

COMBINING INDEGINEOUS KNOWLEDGE AND OCCUPANCY SURVEY: A study of elusive animals in Northeast India

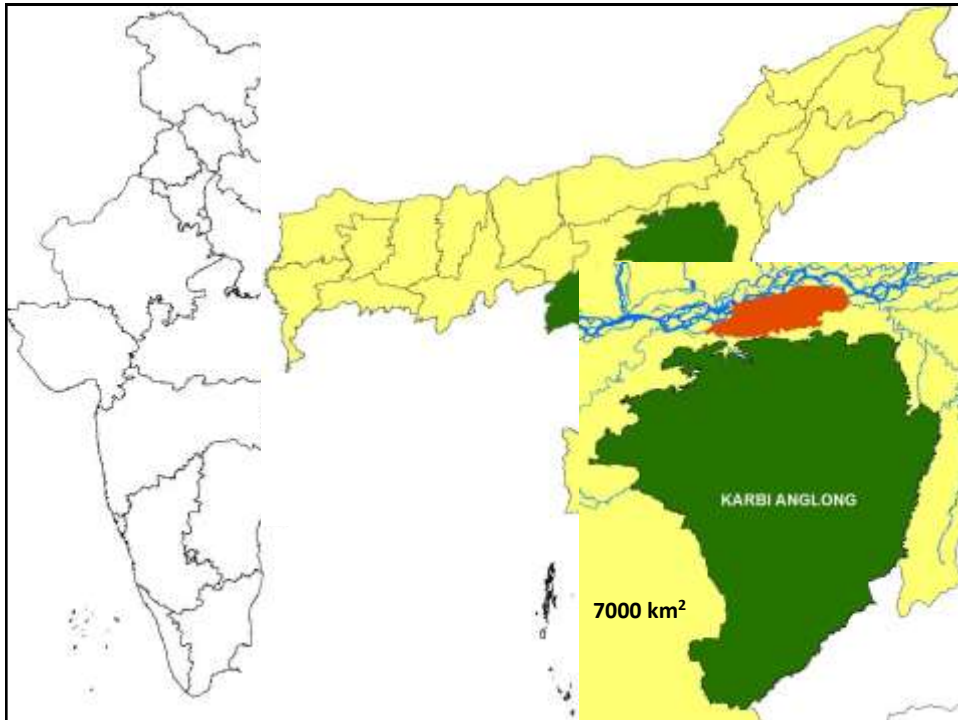
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Conservation Initiatives Aaranyak Northeast India

Presented by Munjali Tokbipi
Aaranyak

INTRODUCTION

- 🌍 Karbi-Anglong district in the State of Assam in
Northeast India



INTRODUCTION

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- Shares borders with Kaziranga NP- 100+ Tigers

Kaziranga National Park



Kaziranga Tigers



INTRODUCTION

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- Shares borders with Kaziranga NP- 100+ Tigers
- Predominant tribes- Karbi, Kuki, Dimasa, Kachari and Naga



WHY THIS STUDY?

- No ecological studies-inaccessibility, topography, constitutional status and armed conflict
- 80% forest
- Tiger Conservation landscape priority level-1 data deficient
- Priority landscape for elephant and amphibians
- Strategically located for conservation of critically endangered species

RESEARCH QUESTIONS

- Pattern of large mammal distribution in Karbi Anglong
- Interaction between wildlife and tribal communities
- Assess conservation potential

