

# Prioritising Conservation to Protect 'Wastelands': The curious case of India's Grasslands

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# Parochial Conservation

- Focus on Charismatic Species
- Inviolable Protected Areas
- Ignored Ecosystems





# Grasslands

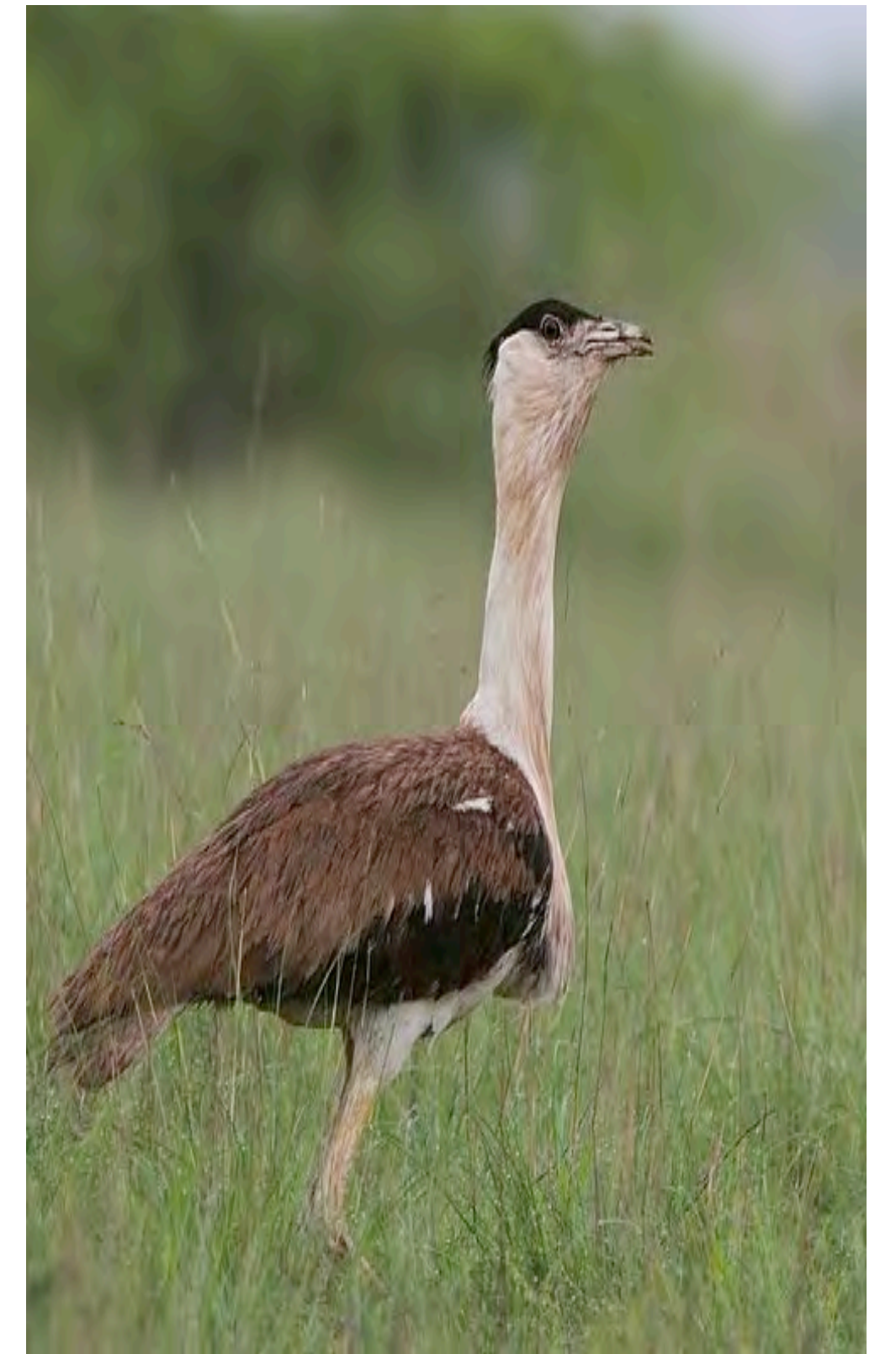
- Covered 25-30% of India
- Hunting Antelope and Racing Cheetahs
- Shaped by Fire and Grazing
- Post Independence: Unproductive Wastelands





