

# Report on Exploration and awareness of Endangered Himalayan Trillium in Neelum, Leepa, Toli peer and Lasdana AJK (Azad Jammu & Kashmir) Pakistan

## Introduction

The areas of AJK that were previously reported in data or literature were explored focusing on seven specific locations that showed previous evidence of the endangered Himalayan Trillium. All of component of research activities are concluded in this region like field, awareness and stake holder meeting (though meeting has been arrange individually due to tourist load in that area during growing season, forest departments were extremely busy, combine meeting may be planned later as per their availability)

## Methodology for Field

### 1 Site Selection

Seven locations were finalized: Janawai, Sharda, Lawat Bala, Arang Kel, Mandakoli-Leepa , Purhdhoke-Leepa , Lasdana-Toli peer (Fig 1).

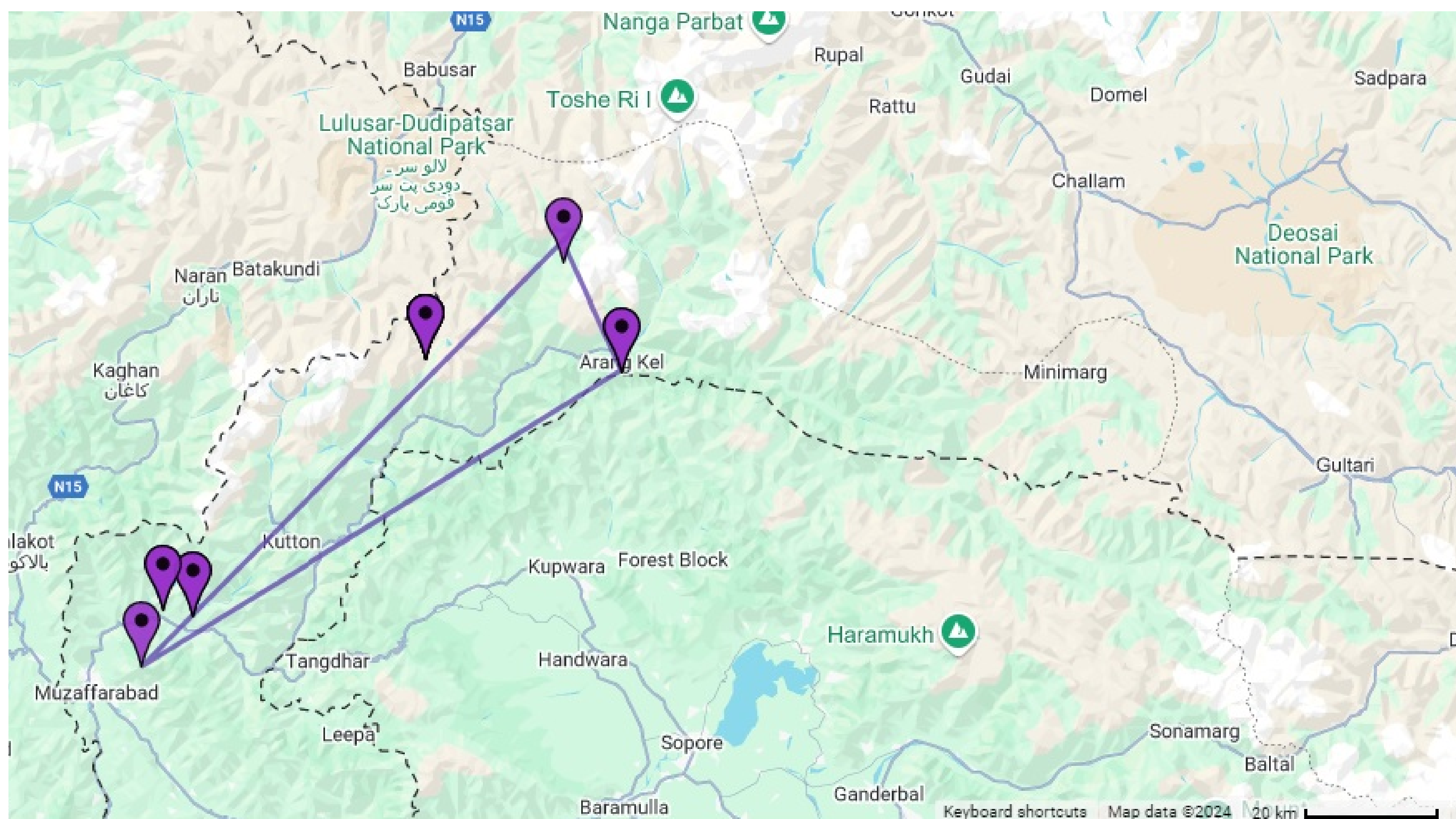


Fig 1: Map showing locations at Neelum, Leepa (AJK).

### 2 Standard method adopted to get the data

# Findings and Results

## 1 Population Assessment

The data analysis was presented through a graphical representation of population trends across different locations, as seen in the attached graph (Fig 2).