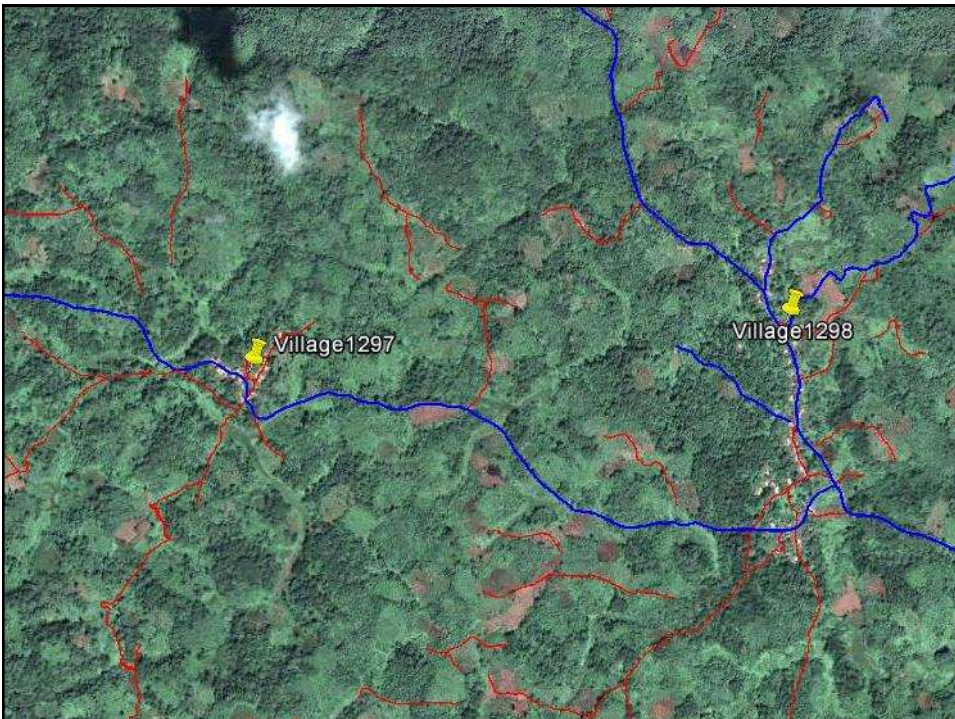
Karbi Anglong landscape pictures

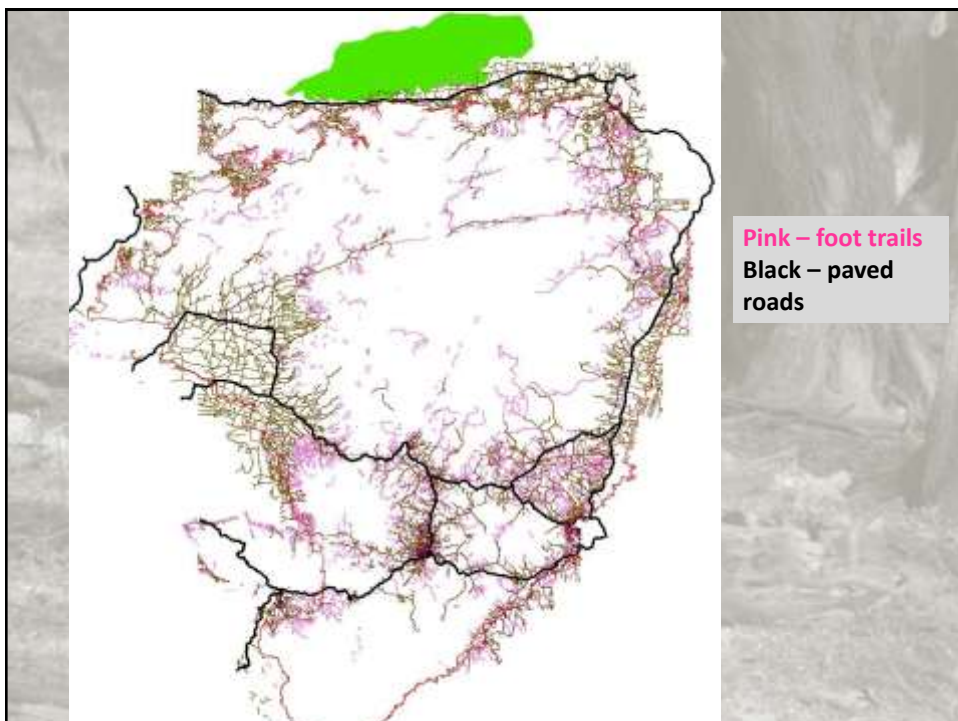
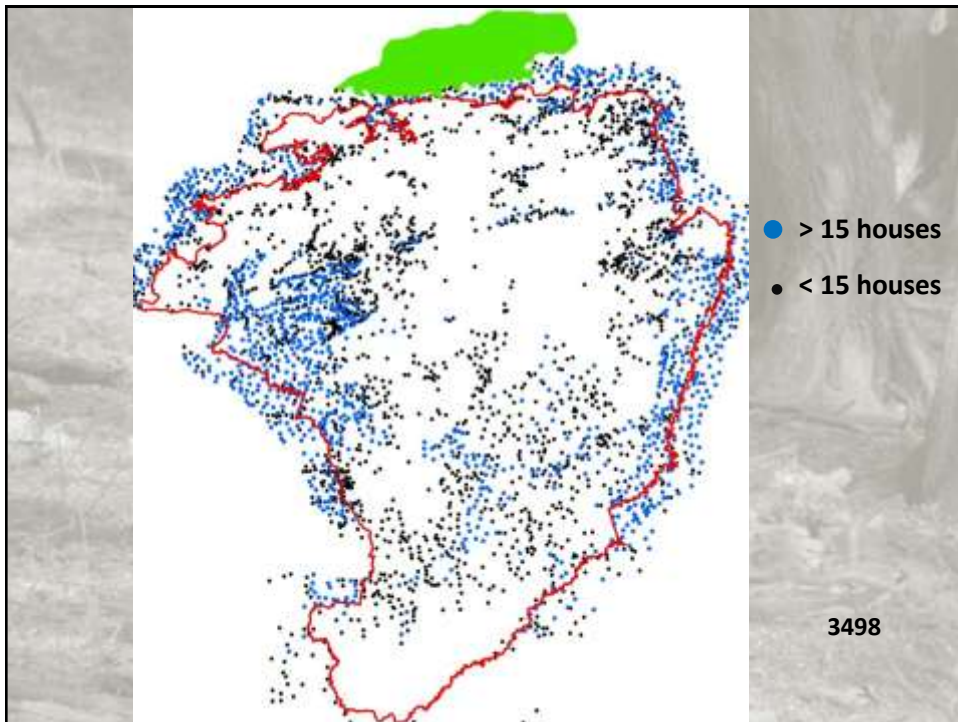