# Unique 'Wastelands'

- Support Pastoral Communities
- Endangered and Endemic Wildlife like the Great Indian Bustard
- Under Risk of Rapid Transformation





# Rationale

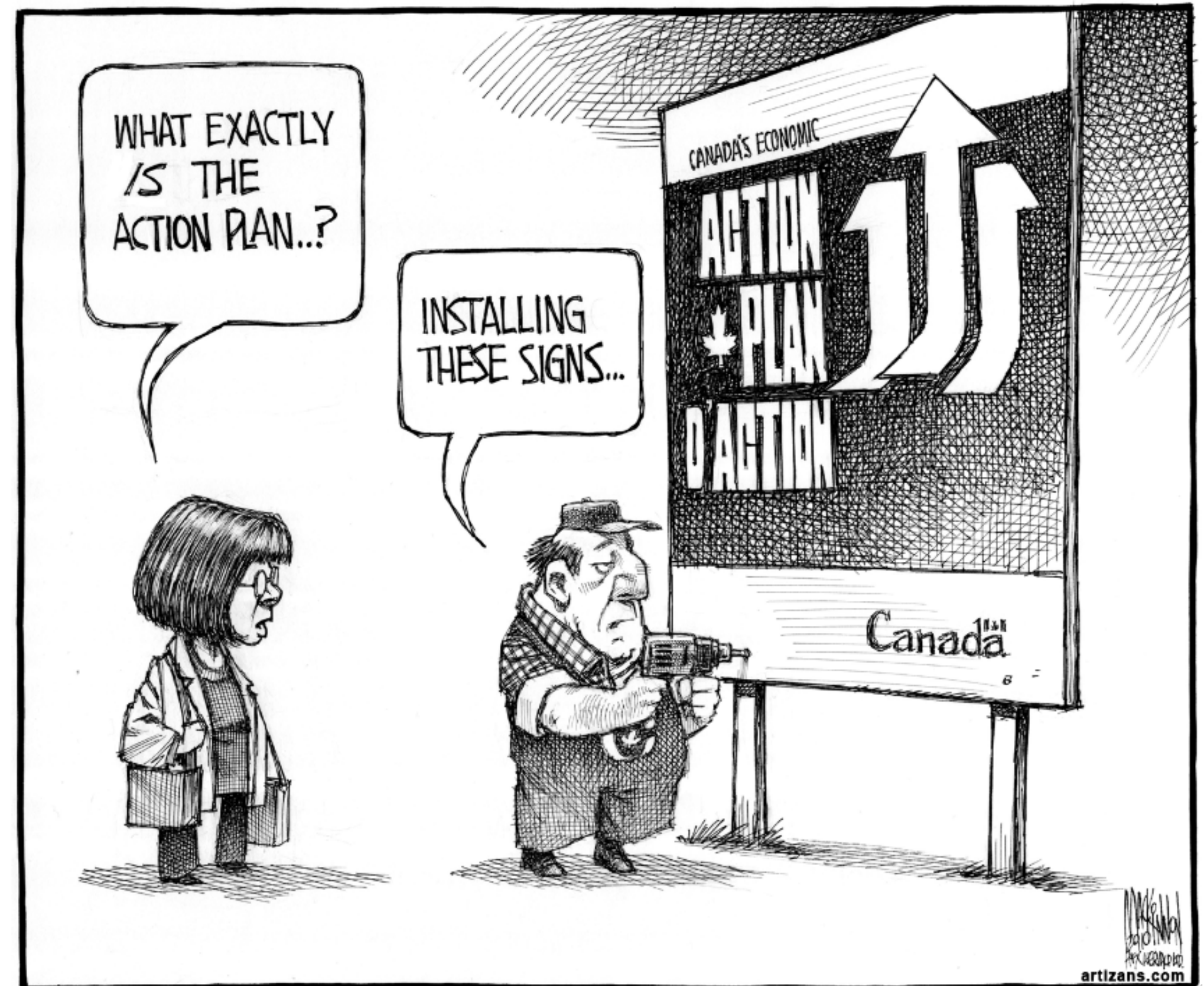
- No comprehensive conservation policy
- Limited Conservation Investment
- Need for a Prioritisation Approach
- Spatial Conservation Prioritisation (SCP)
- Decision Support for Conservation Action





