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## Changed Management Practices

- Livestock grazing and fire – two integral parts which reshaped the Western Himalayan landscape
- Growing concern on negative effects of over-grazing and fire on biodiversity lead to grazing restrictions and costly fire management practices over the last few decades
- Management policies – lack knowledge on fire-grazing-vegetation dynamics, affect pastoralists and pose threat to existing biodiversity

## What we do?

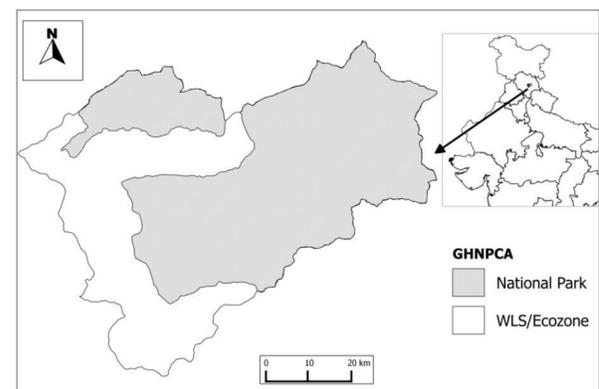
Our aim – *a better understanding of the fire-vegetation-grazing relationship to develop better management practices.*

### Objectives:

- Documenting the traditional grazing and fire management practices and spatial extent of grazing and fire.
- Determining the effects of over grazing and increased fire frequency on ground vegetation composition.
- Determining the acceptable levels of human activities

## Great Himalayan National Park Conservation Area (GHNPCA) – an ideal study site

- Grazing restricted inside the NP
- Local restrictions and pastoral practices- gradients
- Grazing and fire prominent in the eco-zone
- Over-crowding in WLS/Ecozone



## Our approach,

### 1. Village questionnaire survey:

- Local grazing and burning practices.
- Spatial extent & distribution of grazing areas.
- The intensity of grazing and fire frequency.

### 2. Field survey:

- Sampling outside the NP & inside the NP.
- Sampling across the grazing and fire gradients.
- Comparing with the existing data.



## We found

### Distinct grazing practice

- Village grazing grounds “ghasnis” – Jan to April
- High altitude grasslands “taches” – April to October
- Village surroundings – throughout the year

“Grazing restrictions lead to over-crowding of certain *taches* outside the NP”

Data across the grazing gradients yet to be analysed

Higher shrub cover observed inside the NP - comparison with previous data more conclusive



## Future direction

Experimental studies - fire-grazing interactions