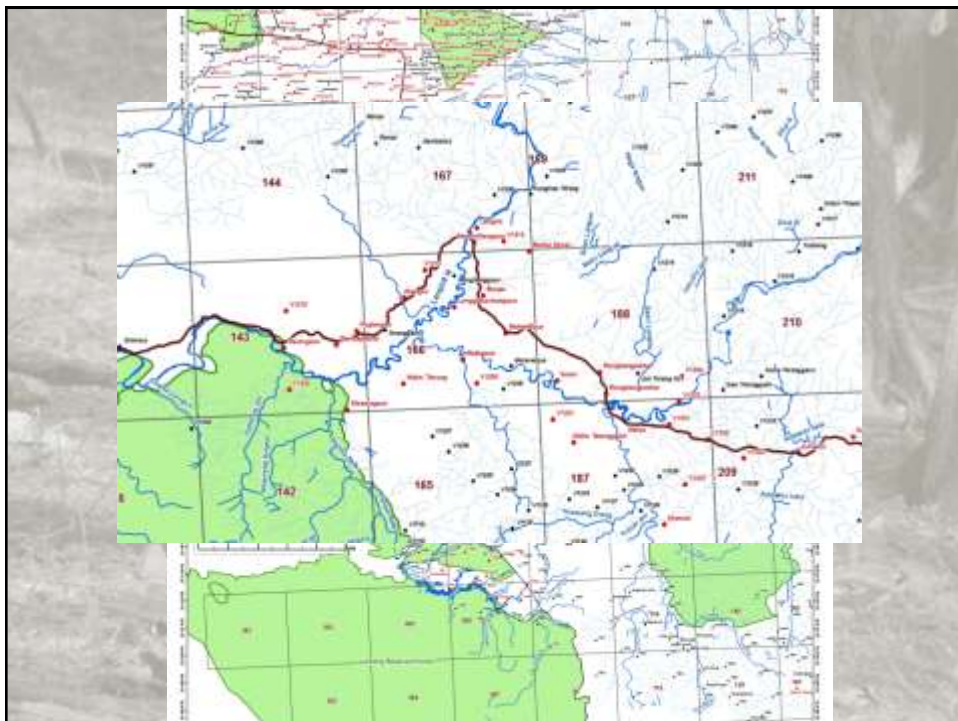
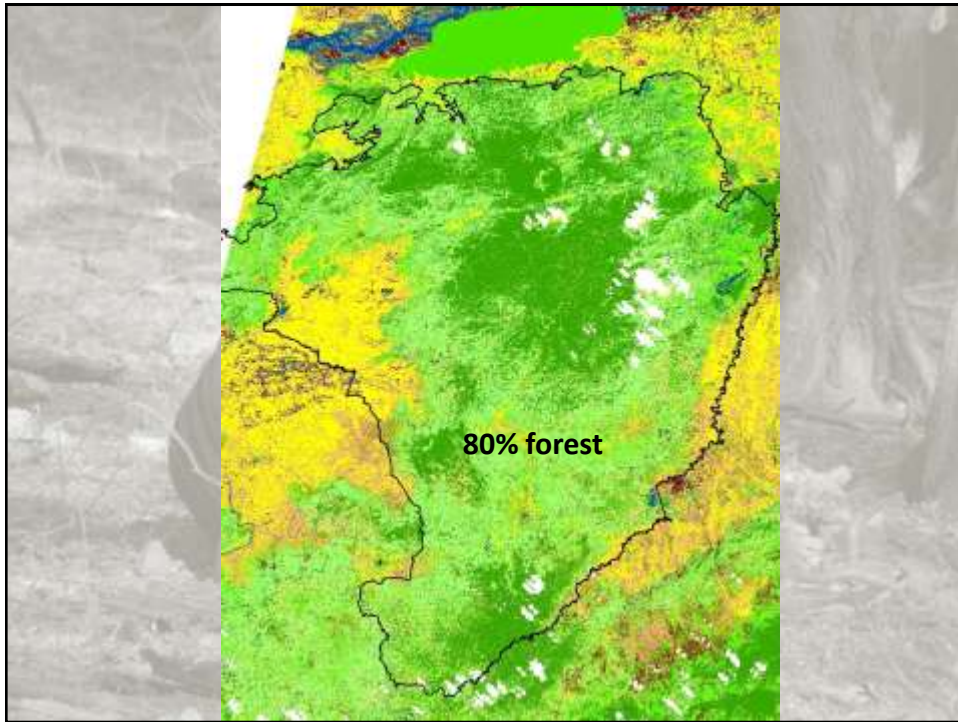
METHODOLOGY