# Science- Policy- Action Gap

- Rarely leads to planned conservation action
- Decisions driven by administrative constraints
- Complex Socio Economic and Socio Political Systems





# Objectives

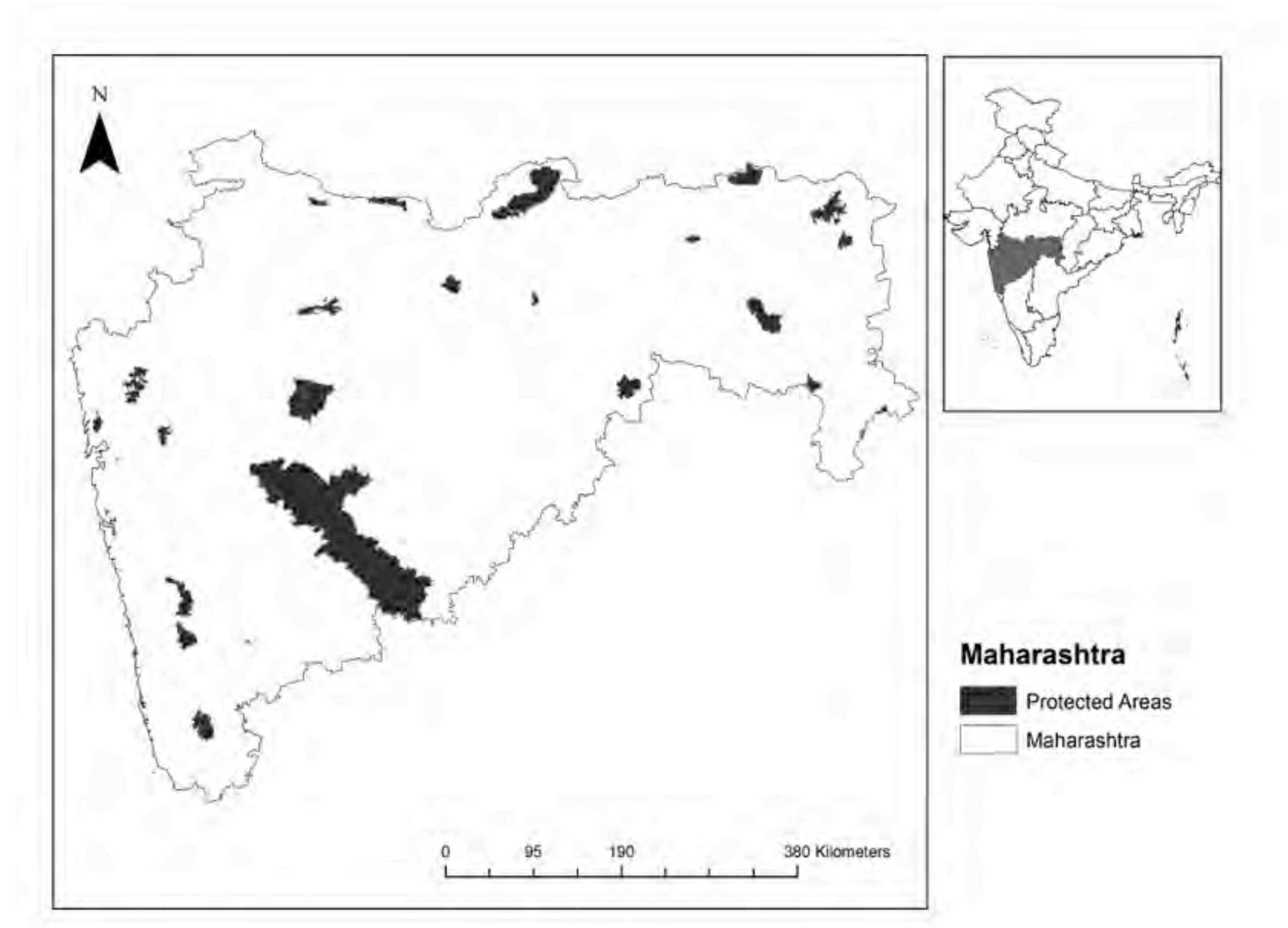
- Develop the first prioritisation assessment for grasslands at the local administrative unit level
- Account for ecological processes along with socio-economic and socio-political processes
- Develop multiple scenarios for flexible decision support