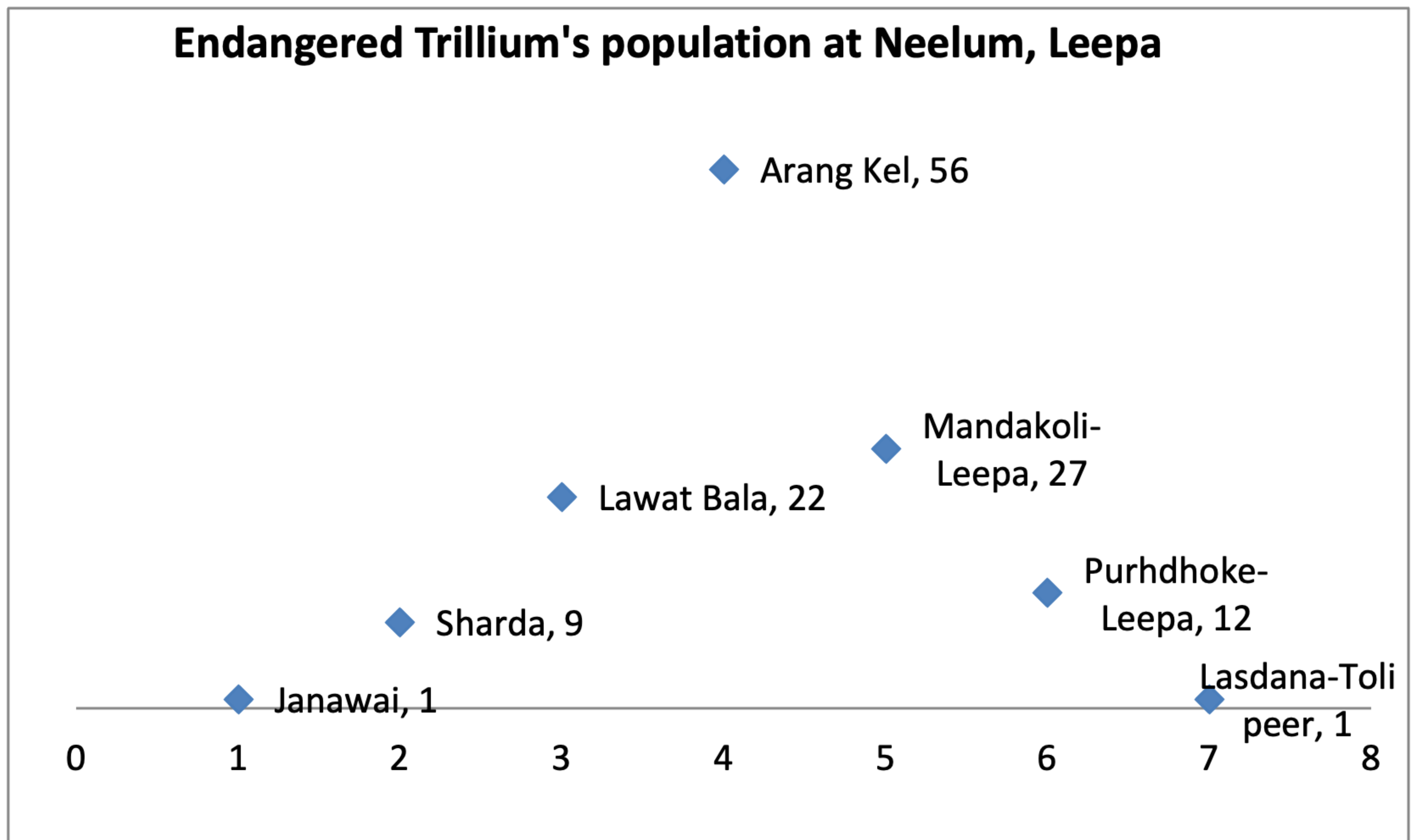


Fig. 2: Trends in population at nine locations of ANP.

### Key Findings

**Arang Kel** had the highest population count, with around 56 individuals. **Mandakoli-Leepa** and **Lawat Bala** have some population of **27, 22** individual. Rest all have very poor populations.

## 2 Geocat Analysis

A detailed analysis covering coordinates from most of the six regions of the country will be shared after filling the gaps in the next growing season (2025).

## 3 Specimen Collection

Representative samples were collected, dried, pressed and fumigated and **still in process for proper accession numbers** (Fig 3)



Fig. 3 : Representative specimens of endangered herb *Trillium govonianum* from top left location, Arang Kel, Janawai,

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## Associated Data

The specimens are in process of herbarium pressing, drying and cataloguing.



*Fig 4: Herbal specimens from top left to right*

## Community Interactions

Locals were asked a questionnaire about last sight seeing (Fig 5). The data is in process.



*Fig 5 Herb Collectors and Sellers: Information on Endangered Species*

# Challenges and Limitations



## Access Issues

Local seasonal shepherd movement and stormy rain and land sliding (Fig 6).



Fig 6: shepherd movement in Neelum



## Community Awareness

Most of valleys has concept that they own all natural resources and can use it or sale it like in Pulwai, Sharda (Fig 7)



Fig 7 : Session wiith locals

This exploration has provided valuable insights into the current status and distribution of the endangered Himalayan Trillium in Neelum and Leepa valley including Toli peer.