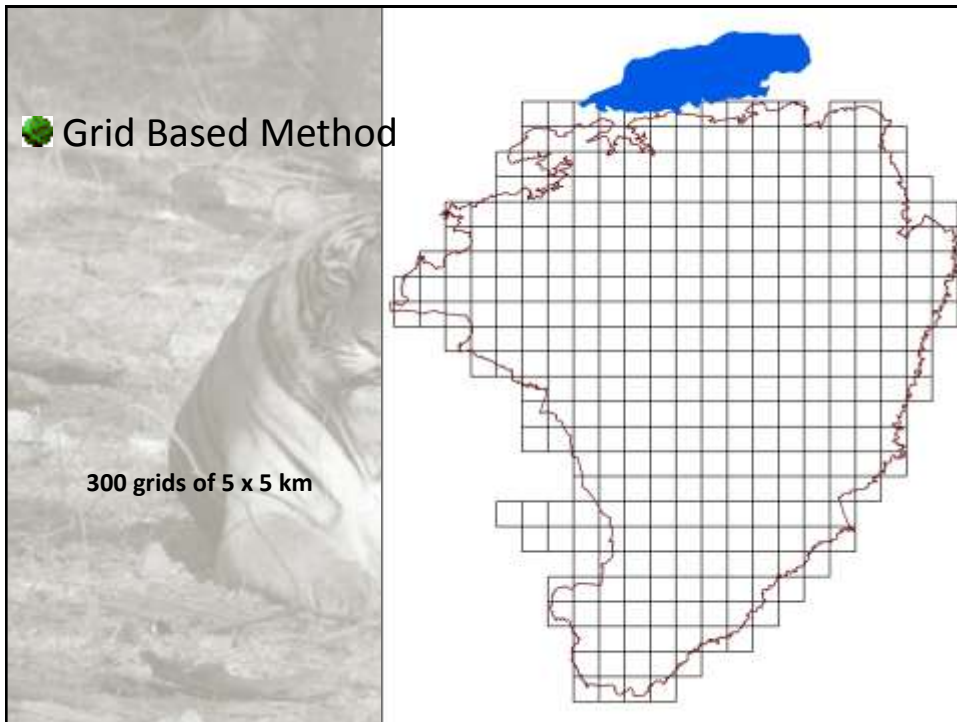
🌿 Data Generation

- ❖ Creating spatial database of settlements and roads using Google Earth









METHODOLOGY

- **Data Generation**
 - ❖ Creating spatial database of settlements and roads using Google Earth
- **Identified local youth and trained them in survey methods**



METHODOLOGY

🌿 Data Generation

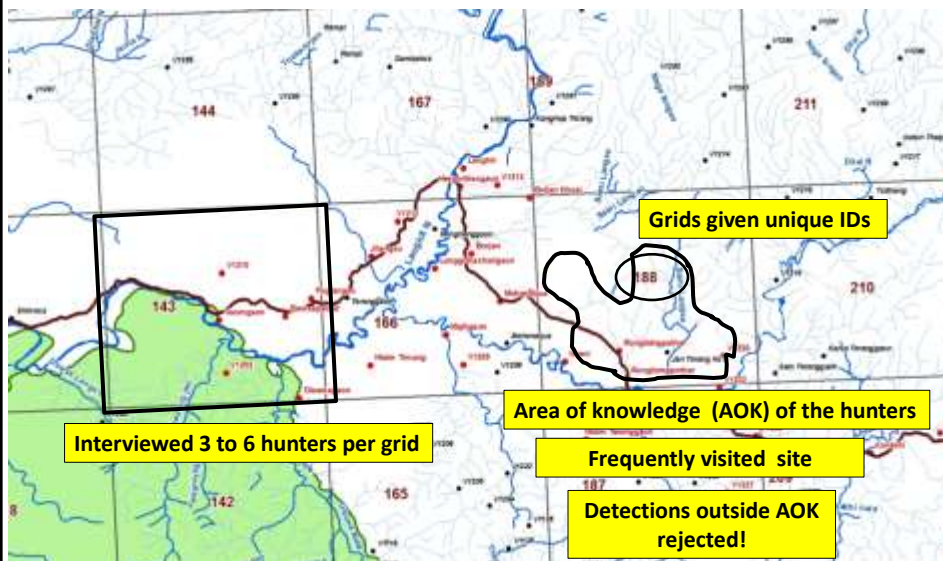
- ❖ Creating spatial database of settlements and roads using Google Earth

🌿 Identified local youth and trained them in survey methods

🌿 Interviews

- ❖ Structured interviews with key informants (Hunters, Shifting agriculturist)
- ❖ Animal sign surveys
- ❖ Occupancy surveys : Presence/Absence