# Planning Region

- Maharashtra- 35 administrative units
- Largest Proportion of Grasslands
- 15% Classified as Wastelands
- Rapid Transformation in the last decade





# Methods

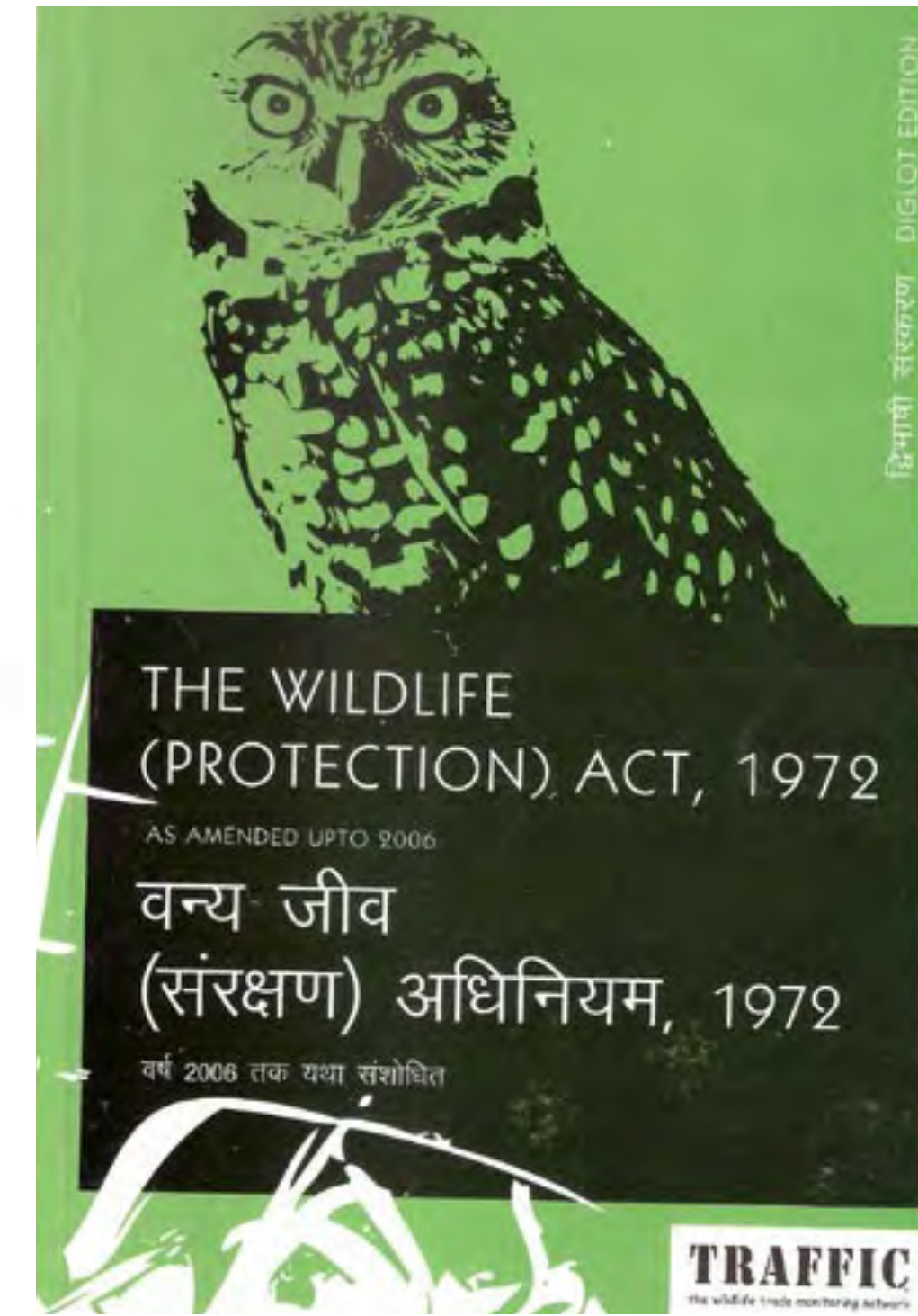
- Species Distribution Modelling
- Pastoral Grazing Layer
- Spatial Threat Layers
- Unique Threat Indexes for each administrative unit
- Government Schemes, Agricultural Intensification, Land Conversion, Political Instability and Conflict
- Example- Integrated Wasteland Development Programme, Inter Pastoral Conflict