## Awareness sessions with students at Neelum/Leepa AJK

### *Identification and Conservation Session*

During this session, students were **introduced** to endangered plant species, with a focus on their **taxonomical classification and local names**, using **posters** and **images** as educational tools. The session included **interactive discussions** where **students shared** how these plants are used in their households, exploring their medicinal and cultural significance.

The session also **highlighted the conservation status** of these species, with discussions on the threats they face and brainstorming on ways students can contribute to conservation efforts within their communities.

The **session concluded with a quiz** to reinforce the knowledge gained, providing a fun and engaging way for students to review what they learned



*Awareness session with junior students in Janowai - Neelum.*



*Awareness session with senior students in Janowai - Neelum.*



*Awareness session with junior students in Sharda - Neelum.*



*Awareness session with junior students in Leepa.*

# Gallery



Tracking from Janawai crossing river Neelum (local women guide).



Tracking in Arang Kel (photo credit Mr Munir, from left to right Dr Rizwana, rest two forest guides and leading with local person)



Herbs were displayed for sale in Peer Chinasi, Neelum AJK



Endangered herb from Mandakoli-Leepa (location Neelum AJK).

# Gallery



GPS reading at Sharda/Neelum AJK (few enadgered Trillium from this location)



Meeting with chief conservator Neelum (Location Athmuqam-Neelum)



Meeting with forest department Janawai-Neelum



Meetings with forest department of Kel, Kerun and Sharda-Neelum.