METHODOLOGY



Methodology by: Zeller et al. 2011; Pillay et al. 2011; Karanth et al. 2010





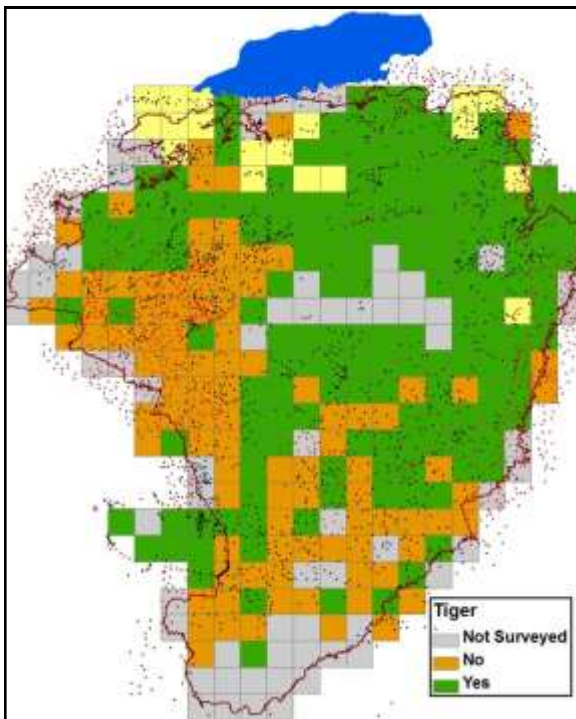
WHAT WE WERE ABLE TO DO

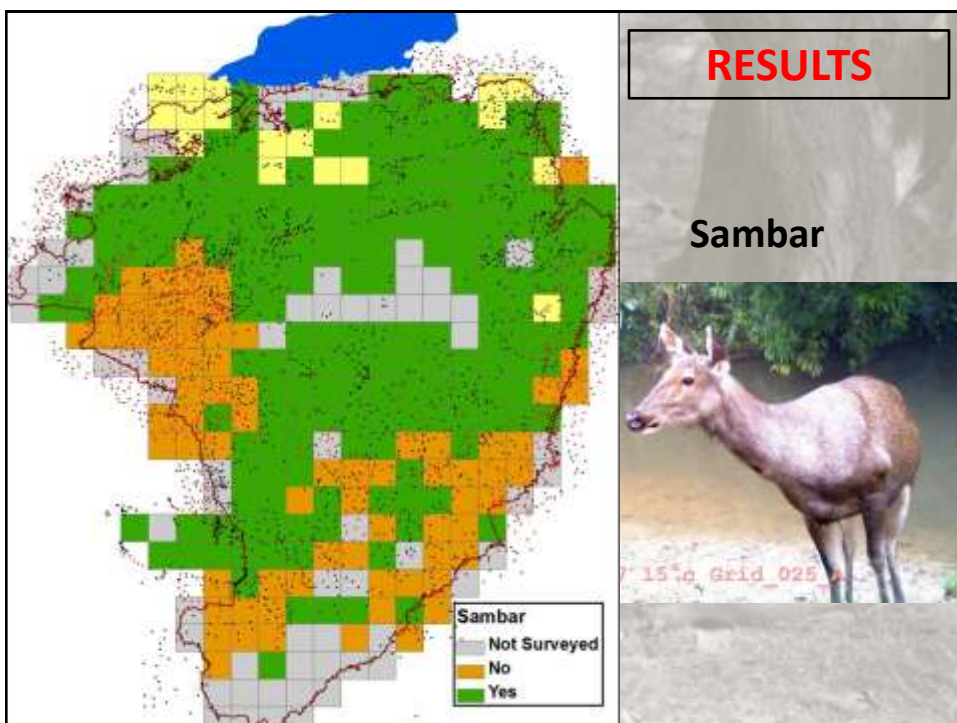
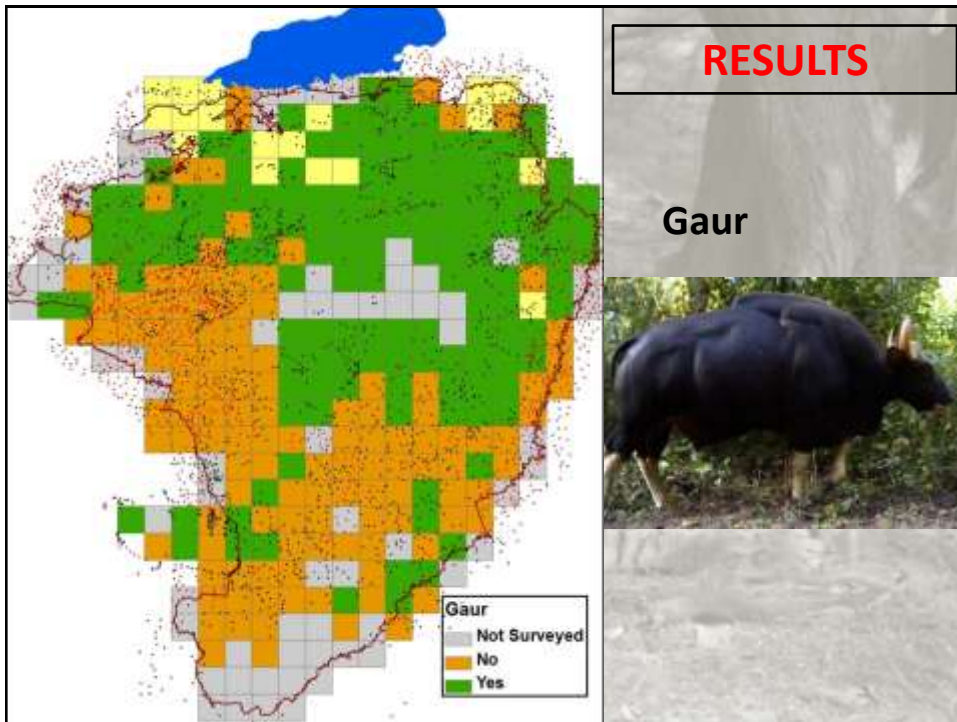
Interviewed **1200+**
hunters in
285 grids = 7000 km²
in
5 months!!!