# Prioritisation Process

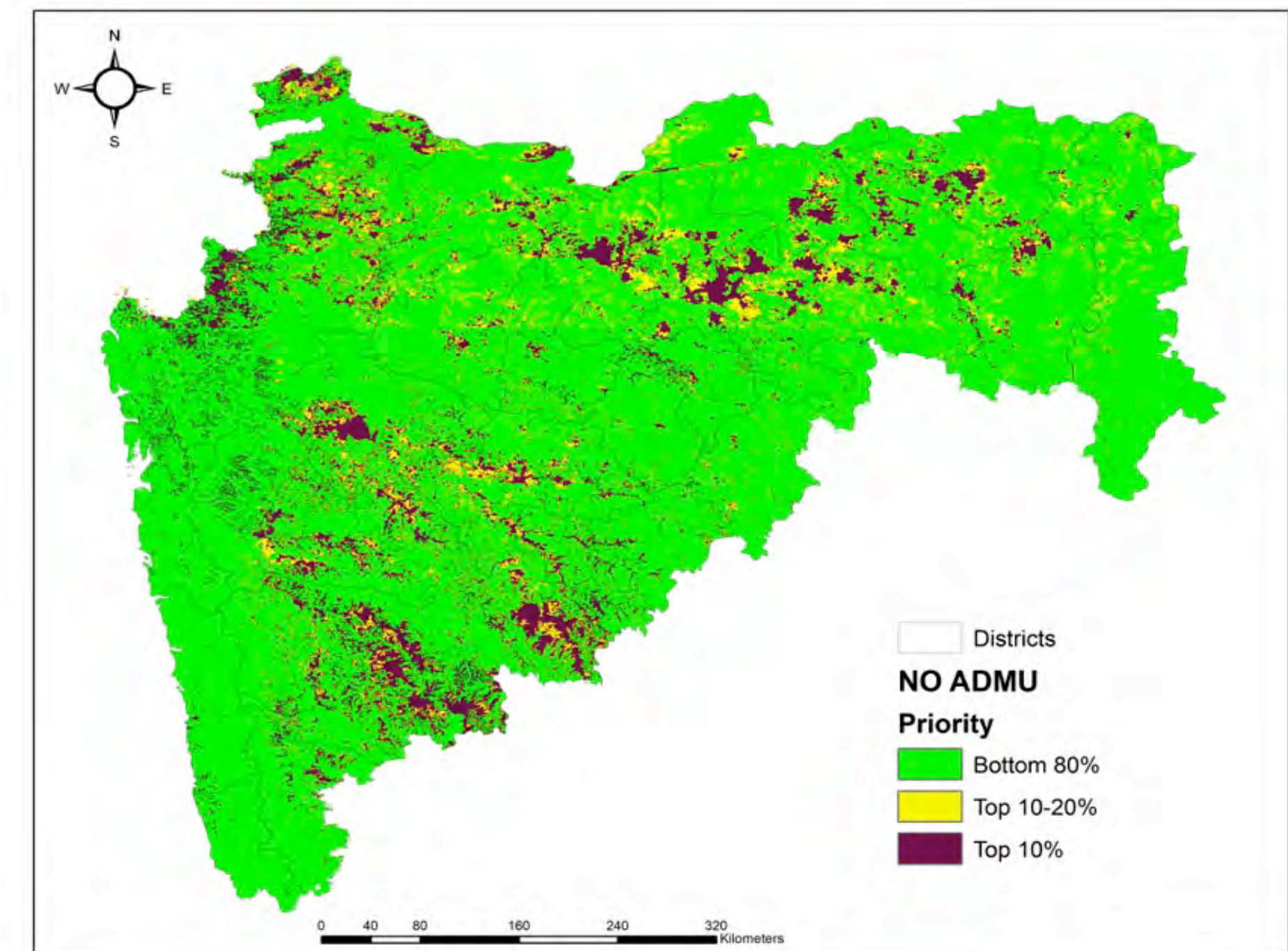
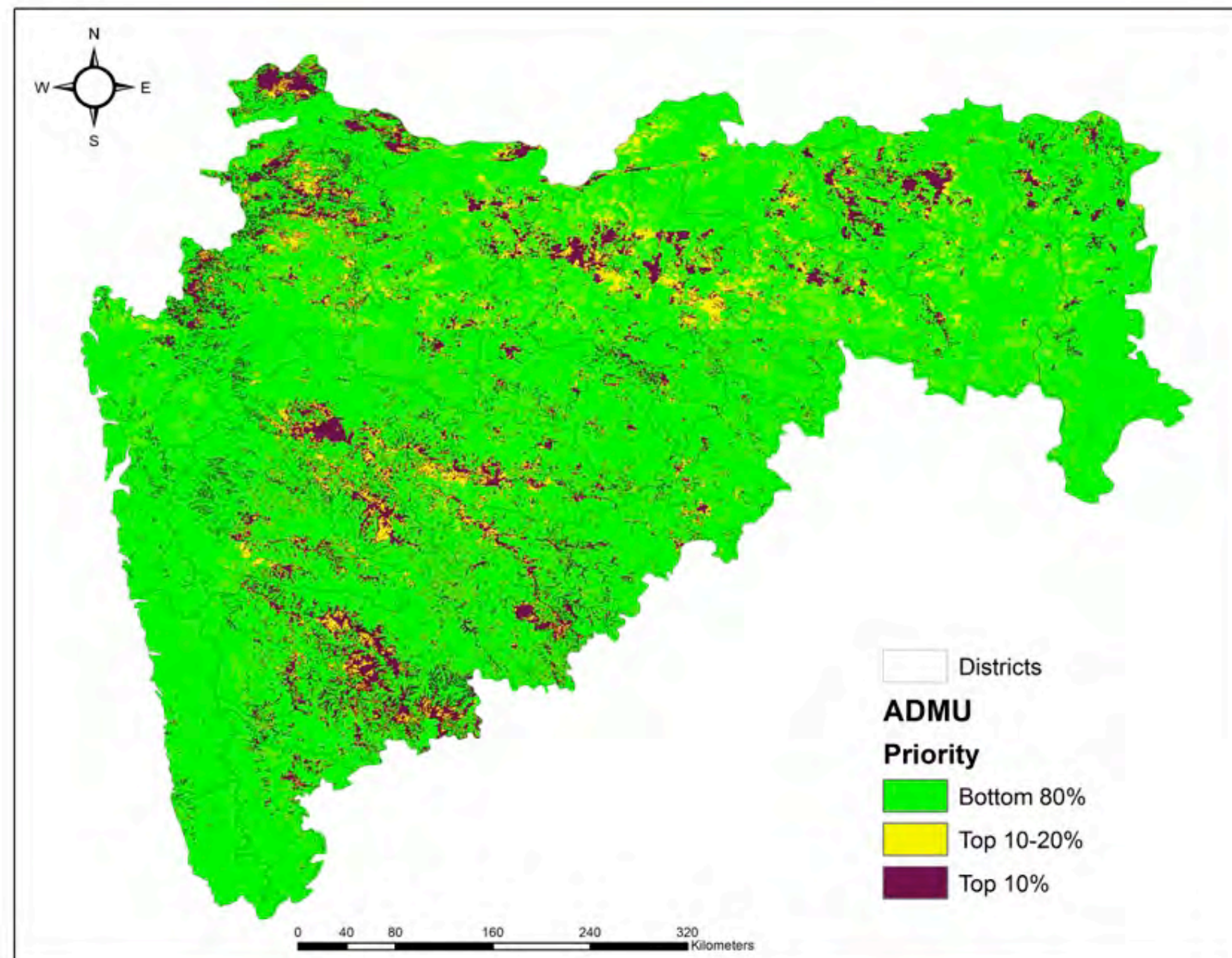
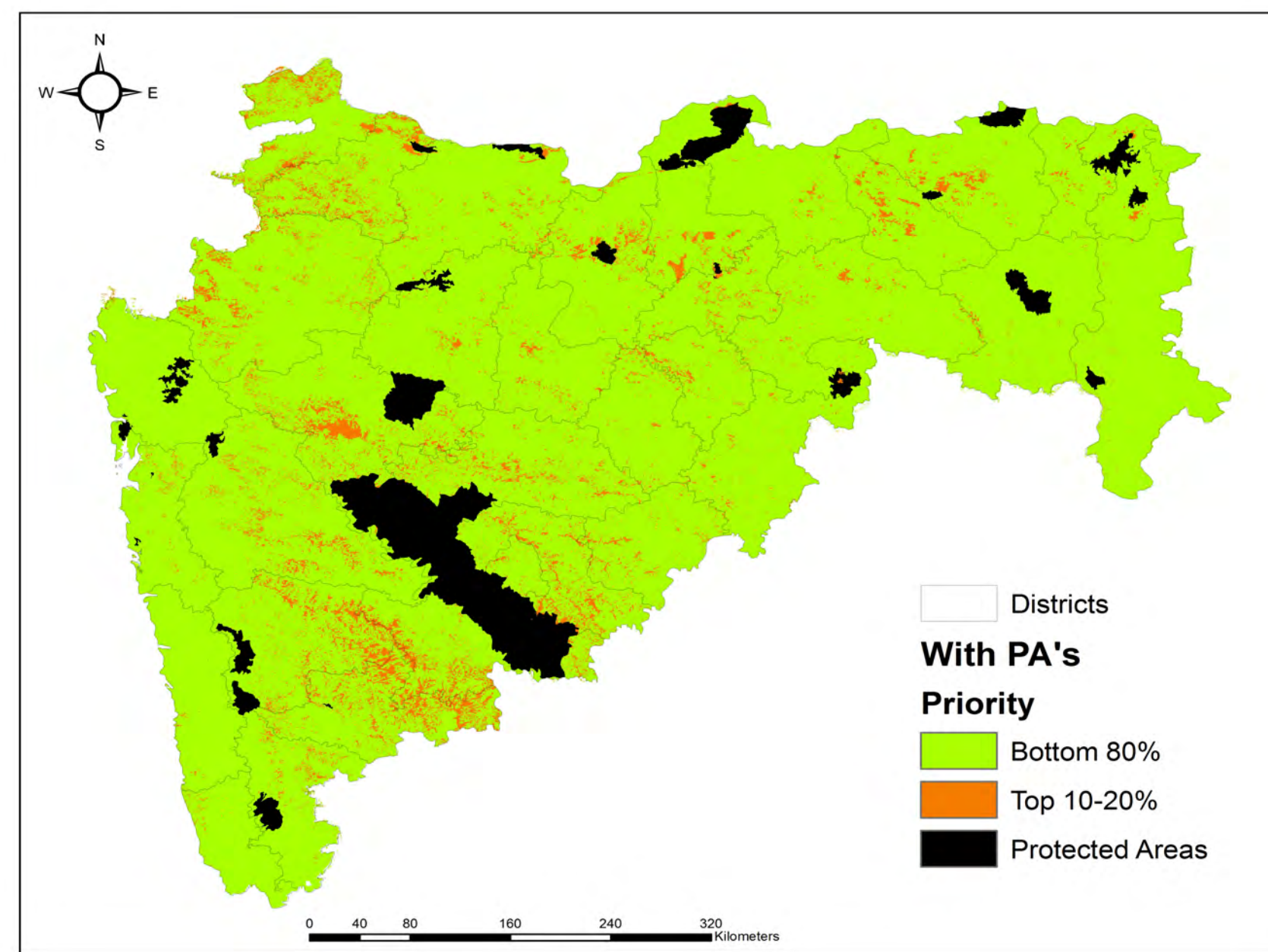
- Iterative loss minimisation process producing priority rankings by removing features that lead to smallest loss in conservation value
- Scenario 1: Prioritising in and around Protected Areas
- Scenario 2: Prioritising using Spatial Threats
- Scenario 3: Prioritising using the administrative Unit Threat Indexes and Spatial Threats





# Priority Ranking Maps

*Simlai et al 2014: Biological Conservation (in review)*





# Results: Top 10% Priority Rankings of Feature Representations

Feature	Scenario 1 PA	Scenario 2 Spatial Threats	Scenario 3 Administrative Threat Index
Grassland	<b>12%</b>	81%	74%
Great Indian Bustard	<b>11%</b>	52%	35%
Lesser Florican	<b>6%</b>	82%	<b>18%</b>
Indian Wolf	<b>13%</b>	58%	55%
All Features	<b>9%</b>	60%	45%



# Implications

- First such SCP assessment for Grasslands in India
- There will be Trade Offs
- Re-thinking the traditional PA model in the future
- Explore the potential to incorporate qualitative social science data into SCP
- More interdisciplinary approach





**ASK ME  
QUESTIONS!**



**THANK YOU VERY MUCH**

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