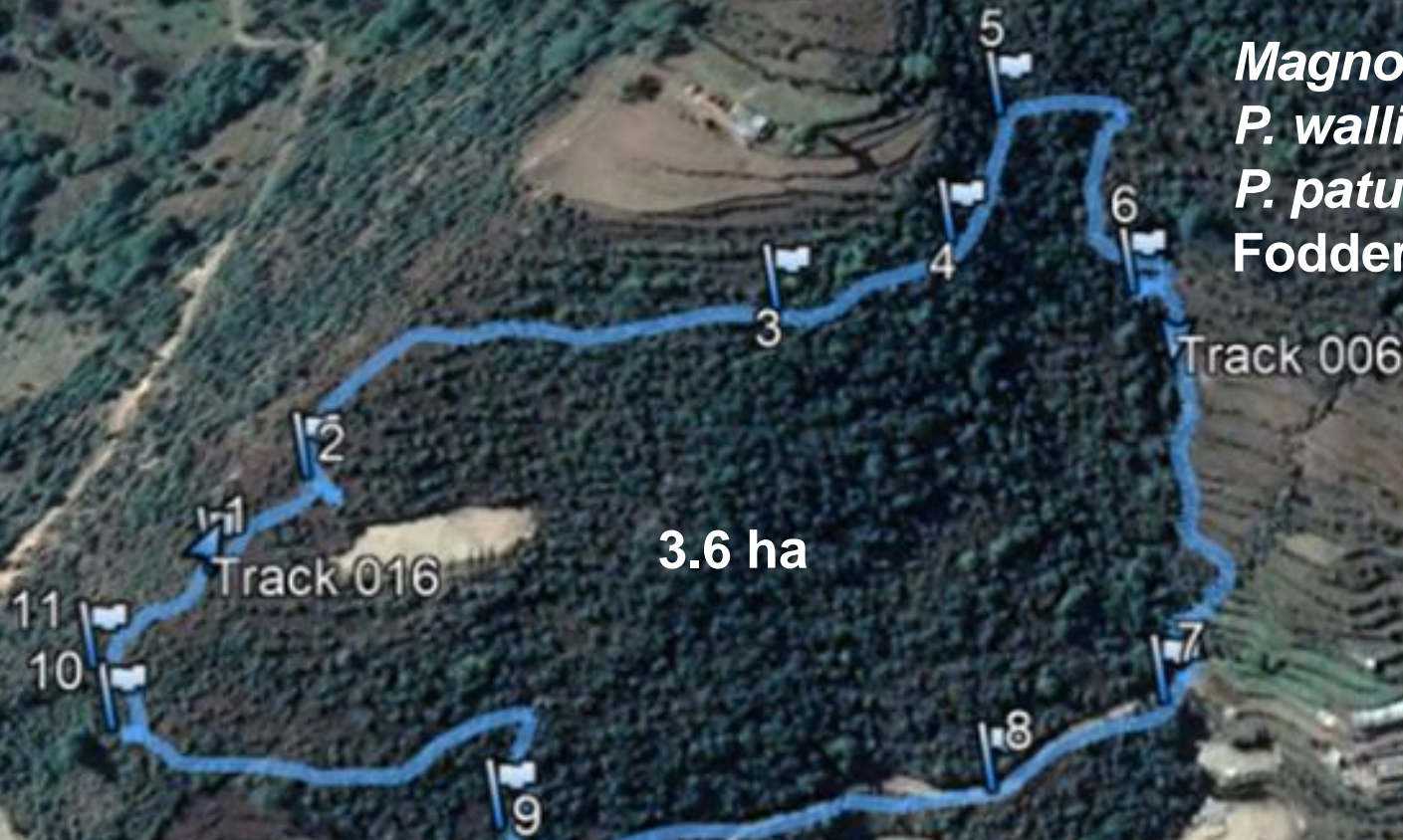
Plantation activity

Magnolia seedlings – 330

P. wallichiana – 70

P. patula – 1152

Fodder trees - 202



3.6 ha

Track 016

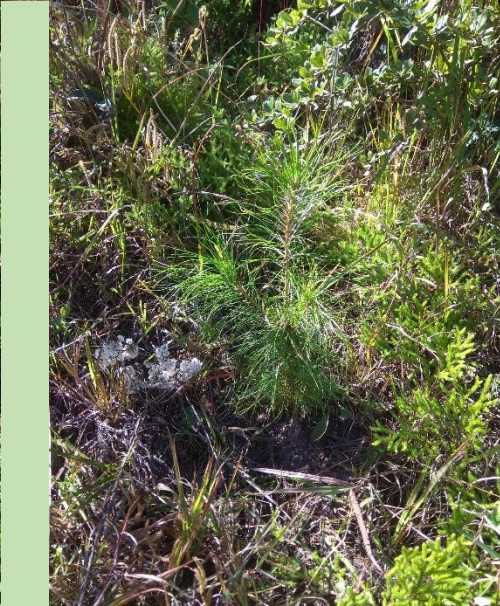
Track 006

Google Earth



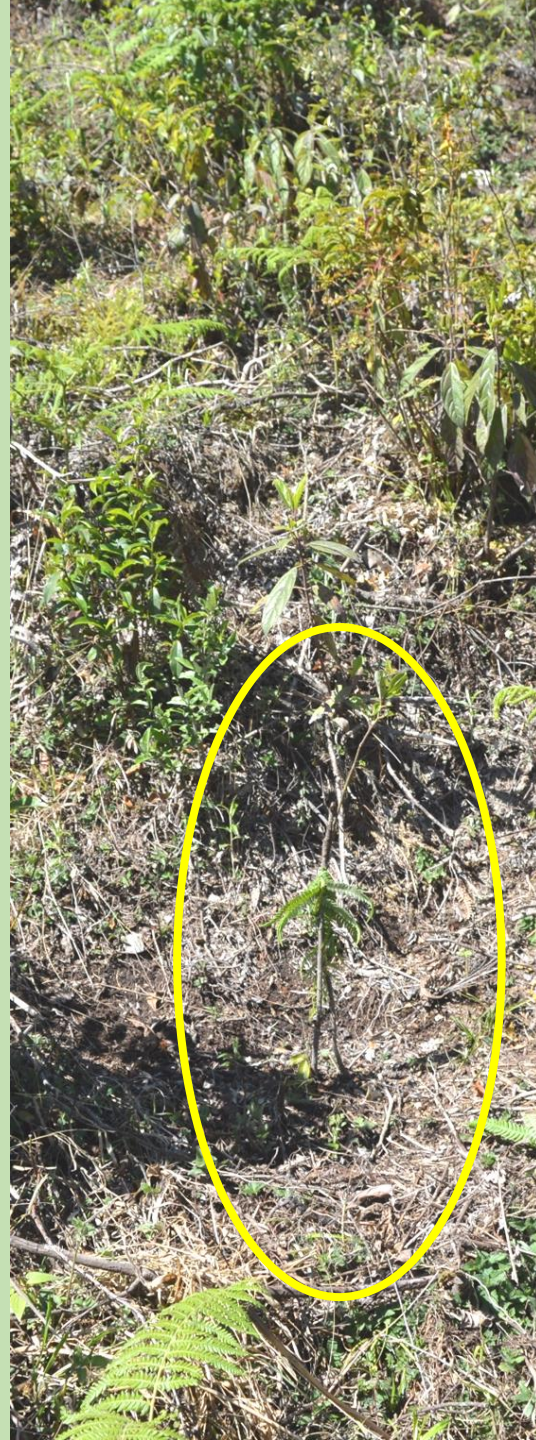
Plantation - August 2020





Frost as a biggest challenge to *Magnolia* seedlings





Lessons learned for *Magnolia* seedlings:

- Early monsoon (June) plantation is recommended, we did in early September,
- Selection of alternate site for *Magnolia* plantation to avoid loss due to frost & snow,
- *Magnolia* seedlings are frost sensitive, need protection,
- Plantation under the canopy or bush cover showed better results,
- Site clearance is not needed.

Present number of seedlings at the nursery –

Fodder

Morus alba – 756

Ficus auriculata – 1300

Melia azedarach – 1404

Plantation trees

P. wallichiana – 3783

Magnolia – 1050 (approximately 1000 in seed bed)

P. patula – 1218

Calistemon citrinus – 4000 (exotic tree for ornamental purpose)

Plants of economic importance

Choerospondias axillaris – 195 (Nepalese Hog Plum)

Xanthoxylum armatum – 594 (Himalayan pepper)

Juglans regia – 19 (trial growth)

COVID-19 and challenges –

Will affect the project performance

- **BOKU partners are unable to travel to Nepal,**
- **Difficulties to continue the activities by Nepalese partners,**
- **Rural population is returning to villages in GCA,**
- **Increasing future threats,**
- **Travel limitations to Nepalese partners,**
- **2021 plantation activities?**

Thanks for your support and trust



We hope the blessings will help us to achieve our goals



Thankyou