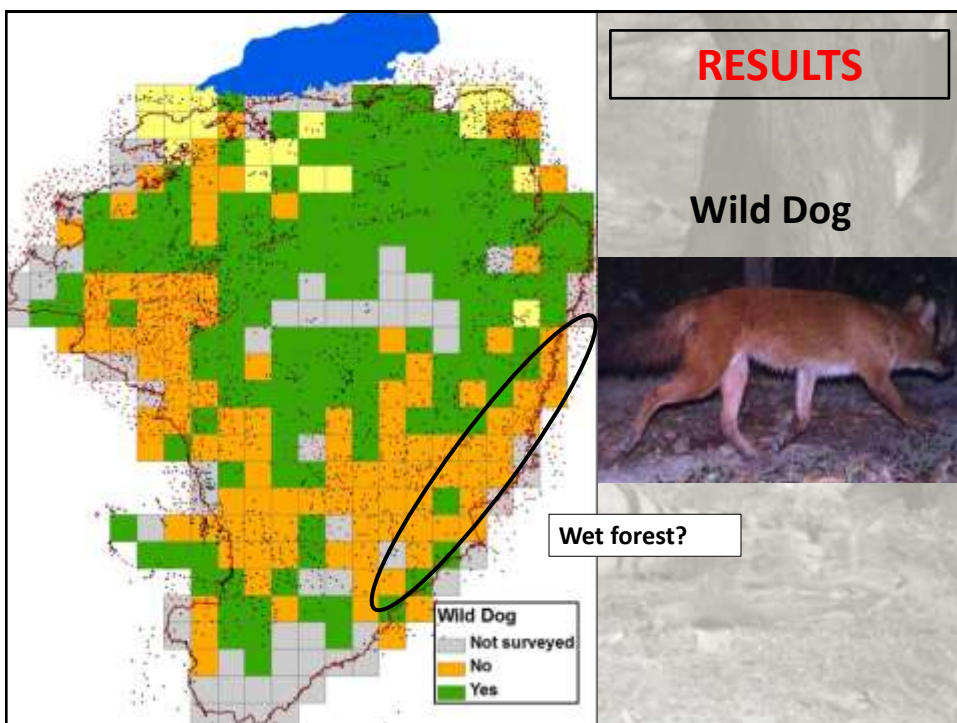
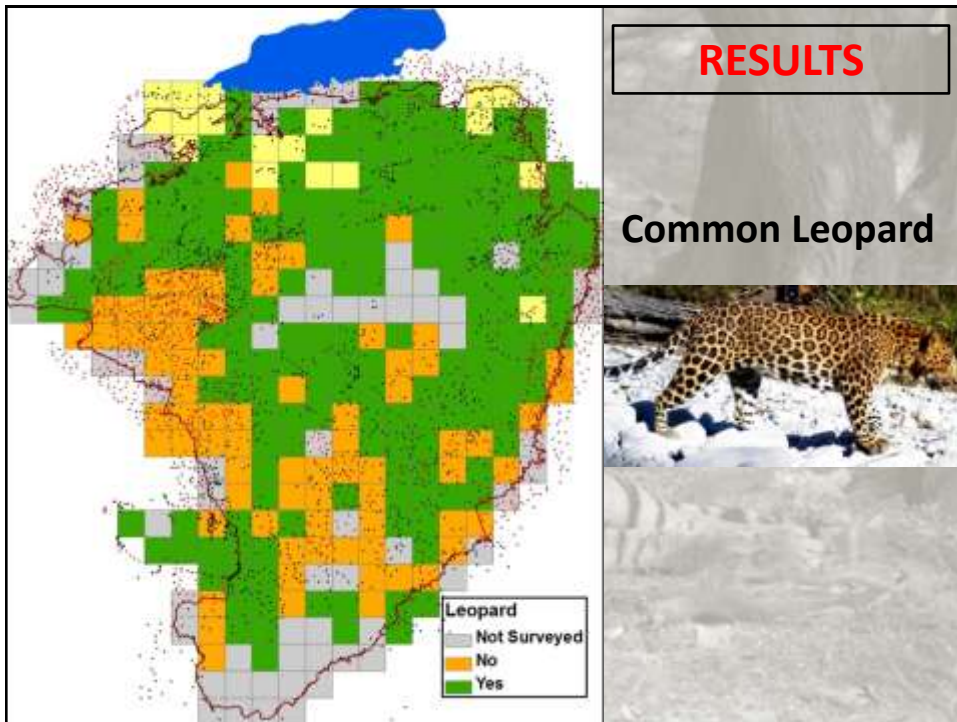


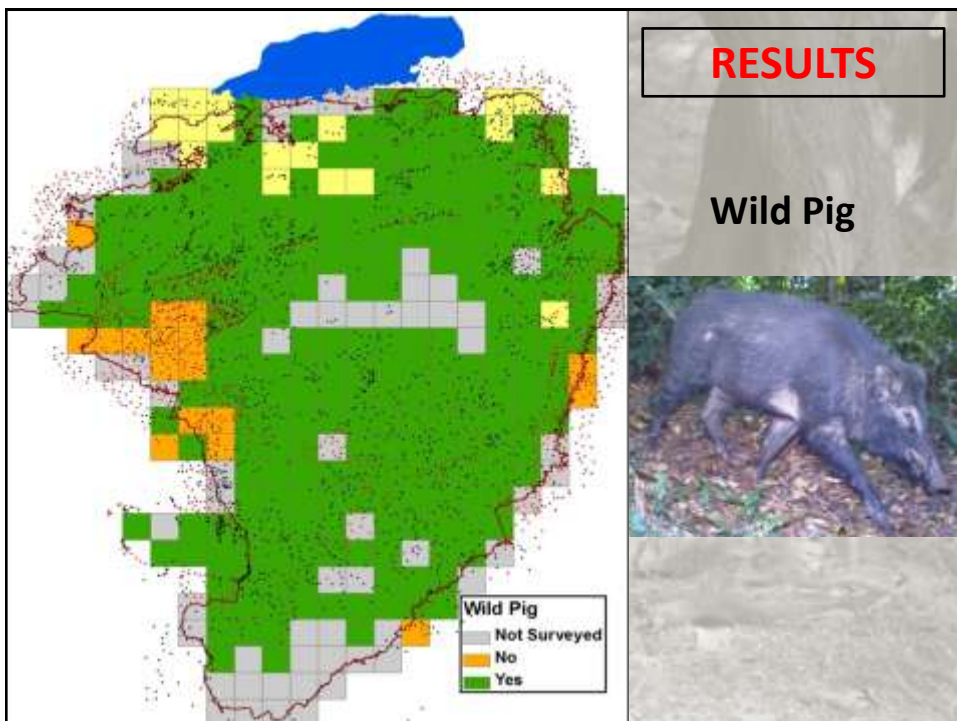
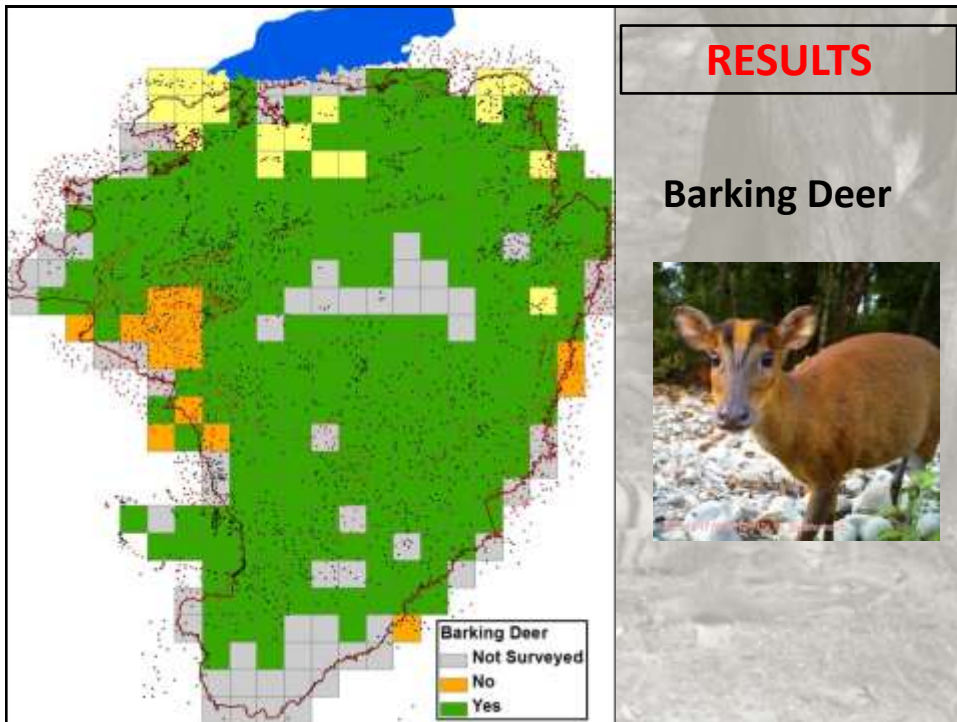
RESULTS

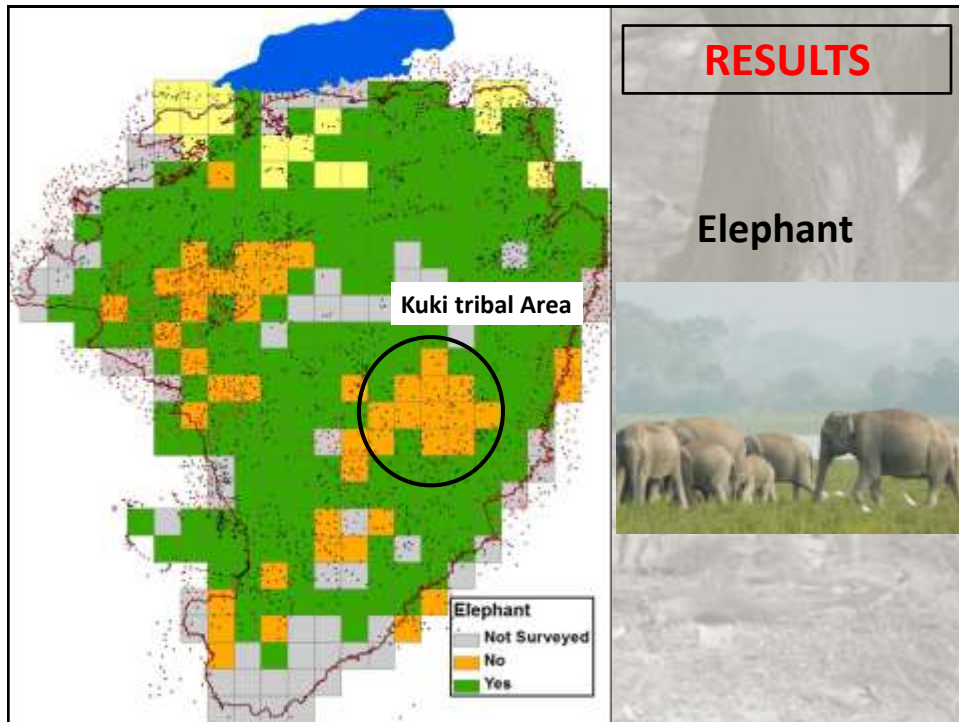
Tiger









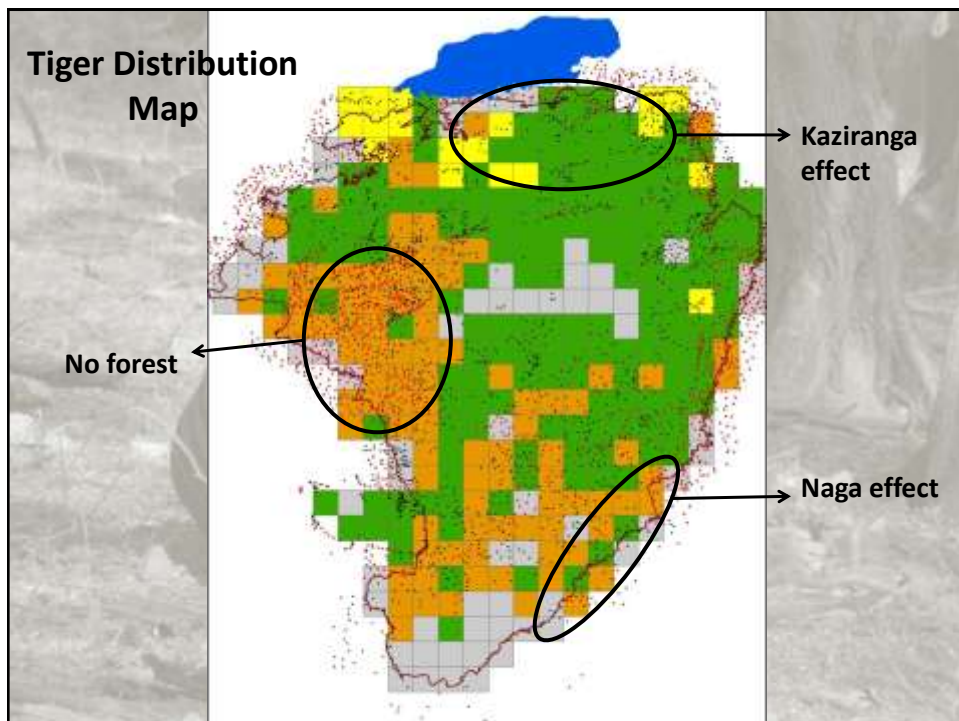


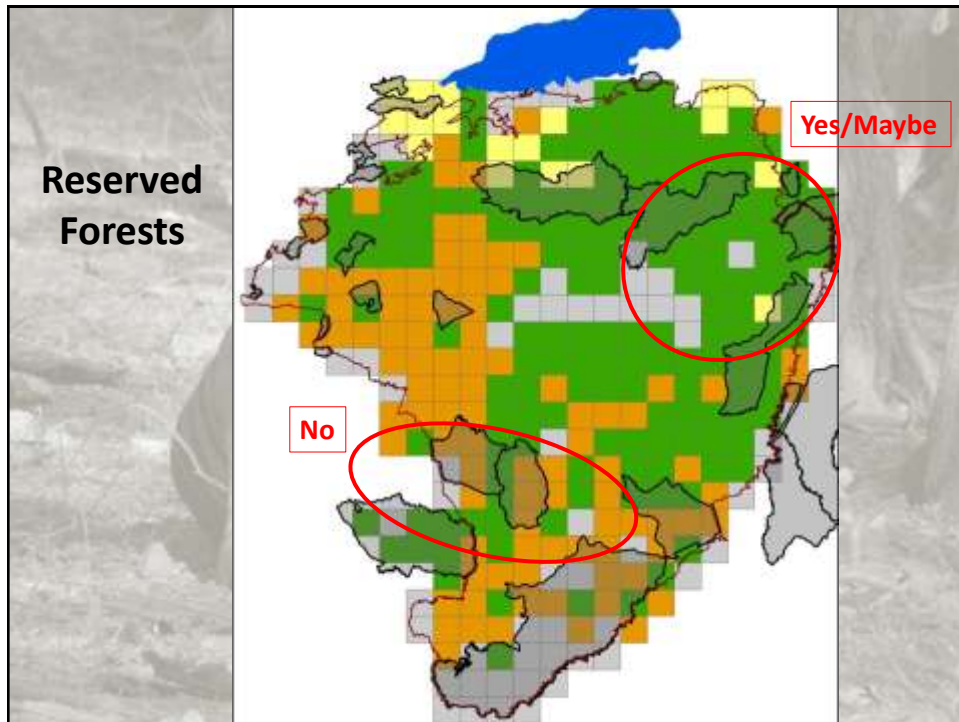
DISCUSSION

- Gaur has the most restricted range (sensitive to disturbance)
- Sambar, tiger and leopard (moderately sensitive)
- Elephant, Wild Pig, Barking Deer widely distributed (resilient)
- Kuki areas – no elephants
- Human-elephant conflict is a major problem

DISCUSSION

- Species distribution patterns influenced by
 - a. Forest cover,
 - b. Kaziranga NP,
 - c. Tribal communities,
 - d. Human density
 - e. Reserved forest??





DISCUSSION

- **Tiger continue to persist in Karbi Anglong:**
 - a. Tolerance by the Karbis
 - b. Low human density
 - c. Kaziranga NP
- **Armed conflict seems to have protected the wildlife**
- **Community land holding system**

NEXT STEPS

- Data analysis in occupancy framework
(PRESENCE)
- Consultation with Karbi Autonomous Council
 - Proposing new TIGER RESERVE
- More intensive surveys: sign surveys/camera trapping in high probability zones
- Starting a community conservation initiative

ACHIEVEMENTS

- Mobilized around 50 local youths in wildlife data collection
- Interviewed 1200+ hunters
- Covered every corner of the district
- Developed a huge network of young people who are starting to appreciate forest and wildlife

CHALLENGES and OPPORTUNITIES

- Civil unrest
- Inter-tribal conflict
- Accessibility
- Constitutional setup

ACKNOWLEDGEMENTS



1200+ Village Headmen and
Hunters

15 Volunteers

SCCS 2013 Brisbane Australia

